



A LUKEWARM WELCOME

An Analysis of the Media Reception of the
Swedish Report on Closer-to-Nature Forest
Management

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A Lukewarm Welcome - An Analysis of the Media Reception of the Swedish Report on Closer-to-Nature Forest Management

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Abstract

Closer-to-nature forest management (CNF) has emerged as an important component of European efforts to promote biodiversity, forest resilience and multifunctionality. In December 2023, the Swedish Forest Agency and Swedish Environmental Protection Agency published a government-commissioned report proposing a Swedish definition of CNF and measures to support its development. This thesis examines the initial Swedish media reception of the report between December 2023 and March 2024.

A qualitative media content analysis was conducted on 17 articles selected through systematic screening of 106 records retrieved from the Retriever media database. The analysis combined actor mapping with a SWOT framework to identify which actors participated in the debate and which strengths, weaknesses, opportunities and threats were associated with CNF.

The results show a highly uneven distribution of media representation, with political actors particularly prominent, followed by industry and forestry actors, while scientific and expert voices, environmental organisations and other stakeholders received substantially less representation. The SWOT analysis revealed considerable recognition of the environmental potential of CNF, particularly regarding biodiversity, sustainable forestry, and climate and resilience. At the same time, the reception was characterised by Scientific Uncertainty, Economic Threats, Political Conflict and other concerns surrounding implementation. Policy Development emerged as the most prominent opportunity.

Overall, the initial Swedish media reception of CNF can be characterised as a lukewarm welcome: environmental benefits were widely recognised, but support was tempered by concerns about scientific uncertainty, economic consequences and political conflict. The findings highlight the importance of knowledge development, implementation conditions and governance in translating CNF principles into Swedish forestry practice.

Keywords: Closer-to-nature forestry; Forest policy; Sweden; Media analysis; SWOT analysis; Forest governance

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1. Introduction

1.1 Background and problem formulation

European forests are expected to fulfil multiple functions, including timber production, biodiversity conservation, climate-change mitigation and adaptation, and the provision of social and economic benefits. The EU Forest Strategy for 2030 explicitly recognises this multifunctional role while emphasising the need to strengthen forest biodiversity, resilience and adaptation to climate change (European Commission, 2021). Building on these objectives, the EU Biodiversity Strategy for 2030 and the EU Forest Strategy for 2030 provided the policy context for the development of biodiversity-friendly and adaptive approaches to forest management, including closer-to-nature forest management (CNF) (European Commission, 2023).

Within this policy context, the European Commission published its Guidelines on Closer-to-Nature Forest Management in 2023. CNF is presented as an approach intended to promote biodiversity-friendly and adaptive forest management while supporting forest multifunctionality, climate resilience and socio-economic benefits (European Commission, 2023). Rather than prescribing a single silvicultural system, the guidelines provide a common framework intended to assist authorities and stakeholders in developing and promoting biodiversity-friendly and adaptive forest-management practices across different scales (European Commission, 2023).

The translation of these European ambitions into Sweden is particularly relevant because Swedish forestry operates within a distinctive governance context. Swedish forest policy has long sought to balance production and environmental objectives while granting forest owners substantial management autonomy through the principle of freedom with responsibility (Löfmarck et al., 2017). At the same time, the relationship between Swedish forestry and EU-level forest policymaking has historically been contested. Sweden has traditionally emphasised national competence over forests and forestry, although attitudes among Swedish forestry stakeholders towards greater European coordination have varied over time (Björstig, 2013). More recent research indicates that tensions concerning EU influence on Swedish forest management remain relevant, particularly in relation to the respective roles of national and EU-level forest policy and the balance between economic and environmental objectives (Pokorny-Kindlman, 2024).

The Swedish forestry context also involves a diverse range of stakeholders with potentially different interests in how forests should be managed. These include forest owners and their organisations, forest-industry actors, public authorities and political actors, environmental organisations, researchers and other

groups involved in forest use and governance. Previous research has demonstrated differences among Swedish forest stakeholders concerning forest management and the balance between production, environmental protection and other forest values (Andersson et al., 2022). The reception of CNF in Sweden may therefore concern not only the ecological principles of the approach, but also how different actors interpret its implications within an already contested forest-policy context.

Against this background, the Swedish government commissioned the Swedish Forest Agency (Skogsstyrelsen) and the Swedish Environmental Protection Agency (Naturvårdsverket) to examine conditions for developing continuous-cover forestry and to propose a definition of CNF adapted to Sweden. Their joint report, *Förutsättningar för hyggesfritt skogsbruk och definition av naturnära skogsbruk i Sverige*, was published on 12 December 2023 (Skogsstyrelsen & Naturvårdsverket, 2023). The proposed definition explicitly took both Sweden's production and environmental objectives and the European Commission's CNF guidelines as points of departure. The report also examined barriers, available knowledge and measures intended to improve the conditions for applying alternative forest-management methods in Sweden.

The publication of this report created an opportunity to examine how CNF was initially received within Swedish media debate. The reception of a forest-policy initiative depends not only on its formal objectives, but also on how its potential consequences are interpreted and communicated by different actors. Media coverage provides one arena in which these interpretations become publicly visible and in which different actors gain varying degrees of representation. Examining media coverage can therefore provide insight into both which actors participated in the initial debate and which perceived strengths, weaknesses, opportunities and threats became associated with CNF.

This thesis focuses specifically on the initial media response following publication of the Swedish report, covering December 2023 to March 2024. Concentrating on this period enables the study to examine the immediate reception of the report during a clearly defined initial phase of the debate. The study does not seek to determine whether CNF is environmentally or economically preferable to other forms of forest management. Instead, it examines how CNF was represented and evaluated within this initial Swedish media debate, providing an empirical account of the actors and perceived strengths, weaknesses, opportunities and threats that became visible as European CNF principles entered the Swedish forest-policy context.

1.2 Aim and research questions

The aim of this thesis is to examine the initial Swedish media reception of the Swedish report on CNF by identifying the actors participating in the debate and the perceived strengths, weaknesses, opportunities and threats associated with

CNF and its potential implementation in Sweden. The study focuses on the initial media coverage period between December 2023 and March 2024.

The study addresses the following research questions:

RQ1: Which actors participated in the media debate following the publication of the Swedish report on CNF during the initial media coverage period, December 2023–March 2024?

RQ2: What strengths, weaknesses, opportunities and threats regarding CNF practices and their potential implementation in Sweden were expressed by actors participating in the media debate?

2. Background and theoretical context

2.1 CNF

CNF is an approach to sustainable forest management intended to strengthen biodiversity, forest resilience and adaptation to climate change while maintaining the multiple functions of managed forests. Rather than constituting a single silvicultural system, CNF provides an overarching framework within which management can be adapted to different forest types, ecological conditions and management objectives (Larsen et al., 2022; European Commission, 2023).

Larsen et al. (2022) identify seven guiding principles underlying CNF: the retention of habitat trees, special habitats and dead wood; the promotion of native and site-adapted tree species; the promotion of natural regeneration; the use of partial harvests and promotion of structural heterogeneity; increased tree-species and genetic diversity; avoidance of intensive management operations; and support for landscape heterogeneity and functioning. Together, these principles seek to maintain or enhance ecological structures and processes within managed forests.

The European Commission's guidelines build on this conceptual foundation and emphasise biodiversity-friendly and adaptive forest management while recognising forest multifunctionality and socio-economic benefits (European Commission, 2023). CNF should therefore not be understood as the abandonment of forest management or timber production, but as an approach seeking to integrate productive forest use with biodiversity, resilience and adaptation objectives.

The context-dependent character of CNF is particularly important for its application across Europe. Its principles provide a direction for management rather than a uniform prescription, and their practical application can be adapted to local ecological and socio-economic conditions (Larsen et al., 2022; European Commission, 2023). This raises the question of how the broader European concept is interpreted within specific national forestry contexts, including Sweden.

2.2 CNF in the Swedish context

The application of CNF in Sweden needs to be understood in relation to existing Swedish forest-management concepts and practices. Of particular importance is *hyggesfritt skogsbruk*, generally translated as continuous-cover forestry. The Swedish Forest Agency defines *hyggesfritt skogsbruk* on productive forest land as management in which the forest remains continuously tree-covered and no large clear-cut areas are created (Skogsstyrelsen, 2021). Several management methods

can fall within this definition, including selection systems (*blädning*), gap cutting (*luckhuggning*) and management using retained shelterwood (*överhållen skärm*).

Although *hyggesfritt skogsbruk* and *naturnära skogsbruk* are closely related, they are not synonymous. *Hyggesfritt skogsbruk* primarily describes approaches that maintain continuous tree cover and avoid larger clear-cut areas, whereas *naturnära skogsbruk* refers to the broader CNF concept associated with ecological processes, biodiversity, resilience and structural diversity. A management method may therefore be *hyggesfri* without necessarily satisfying all principles associated with CNF. This distinction is reflected in the Swedish government assignment, which treated the development of conditions for *hyggesfritt skogsbruk* and the definition of *naturnära skogsbruk* as related but separate tasks (Skogsstyrelsen & Naturvårdsverket, 2023).

The resulting report, *Förutsättningar för hyggesfritt skogsbruk och definition av naturnära skogsbruk i Sverige*, was published in December 2023. It sought both to interpret the European CNF concept within Swedish forestry and to examine conditions for greater use of continuous-cover methods. The agencies reviewed barriers, available knowledge and business models and proposed measures concerning research, training, advisory services, economic incentives and the application of continuous-cover methods on state-owned forest land (Skogsstyrelsen & Naturvårdsverket, 2023).

The distinction between CNF as a broader management framework and *hyggesfritt skogsbruk* as a group of forest-management approaches is important for interpreting the media debate examined in this thesis. The Swedish report examined how CNF principles could be applied in the Swedish forestry context, including issues related to forest-management methods, available knowledge, profitability, incentives and policy development. In doing so, it situated CNF within an existing Swedish debate over how forests should be managed.

2.3 Swedish forest governance and stakeholder interests

Swedish forest governance provides an important context for understanding the reception of CNF. Since the reform of Swedish forest policy in the early 1990s, production and environmental objectives have formally held equal status, while forest owners have retained considerable freedom in determining how these objectives are pursued in practice. This governance model is commonly associated with the principle of *freedom with responsibility*, in which relatively broad management autonomy is combined with expectations that forest owners contribute voluntarily to environmental and other societal objectives beyond minimum legal requirements (Löfmarck et al., 2017; Lidestav & Westin, 2023).

This governance model operates within a forest sector characterised by diverse and sometimes competing interests. Forest owners and forest-industry actors have

economic interests connected to timber production and property rights, while environmental organisations and other actors may place greater emphasis on biodiversity conservation and ecological values. Political authorities and public agencies must simultaneously address environmental, economic and social objectives. Previous research has demonstrated substantial differences between actor groups concerning the role of forests, appropriate management practices and how competing objectives should be balanced (Andersson et al., 2022; Johansson, 2024).

These differences can make changes in forest policy and management politically contested. Research on Swedish forest governance has highlighted difficulties in reconciling competing interests through collaborative policy processes, particularly where actors differ in their objectives, knowledge claims and preferred policy instruments (Johansson, 2016; Johansson, 2024). At the same time, the reliance of Swedish forest policy on voluntarism and forest-owner responsibility means that policy objectives may depend substantially on whether forest owners and other actors regard proposed changes as legitimate, feasible and compatible with their interests (Lidestav & Westin, 2023).

This context is particularly relevant to CNF. Introducing or expanding management approaches associated with biodiversity, resilience and adaptation does not occur within an institutional vacuum. Their reception may also involve questions concerning economic consequences, scientific knowledge, forest-owner autonomy, policy intervention and responsibility for implementation. Examining which actors participated in the media debate and which strengths, weaknesses, opportunities and threats they associated with CNF therefore provides insight into how the approach entered this broader Swedish forest-policy context.

2.4 SWOT as an analytical framework

SWOT analysis provides a structured framework for identifying and organising strengths, weaknesses, opportunities and threats associated with a particular issue or course of action. Although commonly associated with strategic planning and organisational analysis, the framework has also been applied in natural-resource management to structure the examination of factors relevant to complex planning and decision situations (Helms & Nixon, 2010; Kajanus et al., 2012). Kajanus et al. (2012), for example, describe SWOT as providing a basic framework for analysing operational environments in support of strategic decision-making.

In the present study, SWOT was not used to evaluate CNF objectively or to determine whether its implementation should be pursued. Instead, it was adapted as an analytical framework for organising assessments of CNF expressed in the media material. Strengths represented positive characteristics or benefits attributed to CNF, while weaknesses represented current limitations or constraints. Opportunities represented future possibilities or developments that

could support CNF implementation, whereas threats represented future risks, pressures or negative consequences. The distinction therefore concerned not only whether an assessment was positive or negative, but also whether it described a current characteristic or a future possibility or risk.

The SWOT framework was operationalised through a set of subcategories developed prior to the systematic coding of the media material. These subcategories translated the four broad SWOT dimensions into categories relevant to the Swedish CNF context and provided an initial analytical structure for examining the material. The development and application of these categories are described further in the Methods section, while the resulting SWOT categories and their empirical distribution are presented in the Results.

3. Methods

3.1 Research design

This study applies a qualitative media content analysis to examine the initial reception of CNF in Sweden following the publication in December 2023 of the report *Förutsättningar för hyggesfritt skogsbruk och definition av naturnära skogsbruk i Sverige*, produced by the Swedish Forest Agency (Skogsstyrelsen) and the Swedish Environmental Protection Agency (Naturvårdsverket). The study focuses on how actors participating in the media debate perceived CNF and its potential implementation in the Swedish forestry context. It therefore examines the reception of CNF as expressed within the analysed media material, rather than evaluating the ecological or economic performance of CNF practices themselves.

Media articles were selected as the empirical material because the study examines the publicly visible reception of the Swedish CNF report following its publication. Media constitute an important arena in which forest-policy issues, actors and perspectives become publicly visible, while also influencing which issues and perspectives receive attention through processes of agenda-setting and framing (Feindt & Kleinschmit, 2011; Kleinschmit & Sjöstedt, 2014; Hallberg-Sramek et al., 2020). Analysing media coverage therefore makes it possible to examine which actors and evaluations were represented in the debate during the defined study period and, consequently, which strengths, weaknesses, opportunities and threats associated with CNF became visible in this media arena. This differs from sources such as interviews, which would capture responses elicited retrospectively by the researcher, or policy documents, which primarily represent institutional positions. Previous forest-policy research has similarly used media analysis to examine actor representation and the presentation of contested forestry issues in public debate (Feindt & Kleinschmit, 2011; Kleinschmit & Sjöstedt, 2014; Hallberg-Sramek et al., 2020). Hallberg-Sramek et al. (2020), for example, analysed Swedish newspaper coverage to identify the actors represented in the debate over woodland key habitats and how the issue was framed in the media. Media articles were therefore considered appropriate empirical material for addressing the study's focus on who participated in the initial media debate and what perceptions of CNF were expressed.

The analysis is primarily qualitative, as the identification of actors and the classification of statements according to the analytical categories require interpretation of the meaning and context of the text (Lindlof & Taylor, 2017). A predefined coding framework was used to systematically analyse the articles. The framework distinguishes between five actor groups and uses a SWOT structure to classify perceived strengths, weaknesses, opportunities and threats associated with

CNF. The complete coding framework and the procedure through which it was applied are described in Section 3.4.

Descriptive quantitative elements complement the qualitative analysis. Frequencies of coded segments and their distribution across documents were used to identify recurring patterns in the material, including the representation of different actor groups and the relative prominence of SWOT themes. This use of systematic frequency-based description is consistent with quantitative content-analysis approaches (Neuendorf, 2016). Code intersections were also examined to explore which analytical themes occurred in the same coded segments as particular actor groups. These frequencies are used descriptively and are not treated as statistical measures of attitudes or as representative of Swedish forestry actors as a whole. Instead, they provide a structured overview of patterns within the selected media corpus.

3.2 Media search and temporal delimitation

Media articles were collected using Retriever Research (Mediearkivet), a database providing access to Swedish print and online news sources. The search was conducted using the following search string:
naturnära AND (skogsskötsel OR skogsbruk)

The Retriever search covered the period from 1 December 2023 to 31 March 2024 and returned 106 records. The search began before the publication of the Swedish CNF report in order to capture the broader media material surrounding its release. However, because the purpose of the study was to examine the reception following publication of the report on 12 December 2023, records published before this date were subsequently excluded during the screening process.

Media attention in the Retriever results was strongly concentrated in December 2023 and declined during the following months. Of the 106 records retrieved, 60 were published in December, followed by 22 in January 2024, 14 in February and 10 in March.

3.3 Article selection and final corpus

The initial Retriever search returned 106 records, of which 31 were automatically classified by Retriever as similar records. These records were manually reviewed to assess the similarity classification and were found to represent content substantially similar to the records with which Retriever had grouped them. The 31 records classified as similar were subsequently excluded, leaving 75 records for manual screening. The remaining 75 records were then exported and manually screened to identify articles relevant to the study. The purpose of the screening

was to construct a corpus of independent media articles that substantively engaged with CNF in relation to the Swedish report and its implications.

Records were included when they were published on or after 12 December 2023 and substantively addressed CNF within the Swedish media debate during the study period. Explicit reference to the Swedish report was not required for inclusion, as the report served as the event delimiting the initial reception period rather than as a mandatory search criterion. Articles were excluded when they were published before the report, contained only passing or incidental references to CNF, or did not substantively address the topic relevant to the research questions.

The exported Retriever dataset also contained duplicate and derivative records that had not been captured by Retriever's similar-record classification. These were reviewed manually to avoid treating repeated publication of substantially the same content as independent contributions to the media debate. Where the same or substantially identical material appeared more than once, one version was retained for analysis and the additional records were classified as duplicates or derivative material.

Following the screening process, 17 independent articles met the inclusion criteria and constituted the final analytical corpus. The reduction from the initial 106 Retriever records reflects Retriever's initial classification and exclusion of 31 similar records, followed by the manual removal of pre-publication material, duplicates and derivative content, and records that did not substantively engage with the topic.

The final corpus comprised 17 media items, including nine news articles, six debate articles, one opinion piece and one press release. Outlets classified as national accounted for 10 of the 17 items, while four were published in local outlets and three were classified as other media sources. Coverage was therefore concentrated primarily in national and specialised forest- or policy-oriented media, with Altinget and ATL Lantbrukets Affärstidning among the most frequently represented outlets, alongside a smaller number of local newspaper articles. All 17 articles were imported into MAXQDA for coding and analysis. A complete list of the analysed articles, including publication dates, outlets, titles and article types, is provided in Appendix C. The selection process through which the final analytical corpus was constructed is presented in Figure 1.

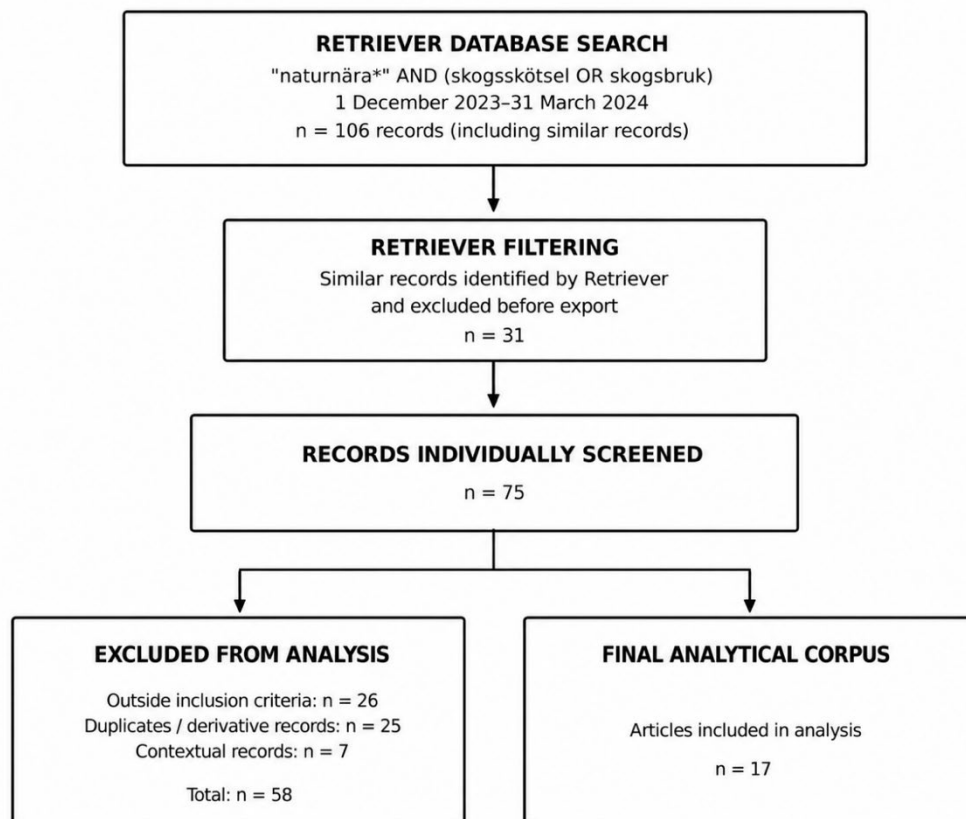


Figure 1. Selection and screening process used to construct the final analytical media corpus. “n” denotes the number of records at each stage of the selection process. “Similar records” refers to records classified as similar by Retriever and excluded before export; duplicates or derivative records were identified separately during manual screening. Contextual records were retained as background material but were not included in the analytical corpus.

3.4 Coding framework and procedure

The selected articles were analysed using a structured coding framework developed specifically for this study and implemented in MAXQDA. The framework was designed to address the two main analytical components of the research: identifying the actors represented in the media debate and examining how CNF was interpreted. The final coding framework consisted of three components: meta information, actor categories and a SWOT-based analytical framework. The complete coding handbook, including definitions, inclusion and exclusion criteria and decision rules for individual codes, is provided in Appendix A.

Table 1. Overview of the coding framework used for the media analysis.

Analytical component	Categories	Analytical purpose
Meta information	Date; Outlet; Article Type	Describe and organise the media corpus
Actors	Political Actors; Industry & Forestry; Scientific & Expert Voices; Environmental NGOs & Activists; Other Stakeholders	Identify whose positions are represented
SWOT analysis	Strengths; Weaknesses; Opportunities; Threats	Identify how CNF and its potential implementation are interpreted

Meta information was recorded at the document level and included publication date, publication outlet and article type. Articles were classified by publication format as debate articles, reportage, news, press releases or opinion pieces. These variables were used to describe and organise the corpus rather than to code individual passages of text.

The coding framework was developed through an abductive approach, in which an initial analytical structure was established before systematic coding but its application required interpretation of the meanings expressed in the empirical material. Abductive reasoning involves moving between empirical meanings and social-scientific interpretation while maintaining a connection to the perspectives represented in the data (Bryman, 2012, p. 401). Accordingly, the categories used in this study were informed by the research questions, the SWOT framework and the conceptual and contextual literature on CNF and Swedish forest policy, rather than being generated solely from the media material. At the same time, coding required the content and context of individual media statements to be interpreted in order to determine how they fitted the analytical categories. This combination of an initial conceptually informed framework and interpretive engagement with the empirical material provided the basis for the coding handbook used in the analysis. No new categories were added during the systematic coding of the final media corpus; the predefined framework was retained throughout the analysis.

Actor coding was used to identify whose positions were represented in the articles. Five actor categories were distinguished: Political Actors (ACT_POL), Industry & Forestry (ACT_IND), Scientific & Expert Voices (ACT_SCI), Environmental NGOs & Activists (ACT_ENV), and Other Stakeholders (ACT_OTH). Actor categories were defined broadly to distinguish the principal institutional and societal groups relevant to the Swedish forest-policy debate while allowing individual actors to be grouped consistently across the media corpus. Actors were coded only when they expressed, were attributed, or were

clearly represented as holding a substantive position, assessment, recommendation, concern or argument concerning CNF. Actors that were merely mentioned without presenting a substantive viewpoint were therefore not coded. When several actors expressed relevant positions within the same passage, all applicable actor codes could be assigned.

The actor and SWOT categories served two distinct but complementary analytical purposes corresponding to the two research questions. Actor categories were used to identify whose positions were represented in the media debate, whereas the SWOT framework was used to analyse what strengths, weaknesses, opportunities and threats were expressed in relation to CNF. The two dimensions were therefore not treated as equivalent categories, but as separate analytical layers that could subsequently be examined together through code intersections.

The central analytical component was a SWOT framework distinguishing strengths, weaknesses, opportunities and threats associated with CNF. The four overarching dimensions provided the conceptual structure for organising the evaluations expressed in the media material, while the subcategories operationalised issues relevant to CNF and its potential implementation in the Swedish context. Strengths captured positive characteristics or benefits presented as inherent or currently associated with CNF, while weaknesses captured current limitations or disadvantages. Opportunities represented future possibilities or enabling conditions, whereas threats captured future risks or external pressures. The individual subcategories and their definitions are provided in full in the coding handbook in Appendix A.

A key coding distinction concerned the temporal and analytical boundary between the four SWOT dimensions. Positive or negative characteristics presented as already inherent in, or currently associated with, CNF were coded as strengths or weaknesses, whereas future possibilities and external developments were coded as opportunities or threats. Coding was based on the meaning of the statement rather than on individual keywords. The smallest meaningful passage expressing a clear evaluative claim was coded, and more than one SWOT code could be assigned to the same passage when it contained distinct analytical dimensions.

Actor and SWOT codes were treated as analytically distinct but could overlap within the same passage. A passage could, for example, identify an industry actor while also expressing an economic threat associated with CNF. Allowing these coding dimensions to overlap made it possible to examine intersections between actor groups and SWOT assessments without treating the two dimensions as equivalent.

The articles were originally published in Swedish and were translated into English prior to coding using Google Chrome's built-in translation function. Coding and analysis were conducted using the English translations, while the

original Swedish versions were consulted where necessary to verify meaning, specialised forestry terminology and context-dependent expressions. A translation glossary was maintained to ensure consistent translation of recurring Swedish forestry and institutional terminology and is provided in Appendix B.

3.5 Data analysis

Following coding, the coded material was analysed using descriptive frequencies and code-intersection analysis in MAXQDA. The purpose of the analysis was to identify patterns in actor representation, the distribution of SWOT categories and the relationships between these analytical dimensions.

Code frequencies were used to describe how often particular categories occurred within the corpus. For actor codes, frequencies represent the number of coded segments associated with each actor group rather than the number of individual actors. Document frequencies were also examined to determine in how many of the 17 articles each actor category appeared. SWOT frequencies similarly represent the number of coded segments assigned to each SWOT category or subcategory and should therefore not be interpreted as numbers of actors or articles.

To examine relationships between actor groups and the analytical categories, code intersections were analysed using MAXQDA's "Intersection of codes in a segment" criterion. An intersection was recorded when an actor code and a SWOT code overlapped within the same coded segment. This procedure was used to examine which SWOT assessments were directly associated with passages attributed to particular actor groups.

The intersection analysis focused on actor–SWOT relationships. Because the analysis identifies direct overlaps between codes rather than attributing every SWOT code in an article to actors appearing elsewhere in that article, intersection frequencies do not correspond to the overall frequencies of SWOT categories. An actor could therefore be represented in an article without producing a direct intersection with a SWOT code, and SWOT-coded passages could occur without intersecting with an actor code.

3.6 Methodological considerations and limitations

The study has several methodological limitations that should be considered when interpreting the findings. First, the analysis is based on a relatively small corpus of 17 articles published during a deliberately restricted period. The study therefore captures the initial media reception following publication of the Swedish CNF report rather than the broader or longer-term Swedish debate surrounding CNF. The findings should consequently not be interpreted as representative of Swedish

media coverage or stakeholder perspectives beyond the period and material analysed.

Second, the corpus was constructed through a specific Retriever search strategy. Although the search terms were selected to capture Swedish discussion of CNF, relevant material using different terminology may not have been retrieved. The Retriever search covered Swedish print and web media, including national, regional and local newspapers as well as trade and specialised publications. However, the corpus is limited to material indexed by Retriever within these selected source categories and therefore does not capture all arenas in which CNF may have been discussed, such as stakeholder websites, social media or other forms of institutional communication not represented in the database.

Third, media representation does not provide a direct measure of stakeholder opinion. The frequency with which an actor group appeared in the corpus reflects its visibility within the selected media material rather than its prevalence or importance within the Swedish forestry sector as a whole. Similarly, differences in actor representation may be influenced by the types of articles included, editorial choices and the policy event that generated the coverage. The actor analysis should therefore be interpreted as an analysis of mediated representation rather than as a survey of stakeholder attitudes.

The coding process also involves qualitative interpretation. Although a predefined coding handbook, explicit decision rules and a translation glossary were used to improve consistency, the classification of passages into actor and SWOT categories required interpretative judgement. In addition, the coding was conducted by a single researcher, meaning that intercoder reliability could not be assessed. The quantitative frequencies reported in the study should therefore be understood as structured descriptions of the coded material rather than as independently validated measurements.

Finally, the articles were translated from Swedish into English and the coding was conducted using the English versions. Translation may affect the interpretation of specialised forestry terminology or context-dependent expressions. To reduce this risk, the original Swedish articles were consulted where necessary during coding, and recurring terminology was documented through the translation glossary described in Section 3.4.

These limitations define the scope of the conclusions that can be drawn from the study. The analysis provides a systematic account of the actors and perceived strengths, weaknesses, opportunities and threats visible within a specific period of Swedish media reception, but it does not establish the distribution of opinions among Swedish forestry stakeholders generally or evaluate the objective performance of CNF as a forest-management approach.

4. Results

4.1 Overall patterns in the reception of CNF

The analysis identified 242 coded segments relating to strengths, weaknesses, opportunities and threats associated with CNF in the analysed media material. Strengths and opportunities together accounted for 168 coded segments (69.4%), compared with 74 segments (30.6%) coded as weaknesses or threats.

Opportunities constituted the largest of the four SWOT dimensions, with 88 coded segments, followed closely by strengths with 80. Threats accounted for 41 segments, while weaknesses were least frequent, with 33. Overall, positive SWOT dimensions were therefore more frequently coded than negative dimensions, although all four dimensions were represented in the material.

Figure 2. Overall SWOT profile of coded segments in the analysed media material.

This overall distribution nevertheless conceals substantial differences within each SWOT dimension. Particular strengths, weaknesses, opportunities and threats were considerably more frequent than others, as examined in the following sections.

4.2 Perceived strengths and opportunities

Among the strengths attributed to CNF, Biodiversity was the most frequently identified theme, with 25 coded segments. This was followed by Sustainable Forestry with 17 segments and Climate & Resilience with 14. Economic opportunities were identified in 12 segments, while Social Values and Knowledge and Innovation each occurred six times. Carbon Storage was included in the

predefined coding framework as a potential strength associated with CNF, but no statements in the analysed media corpus met the criteria for this category.

The most frequently coded strengths were therefore Biodiversity, Sustainable Forestry and Climate & Resilience. Biodiversity alone represented almost one-third of all strength coding (31.3%). Together, Biodiversity, Sustainable Forestry and Climate & Resilience accounted for 56 of the 80 strength segments, or 70.0%. Economic Opportunities and Social Values were present but less frequent.

Table 2. Frequency of perceived strengths associated with closer-to-nature forestry in the analysed media material.

Strength	Frequency
Biodiversity	25
Sustainable Forestry	17
Climate & Resilience	14
Economic Opportunities	12
Social Values	6
Knowledge & Innovation	6
Carbon Storage	0
Total	80

Qualitatively, Biodiversity referred to perceived benefits of CNF for biological diversity and forest habitats, including greater variation in forest structure, tree species and age composition. Sustainable Forestry captured statements presenting CNF as contributing to more continuous and long-term forest management, particularly through reduced reliance on clear-cutting and greater use of continuous-cover approaches. Climate & Resilience concerned the capacity of more diverse forest structures to improve resilience to climate-related disturbances, fire, drought, storms, pests and other environmental pressures. Economic Opportunities captured current economic benefits associated with CNF, while Social Values concerned benefits related to recreation, cultural values and other social functions of forests. Knowledge & Innovation as a strength referred to existing knowledge, experience or management approaches presented as supporting the development or application of CNF. Together, these categories show that the perceived strengths of CNF were not limited to biodiversity conservation, but extended to broader ideas of forest resilience, long-term management and multifunctionality.

Opportunities represented the largest SWOT dimension in the material, but their distribution was particularly uneven. Policy Development accounted for 45 of the 88 opportunity-coded segments, representing 51.1% of all opportunities. Innovation was the second most frequent opportunity with 17 segments, followed by Collaboration with 13 and Financial Incentives with nine. Market Opportunities appeared four times. International Leadership was included in the

predefined coding framework as a potential opportunity associated with CNF, but no statements in the analysed media corpus met the criteria for this category.

Table 3. Frequency of perceived opportunities associated with closer-to-nature forestry in the analysed media material.

Opportunity	Frequency
Policy Development	45
Innovation	17
Collaboration	13
Financial Incentives	9
Market Opportunities	4
International Leadership	0
Total	88

Policy Development was therefore the most frequently coded opportunity and the single most frequent SWOT subcategory in the analysis. Qualitatively, this category captured statements presenting the CNF report and its recommendations as possibilities for developing forest policy or encouraging changes in forest-management practices. These included proposals for state forest owners to increase their use of no-clearcut methods and references to the report as a basis for continued policy debate and development. Innovation concerned possibilities for developing or testing new forestry methods and learning through practical application, while Collaboration referred to opportunities for greater cooperation between actors such as public authorities, the forest industry, politicians, researchers and forest owners. Financial Incentives concerned economic support or incentives that could facilitate changes in management, whereas Market Opportunities captured possibilities associated with markets, timber buyers or new sources of forestry revenue. Opportunities were therefore dominated not by benefits assumed to arise automatically from CNF, but by possibilities for further policy, management and institutional development.

4.3 Perceived weaknesses and threats

Weaknesses were considerably less frequent than strengths or opportunities, accounting for 33 coded segments. However, more than half of these concerned Scientific Uncertainty. Scientific Uncertainty occurred in 18 segments, representing 54.5% of all weakness coding. Practical Challenges occurred six times, Economic Costs four times, Knowledge Gaps three times and Productivity twice. No segments were coded as Administrative Burden.

Table 4. Frequency of perceived weaknesses associated with closer-to-nature forestry in the analysed media material.

Weakness	Frequency
Scientific Uncertainty	18
Practical Challenges	6
Economic Costs	4
Knowledge Gaps	3
Productivity	2
Administrative Burden	0
Total	33

Qualitatively, Scientific Uncertainty referred to statements questioning whether the evidence base for CNF was sufficiently established, including references to limited long-term research, disagreement over expected effects and uncertainty concerning the consequences of different management approaches. This differed from Knowledge Gaps, which concerned practical knowledge, experience or guidance needed to apply CNF. Practical Challenges referred to operational difficulties associated with implementing CNF methods, while Economic Costs concerned current financial disadvantages or additional costs associated with these approaches. Productivity captured concerns about possible reductions in timber production or forest yield. The prominence of Scientific Uncertainty therefore indicates that the most frequently expressed weakness concerned confidence in the available knowledge base rather than operational or economic limitations alone.

The pattern among threats was different. Of the 41 threat-coded segments, Economic Threats were most frequent, occurring 17 times. Political Conflict followed with 11 segments, while Polarisation occurred eight times. Regulatory Uncertainty was identified four times and Timber Supply once. No Rural Livelihoods threats were identified.

Table 5. Frequency of perceived threats associated with closer-to-nature forestry in the analysed media material.

Threat	Frequency
Economic Threats	17
Political Conflict	11
Polarisation	8
Regulatory Uncertainty	4
Timber Supply	1
Rural Livelihoods	0
Total	41

The weakness and threat dimensions therefore displayed different distributions. Weakness coding was dominated by Scientific Uncertainty, whereas threats concerned primarily possible future economic and political consequences of CNF implementation. Economic Threats captured concerns about future costs, reduced revenues or other adverse economic consequences for forest owners and the forestry sector. Political Conflict referred to the possibility that CNF and associated policy changes could intensify disagreements over forest management and the balance between production and environmental objectives, while Polarisation concerned the risk of increasingly divided or confrontational positions within the forest debate. Regulatory Uncertainty captured concerns about future rules, restrictions or regulatory requirements, and Timber Supply referred to possible consequences for the future availability of timber. Political Conflict and Polarisation together accounted for 19 of the 41 threat-coded segments.

4.4 Actor patterns in the reception of CNF

The actor analysis revealed an uneven distribution of representation among the five actor groups included in the coding framework. Political actors were the most extensively represented group, with 134 actor-coded segments and appearances across all 17 analysed documents. Industry and forestry actors accounted for 39 coded segments and appeared in ten documents. Scientific and expert voices accounted for 12 coded segments across four documents, while environmental NGOs and activists accounted for 11 segments across five documents. Other stakeholders were represented by only two coded segments in one document.

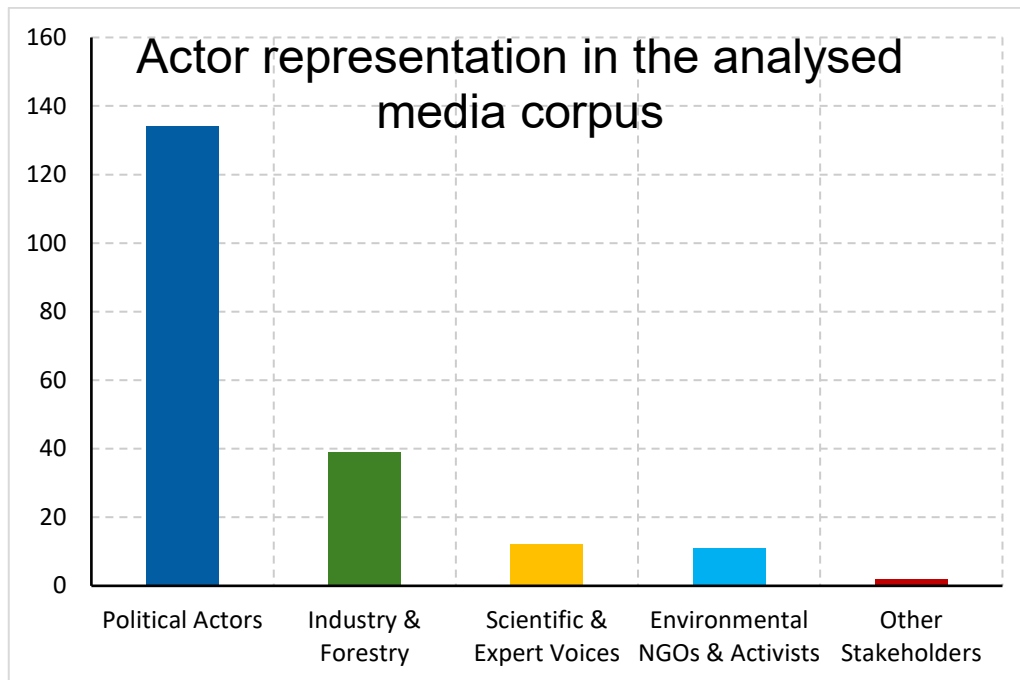


Figure 3. Frequency of actor-coded segments by actor category in the analysed media corpus.

The composition of these broad actor categories provides further context for this uneven distribution. Within the Political Actors category, public authorities were particularly visible, notably the Swedish Forest Agency and the Swedish Environmental Protection Agency, which were responsible for producing the Swedish CNF report. Their representatives, including Carl Appelqvist from the Swedish Forest Agency, appeared in the coverage explaining the report, its proposed definition of CNF and measures for its implementation. The category also included party-political actors and political institutions, meaning that the high frequency of Political Actors should not be interpreted as representation by politicians alone. Rather, it reflects a media debate in which public authorities directly connected to the report were strongly represented alongside party-political actors.

The other actor categories were more heterogeneous but substantially less represented. Industry & Forestry included forestry companies, forestry professionals, timber buyers and private forest-owner interests. Scientific & Expert Voices included researchers and university-based expertise, including researchers associated with SLU, while the comparatively small Environmental NGOs & Activists category included environmental advocates such as Sebastian Kirppu and Mattias Ahlstedt. The low representation of Scientific & Expert Voices and Environmental NGOs & Activists contrasts particularly strongly with the dominance of the Political Actors category.

These frequencies describe the representation of actor groups within the corpus rather than the number of individual actors. Political actors were therefore the most extensively represented actor group, followed by industry and forestry actors, while scientific, environmental and other stakeholder groups had substantially fewer actor-coded segments.

The code-intersection analysis provides additional information about the SWOT dimensions directly associated with actor-coded passages. Political actors had the largest number of actor–SWOT intersections, with 27 in total. Opportunities accounted for 14 of these intersections and threats for nine, while strengths and weaknesses accounted for two each. Industry and forestry actors had 19 actor–SWOT intersections, distributed primarily between opportunities (9) and threats (8), with two intersections involving strengths. Scientific and expert voices had five intersections, comprising three opportunities and two strengths. No direct actor–SWOT intersections were identified for environmental NGOs and activists or other stakeholders under the selected segment–intersection criterion.

Table 6. Intersections between actor codes and SWOT dimensions in the analysed media material. Values represent direct intersections between actor and SWOT codes within coded segments in MAXQDA.

Actor group	Strengths	Weaknesses	Opportunities	Threats
Political Actors	2	2	14	9
Industry & Forestry	2	0	9	8
Scientific & Expert Voices	2	0	3	0
Environmental NGOs & Activists	0	0	0	0
Other Stakeholders	0	0	0	0

At the subcategory level, political actor coding intersected most frequently with policy development (9). Economic threats and collaboration each accounted for four intersections, followed by polarisation (3), sustainable forestry (2), practical challenges (2), political conflict (2) and innovation (1). Opportunities and threats therefore accounted for most direct SWOT intersections involving political actors.

Industry and forestry actors displayed a different distribution. Economic threats were the most frequent intersection (6), followed by policy development (4) and collaboration (3). Polarisation occurred twice, while social values, economic opportunities, innovation and market opportunities each occurred once. As with political actors, most direct intersections concerned opportunities and threats rather than strengths or weaknesses.

The intersection patterns also reveal differences in how the two most represented actor groups engaged with CNF. Political actor intersections were oriented particularly towards Policy Development, reflecting the strong representation of public authorities and policy-related discussion in the corpus,

but also included both opportunities for Collaboration and concerns relating to Economic Threats, Political Conflict and Polarisation. Industry and forestry actors likewise combined positive and negative assessments. Their opportunities concerned particularly Policy Development and Collaboration, including possibilities for cooperation between forestry actors, authorities and policymakers, while their threats were dominated by Economic Threats, including concerns about costs, restrictions affecting private forest owners and consequences for forest-sector revenues. The nearly even distribution between industry-associated opportunities (9) and threats (8) therefore reflects a mixed profile in which possibilities for future development coexisted with concerns about the economic and regulatory consequences of change.

Scientific and expert voices had considerably fewer actor–SWOT intersections. Knowledge and innovation and collaboration each occurred twice, while innovation occurred once. No direct intersections with weaknesses or threats were identified for this actor group.

No direct SWOT intersections were identified for environmental NGOs and activists or other stakeholders under the selected segment–intersection criterion. This indicates only that their actor-coded passages did not directly overlap with SWOT codes under this criterion; it should not be interpreted as an absence of views expressed by these groups in the corpus.

4.5 Synthesis of the reception

Across the analysed material, strengths and opportunities were more frequently coded than weaknesses and threats. Biodiversity, Sustainable Forestry and Climate & Resilience were the most frequent strengths, while Policy Development was the dominant opportunity. Scientific Uncertainty was the most frequent weakness, whereas Economic Threats, Political Conflict and Polarisation were the principal threat categories. The qualitative content of these categories shows a reception in which environmental benefits were recognised alongside questions concerning the scientific basis, economic consequences and political conditions of CNF implementation.

Actor representation was strongly uneven. Political actors were the most extensively represented group, with public authorities directly connected to the Swedish CNF report particularly visible, followed by industry and forestry actors. Scientific and expert voices, environmental organisations and other stakeholders received substantially less representation. The actor–SWOT analysis further showed that political and industry actors were associated with both opportunities and threats. Political actor intersections were particularly concentrated around Policy Development, while industry and forestry actors combined opportunities relating to policy development and collaboration with concerns dominated by Economic Threats.

Taken together, the results show that the initial media reception of CNF combined substantial recognition of its environmental and developmental potential with reservations concerning its evidence base and the economic and political consequences of implementation. These assessments were expressed within a media debate characterised by strongly uneven actor representation. The implications of these patterns for understanding the initial Swedish media reception of CNF are discussed in Chapter 5.

5. Discussion

5.1 A lukewarm reception of CNF

The findings suggest that the initial Swedish media reception of CNF was neither predominantly hostile nor characterised by unequivocal support. Although strengths and opportunities clearly outweighed weaknesses and threats in the analysed material, this should not be interpreted as straightforward endorsement of CNF. Recognition of its potential benefits coexisted with uncertainty concerning its scientific basis, economic consequences and political implementation. The overall reception was therefore favourable in several respects, but also distinctly qualified.

This qualification is particularly apparent in the prominence of opportunities. Rather than indicating that existing conditions for CNF implementation were regarded as satisfactory, many opportunities concerned what could still be developed through policy, innovation, collaboration and financial support. The prominence of opportunities can therefore be interpreted as reflecting both interest in CNF and recognition that wider implementation would depend on further institutional and practical development.

A similar distinction can be made between the objectives associated with CNF and confidence in their implementation. Biodiversity, Sustainable Forestry and Climate & Resilience were prominent perceived strengths, corresponding closely with the environmental objectives of the EU guidelines (European Commission, 2023). At the same time, scientific uncertainty emerged as an important reservation. This suggests that actors could recognise the potential environmental benefits of CNF while remaining uncertain about the evidence, feasibility or conditions under which those benefits could be realised in Swedish forestry.

Such a reception should also be understood within the broader context of Swedish and European forest policy. Previous research has documented persistent tensions surrounding biodiversity conservation, timber production and forest governance at the European level (Sotirov et al., 2021), while Swedish forest-policy debates similarly involve conflicting perspectives concerning forest production, environmental objectives and the direction of forest-management change (Andersson et al., 2022). Against this background, the comparatively limited representation of environmental NGOs and activists in the analysed media corpus is notable. Environmental actors accounted for only 11 actor-coded segments across five articles, and no direct intersections between environmental actor codes and SWOT categories were identified under the segment-intersection criterion. This should not be interpreted as evidence that environmental organisations lacked positions on CNF, but rather as a finding about whose perspectives became visible in the media material captured by this study. The

initial media debate following publication of the report was instead strongly dominated by political actors and public authorities, suggesting that the immediate reception was framed primarily as a policy and implementation issue.

The position of industry and forestry actors was also more mixed than might be expected in a contested forest-policy context. Although economic threats were prominent in industry-associated passages, industry actors were not represented solely through opposition to CNF. Direct actor–SWOT intersections included nine opportunities and eight threats, with opportunities particularly related to policy development and collaboration, while threats were primarily associated with economic consequences and, to a lesser extent, polarisation. This suggests that industry responses combined concerns about the consequences of CNF implementation with engagement in how future policy and implementation might develop. The mixed pattern among industry actors therefore reinforces the broader characterisation of the reception as a lukewarm welcome rather than a simple division between environmental support and industrial opposition. The mixed reception identified here emerged within an already contested policy field rather than from the CNF report alone.

Taken together, the findings support characterising the initial reception as a lukewarm welcome. This does not imply indifference or predominantly negative attitudes towards CNF. Rather, it describes a reception in which considerable potential was recognised without corresponding unqualified acceptance of implementation. The initial media reception can therefore be understood as one in which actors recognised the potential of CNF while remaining divided or uncertain about the conditions under which that potential could be translated into Swedish forestry.

5.2 Environmental potential versus implementation uncertainty

A central tension in the reception concerns the contrast between recognition of the environmental potential of CNF and uncertainty surrounding its implementation. The prominence of biodiversity, sustainable forestry and resilience among the perceived strengths suggests that the environmental rationale underlying CNF was clearly recognised. This corresponds closely with the European rationale for CNF, which emphasises biodiversity and climate resilience in multifunctional managed forests and adaptation to ecological conditions and natural processes (Larsen et al., 2022). The findings therefore suggest that disagreement did not centre primarily on whether biodiversity, resilience and sustainable forest management constituted desirable objectives.

Recognition of these potential benefits was nevertheless accompanied by substantial uncertainty. Scientific uncertainty was the dominant perceived weakness, while knowledge gaps were also identified and knowledge- and

innovation-related themes appeared among the positive dimensions of the analysis. Knowledge therefore occupied a dual position in the reception: limitations in existing knowledge represented a constraint on implementation, while further knowledge development was simultaneously presented as part of the pathway towards wider application of CNF.

This tension is particularly relevant given the context-dependent character of CNF. Larsen et al. (2022) emphasise that CNF should be adapted to ecological and socio-economic conditions rather than implemented as a uniform management model across Europe. Translating broad CNF principles into Swedish forestry therefore raises questions about how expected outcomes can be demonstrated and how management approaches should be adapted to national and local conditions.

The importance attributed to policy development, innovation, collaboration and financial support further suggests that implementation itself was an important component of the reception. CNF was not simply discussed in terms of whether its principles were desirable, but also in relation to the institutional, financial and knowledge-related conditions required to translate those principles into practice.

Subsequent scientific research provides an interesting comparison. Stritih et al. (2026) found broad expert agreement that CNF is likely to benefit biodiversity and several ecosystem services, but also concluded that the empirical evidence supporting many of its expected effects remains limited. In particular, they highlighted the difficulty of generalising results across different forest contexts, uncertainty surrounding the effects of some individual CNF measures, and the shortage of long-term experimental evidence on forest-management outcomes. They also identified context-dependent trade-offs concerning wood production and management costs. These findings closely resemble the Scientific Uncertainty identified as the most prominent weakness in the Swedish media material, where concerns centred on an insufficient or contested scientific basis for assessing the consequences of CNF and on uncertainty regarding its longer-term effects and implementation under Swedish conditions. The later research therefore suggests that the scientific uncertainty expressed during the initial Swedish media reception was not simply a temporary reaction to the report, but reflected broader unresolved questions concerning the evidence base and context-dependent effects of CNF.

Earlier research on continuous cover forestry in Sweden provides an important comparison with these findings. Hertog et al. (2022) found that barriers to the wider uptake of continuous cover forestry extended beyond scientific knowledge and ecological limitations to include forestry culture, education, industrial networks, timber markets and existing institutional structures. They also identified differences between actors promoting continuous cover forestry and established

forestry actors: the former particularly emphasised structural and cultural barriers, whereas established actors placed greater emphasis on ecological risks, economic profitability and limited technical knowledge. This is relevant to the present findings, in which Scientific Uncertainty was the most prominent weakness and Economic Threats the most prominent threat, while Policy Development, Innovation and Collaboration were important opportunities. The media reception identified here therefore reflects several concerns that pre-date the Swedish CNF report, particularly uncertainty over the knowledge base, economic consequences and the institutional conditions under which alternatives to clear-cut forestry could expand.

The findings therefore point to an important distinction between support for the objectives of CNF and confidence in its implementation. Environmental ambitions could be recognised without actors necessarily being convinced about how they should be translated into forest-management practices or how their expected outcomes could be demonstrated. Scientific uncertainty and environmental potential are therefore not contradictory findings. Rather, they represent two interconnected aspects of the reception: the objectives could be regarded as desirable while the pathway towards achieving them remained uncertain.

5.3 Economic and political tensions

The prominence of economic threats, political conflict and polarisation indicates that reservations surrounding CNF extended beyond questions of ecological effectiveness and scientific uncertainty. They also concerned the economic consequences of changing forest-management practices and the governance of such change. These concerns are particularly relevant in Sweden, where forest policy has long sought to balance production and environmental objectives while granting forest owners considerable management autonomy under the principle commonly described as freedom with responsibility (Löfmarck et al., 2017). Previous research demonstrates that these objectives do not always align easily. Swedish forest governance relies substantially on voluntary action by forest owners while simultaneously pursuing high timber production and environmental objectives. Lidestav and Westin (2023) found that production goals were achieved at the aggregate level whereas environmental goals were not, and highlighted the potential need for additional incentives where environmental objectives are insufficiently supported by existing market mechanisms. The economic concerns identified in the present study can therefore be situated within a broader challenge of reconciling environmental ambitions with costs, incentives and consequences for forest production.

The political concerns expressed in the media material centred particularly on how CNF should be translated into Swedish forest policy and on the potential

consequences of stronger policy intervention for existing forestry practices. Some actors presented policy development as an opportunity to promote CNF, while others raised concerns about increased regulation, restrictions on forest owners and tensions between environmental objectives and continued timber production. Political Conflict and Polarisation should therefore not be interpreted as evidence that the introduction of CNF had already produced greater political conflict or polarisation. Rather, these threat categories captured actors' concerns that its implementation could intensify existing disagreements over the direction of Swedish forest policy. This interpretation is consistent with Andersson et al. (2022), who identified competing perspectives on the role of Swedish forests in climate mitigation, including tensions between continued production-oriented forestry and calls for changes in forest-management practices. Johansson (2024) similarly identified persistent conflicts between competing forest-policy interests and difficulties in establishing common ground on priorities and actions. The concerns expressed in the media material can therefore be situated within broader disagreements over how production, environmental objectives and forest governance should be balanced in Sweden.

Recent comparative research on the implementation of the EU Forest Strategy further supports the importance of this policy context. Pecurul-Botines et al. (2025) identify Sweden among countries in which forest policy remains strongly shaped by the economic importance of the forest sector and established national policy priorities. They find partial resistance to EU Forest Strategy objectives concerning ecosystem restoration and CNF and argue that national policy path dependencies influence how EU forest-policy objectives are taken up. The mixed reception identified in the present study can therefore be situated within a broader tension between emerging European forest-policy objectives and established Swedish forest-policy priorities, rather than being understood as a response to the Swedish CNF report in isolation.

A particularly notable finding is the dual way in which future policy development was perceived in relation to CNF. As an opportunity, Policy Development primarily concerned the possibility of using the CNF report to reconsider or develop forest-policy approaches and to encourage changes in forest management. Examples in the material included proposals for state forest owners to increase their use of no-clearcut methods and references to the report as a basis for continued debate and development of forestry practices. At the same time, actors also expressed threats associated with the political and regulatory consequences of such change, including concerns about increased restrictions on private forest owners, regulatory requirements and the possibility that competing positions on forest management could intensify existing disagreements. The contrast is therefore not simply between policy as an implementation tool and policy as a source of conflict. Rather, CNF was presented as an opportunity for

further policy and management development while the direction and consequences of such development were also perceived by some actors as potential sources of political and regulatory tension. This is particularly relevant within a governance system in which the distribution of responsibility between public authorities and forest owners can itself be contested (Löfmarck et al., 2017).

The economic and political concerns identified in the corpus should therefore not simply be interpreted as opposition to the environmental objectives of CNF. Rather, they point towards tensions over the consequences and governance of change. While environmental ambitions could be recognised, translating them into Swedish forestry raises questions concerning production, incentives, responsibility and policy intervention. The reception of CNF was thus embedded in a broader tension between environmental ambition and the economic and institutional conditions under which Swedish forest management takes place.

5.4 Who shaped the mediated reception?

The initial media reception of CNF was characterised by a strongly uneven representation of actors. Political actors were particularly prominent, followed by industry and forestry actors, while scientific and expert voices, environmental organisations and other stakeholders received considerably less representation. This imbalance is relevant because actors who gain media standing have greater opportunities to communicate their interpretations within public debate. Kleinschmit and Sjöstedt (2014) conceptualise this ability to gain media representation as “standing”, whereby actors gain opportunities to shape the discussion according to their preferred meanings and interpretations.

The prominence of political actors may partly reflect both the event that generated the media attention and the composition of the media corpus. The study deliberately captures the period immediately following publication of a government-commissioned report, and public authorities directly connected to the report, particularly the Swedish Forest Agency and the Swedish Environmental Protection Agency, were therefore prominent in explaining its content, definition of CNF and proposed future direction. However, the comparatively limited representation of environmental actors, and the less dominant position of industry and forestry actors, is notable given the contested character of Swedish forest policy. If the publication of the report is understood as a potential moment of policy change, stronger representation of organised interests on different sides of the forest-policy debate might have been expected.

The nature of the analysed media material provides one possible explanation for this pattern. Nine of the 17 items were news articles, compared with six debate articles, one opinion piece and one press release. The corpus therefore combined publications in which stakeholders directly advanced positions with journalistic

reporting in which actors were selected, quoted or represented as part of reporting on the publication of the report. The media reception captured here should consequently not be understood as a direct representation of the full range or relative strength of stakeholder positions surrounding CNF. Rather, it reflects which actors and perspectives became visible within this particular set of media publications during the immediate post-publication period. The dominance of political and public-authority voices may therefore partly reflect the policy-driven character of the event and journalistic attention to the institutions responsible for it, while the relatively limited visibility of environmental actors remains an important characteristic of the initial media reception identified by the study.

Industry and forestry actors formed the second most visible actor group, but their representation of CNF was more mixed than might be expected given established conflicts over Swedish forest policy. Their direct actor–SWOT intersections were almost evenly divided between opportunities (nine) and threats (eight). On the negative side, concerns were primarily economic: industry-associated passages raised issues such as costs for forest owners, restrictions affecting private forestry and possible consequences for forest-sector revenues. However, industry actors also expressed opportunities related to policy development and collaboration, as well as possibilities for innovation, new revenue streams and market development. The material therefore suggests that industry engagement with CNF was not characterised by rejection of the approach itself, but by different assessments of how it might be implemented and what consequences such a transition could have.

This is important in relation to previous research describing conflicts between production and environmental objectives in Swedish forest policy (Andersson et al., 2022). Rather than reproducing a simple opposition between an environmentally supportive side and an economically resistant forest sector, the media material shows that industry and forestry actors could recognise possibilities associated with changes in forest management while simultaneously expressing concerns about their economic and regulatory consequences. This helps explain why the overall reception appeared mixed: disagreement concerned not only whether CNF was desirable, but also the conditions under which changes in forest management could occur and how their consequences would be distributed.

A particularly notable contrast concerns scientific knowledge. Scientific uncertainty was a prominent issue in the reception, yet scientific and expert actors themselves had relatively limited representation. Science was therefore an important subject of the debate without scientific actors being equally prominent participants in it. This does not establish how greater scientific participation would have affected the debate, but it highlights a distinction between discussing

the adequacy of scientific knowledge and providing scientists themselves with substantial media visibility.

The actor configuration found here also differs from patterns identified in other Swedish forest-media debates. Kleinschmit and Sjöstedt (2014) found scientists and politicians to have dominant standing in Swedish newspaper coverage of forests and climate change, whereas industry and forestry actors formed the second most visible group in the present study. Hallberg-Sramek et al. (2020), by contrast, identified government agencies, journalists and environmental organisations as the most prominent actor groups in media coverage of woodland key habitats, while politicians and researchers were considerably less represented. The comparatively strong representation of industry and forestry actors in the present study therefore adds another distinct actor configuration to these previous findings. These differences suggest that there is no fixed hierarchy of actors across Swedish forest-media debates. Rather, media visibility appears to depend on the issue, the institutional context and the events generating attention, but also on the media sources included in the analysis. The present corpus combined national and local media with specialised forest- and policy-oriented publications, which may have influenced which actors received visibility. Comparisons between studies should therefore also take differences in media selection and corpus construction into account.

The “lukewarm welcome” identified in this thesis should therefore be understood as a mediated reception shaped by a particular configuration of actors, rather than as a direct measurement of attitudes across the Swedish forestry sector. Political actors had particularly strong visibility during the initial response to the Swedish CNF report, while several other stakeholder groups occupied substantially less space. The findings consequently describe the perspectives that became visible within this specific media arena and period, not the complete distribution of views surrounding CNF in Sweden.

5.5 The limited scale of the initial media response

The screening process provides an additional perspective on the scale of the initial reception. Although the Retriever search returned 106 records, only 17 independent articles ultimately met the criteria for substantive analysis. The difference between the initial search results and the final corpus demonstrates that the number of database records substantially exceeded the number of independent articles that substantively engaged with the topic during the period studied.

Media attention was also strongly concentrated around the report's publication and subsequently declined during the study period. Taken together with the screening results, this suggests that the report generated a visible but relatively concentrated initial media response, rather than an extensive and sustained media controversy. This provides important context for the actor and thematic patterns

identified in the study, which emerged within a comparatively limited body of substantive media contributions.

This interpretation should nevertheless remain bounded by the study design. The final corpus does not demonstrate that CNF generated little discussion in Sweden generally. Relevant debate may have occurred outside the sources captured by Retriever, through terminology not included in the search strategy, through stakeholder and institutional communication, or after March 2024.

The findings therefore point specifically to a limited and concentrated immediate media reception of the Swedish report, rather than to an absence of wider debate. This distinction reinforces the importance of interpreting the findings as a study of a particular phase and arena of CNF reception rather than as a comprehensive account of Swedish public engagement with CNF.

5.6 Implications for the implementation of CNF in Sweden

The findings suggest that one important challenge for wider implementation of CNF in Sweden concerns creating credible conditions for translating its environmental objectives into practice. The reception examined here points to implementation as not only a silvicultural question but also a question involving knowledge, economic conditions, governance and different stakeholder perspectives.

This is particularly relevant because CNF is intended as an adaptable management approach rather than a single prescriptive silvicultural system. The European guidelines emphasise context-specific management and adaptation to local ecological and socio-economic conditions (European Commission, 2023; Larsen et al., 2022). Wider implementation in Sweden would consequently require translating broad principles into practices considered credible and workable under Swedish ecological, economic and institutional conditions. The scientific uncertainty and knowledge-related limitations identified in the present study suggest that demonstrating the consequences of different CNF practices may be important to this process.

Knowledge alone, however, is unlikely to resolve the implementation challenge. The simultaneous prominence of opportunities related to policy development and of economic and political concerns suggests that the design of policy instruments and incentives may also be important. Previous research on Swedish forest governance has highlighted voluntarism, incentives and forest-owner responsibility within a system characterised by considerable management autonomy (Lidestav & Westin, 2023; Löfmarck et al., 2017). Implementation may therefore depend partly on whether changes in management can be reconciled with economic considerations and established distributions of rights and responsibilities.

Collaboration was also identified as an opportunity in the media reception, appearing in 13 coded segments. These statements presented cooperation between actors as one possible way of supporting the future development of CNF, including cooperation between the forest industry, public authorities, politicians, researchers and other forestry actors. The prominence of Collaboration is particularly relevant alongside the concerns expressed about political conflict and polarisation: while some actors perceived future disagreement as a potential threat, others identified greater cooperation as an opportunity. Previous research on Swedish forest governance has similarly highlighted the difficulties involved in reconciling competing interests through collaborative policy processes (Johansson, 2016; Johansson, 2024). The findings therefore indicate that collaboration formed part of how actors themselves discussed the future development of CNF, rather than demonstrating that collaboration would necessarily resolve the disagreements surrounding its implementation.

Overall, the findings suggest that the future implementation of CNF in Sweden is unlikely to be reducible to a simple choice between accepting or rejecting the approach. A more significant question concerns how CNF can be adapted, demonstrated and governed in ways that reconcile its environmental ambitions with the economic and institutional realities of Swedish forestry. The initial reception examined in this thesis suggests the relevance of knowledge development, appropriate policy instruments and stakeholder collaboration to this process, while also indicating the importance of adapting implementation to the diversity of Swedish forest conditions and interests.

5.7 Future research

The present study focused deliberately on the initial media reception of the Swedish CNF report between December 2023 and March 2024. Future research could extend the analysis beyond this initial period. Exploratory examination of later media coverage indicated that attention to CNF continued beyond March 2024. Comparing this later coverage with the initial reception examined here could reveal whether the actors and perceived strengths, weaknesses, opportunities and threats associated with CNF changed as the debate developed.

Future studies could also complement media analysis through direct engagement with forestry stakeholders. Interviews or surveys involving forest owners, industry representatives, policymakers, researchers and environmental organisations could examine whether the patterns visible in media coverage correspond to views held within the wider forestry sector. This would be particularly relevant given the uneven actor representation identified in the present study and could provide access to perspectives that received comparatively limited visibility in the analysed media material.

Finally, longitudinal research could examine how perceptions of CNF develop as scientific knowledge, policy instruments and practical experience accumulate. Following the debate over time could help determine whether the uncertainties identified during this early stage diminish, persist or are replaced by new concerns as CNF develops from a policy concept towards practical application in Swedish forestry.

6. Conclusion

This thesis examined the initial Swedish media reception of CNF following the publication of the Swedish CNF report in December 2023. Through a qualitative media content analysis of 17 articles published between December 2023 and March 2024, the study investigated which actors participated in the media debate and which strengths, weaknesses, opportunities and threats were associated with CNF and its potential implementation in Sweden.

Regarding the first research question, the analysis identified five actor groups participating in the media debate, although their representation was highly uneven. Political actors were by far the most prominent, with public authorities directly connected to the report, particularly the Swedish Forest Agency and the Swedish Environmental Protection Agency, strongly represented alongside party-political actors. Industry and forestry actors constituted the second most visible group and included forestry companies, forestry professionals, timber buyers and private forest-owner interests. Scientific and expert voices, environmental NGOs and activists, and other stakeholders were considerably less represented. The initial mediated reception of CNF was therefore characterised particularly by the visibility of political and public-authority actors and, to a lesser extent, industry and forestry actors, rather than by an evenly represented range of stakeholders.

Regarding the second research question, the SWOT analysis revealed that actors expressed substantial recognition of the potential of CNF alongside reservations about its implementation. The principal perceived strengths concerned Biodiversity, Sustainable Forestry and Climate & Resilience, indicating that the environmental objectives associated with CNF were clearly recognised in the debate. Scientific Uncertainty constituted the dominant weakness, accompanied by Practical Challenges, Economic Costs and Knowledge Gaps. The most prominent opportunity was Policy Development, followed by Innovation, Collaboration and Financial Incentives. Conversely, Economic Threats constituted the principal perceived threat category, while Political Conflict and Polarisation were also prominent concerns.

Taken together, these findings reveal an important distinction between the perceived objectives of CNF and the conditions for its implementation. The environmental ambitions of CNF were frequently presented positively, but this recognition did not translate into unqualified confidence in how CNF should be implemented in Sweden. Questions concerning scientific evidence, economic consequences, policy design and political disagreement remained important components of the reception. The debate was therefore not characterised by a straightforward division between support and opposition, but by different assessments of the opportunities, risks and conditions associated with changing forest-management practices.

The scale of the media response provides further context for this interpretation. Although the initial Retriever search produced 106 records, systematic screening resulted in only 17 independent articles that substantively addressed the reception examined in this study. The immediate response to the report was therefore visible but relatively concentrated, and the findings should be understood as describing this specific initial phase of mediated reception rather than representing the views of the Swedish forestry sector as a whole.

Overall, the findings support the characterisation of the Swedish media reception of CNF as a lukewarm welcome. The term does not imply rejection or indifference. Instead, it captures a reception in which environmental benefits and opportunities for further development were clearly visible in the analysed material, but enthusiasm was moderated by scientific uncertainty and concerns regarding economic and political implementation. A central issue emerging from the debate was therefore not simply whether CNF could contribute to desirable environmental outcomes, but under what conditions those ambitions could be translated into credible and workable forest-management practices within the economic and institutional context of Swedish forestry.

Use of Generative Artificial Intelligence

Generative artificial intelligence (ChatGPT, OpenAI) was used during the preparation of this thesis as a writing and revision support tool. It was used to assist with language editing, reformulation, organisation of text, and the clear presentation of the author's findings. The selection of empirical material, development and application of the coding framework, coding of the media articles in MAXQDA, and the analytical work were carried out by the author. AI-generated suggestions were reviewed and revised by the author, who takes full responsibility for the content, analysis and conclusions of the thesis.

References

- Andersson, M., Bostedt, G., & Sandström, C. (2022). The role of Swedish forests in climate change mitigation—A frame analysis of conflicting interests. *Forest Policy and Economics*, 144, 102842. <https://doi.org/10.1016/j.forpol.2022.102842>
- Bjärstig, T. (2013). The Swedish forest sector's approach to a formalized forest policy within the EU. *Forest Policy and Economics*, 26, 131–137. <https://doi.org/10.1016/j.forpol.2012.08.005>
- Bryman, A. (2012). *Social research methods* (4th ed.). Oxford University Press.
- European Commission. (2021). New EU forest strategy for 2030 (COM(2021) 572 final). <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52021DC0572>
- European Commission: Directorate-General for Environment. (2023). Guidelines on closer-to-nature forest management. Publications Office of the European Union. <https://data.europa.eu/doi/10.2779/731018>
- Feindt, P. H., & Kleinschmit, D. (2011). The BSE crisis in German newspapers: Reframing responsibility. *Science as Culture*, 20(2), 183–208. <https://doi.org/10.1080/09505431.2011.563569>
- Hallberg-Sramek, I., Bjärstig, T., & Nordin, A. (2020). Framing woodland key habitats in the Swedish media—How has the framing changed over time? *Scandinavian Journal of Forest Research*, 35(3–4), 198–209. <https://doi.org/10.1080/02827581.2020.1761444>
- Helms, M. M., & Nixon, J. (2010). Exploring SWOT analysis—Where are we now? A review of academic research from the last decade. *Journal of Strategy and Management*, 3(3), 215–251. <https://doi.org/10.1108/17554251011064837>
- Hertog, I. M., Brogaard, S., & Krause, T. (2022). Barriers to expanding continuous cover forestry in Sweden for delivering multiple ecosystem services. *Ecosystem Services*, 53, 101392. <https://doi.org/10.1016/j.ecoser.2021.101392>
- Johansson, J. (2016). Participation and deliberation in Swedish forest governance: The process of initiating a National Forest Program. *Forest Policy and Economics*, 70, 137–146. <https://doi.org/10.1016/j.forpol.2016.06.001>
- Johansson, J. (2024). What is at stake and what does it take? Collaborative governance and policy (in)action in the adoption of a National Forest Programme. *Scandinavian Political Studies*, 47, 552–574. <https://doi.org/10.1111/1467-9477.12284>
- Kajanus, M., Leskinen, P., Kurttila, M., & Kangas, J. (2012). Making use of MCDS methods in SWOT analysis—Lessons learnt in strategic natural resources management. *Forest Policy and Economics*, 20, 1–9. <https://doi.org/10.1016/j.forpol.2012.03.005>
- Kleinschmit, D., & Sjöstedt, V. (2014). Between science and politics: Swedish newspaper reporting on forests in a changing climate. *Environmental Science & Policy*, 35, 117–127. <https://doi.org/10.1016/j.envsci.2013.02.011>

- Larsen, J. B., Angelstam, P., Bauhus, J., Carvalho, J. F., Diaci, J., Dobrowolska, D., Gazda, A., Gustafsson, L., Krumm, F., Knoke, T., Konczal, A. A., Kuuluvainen, T., Mason, B., Motta, R., Pötzelsberger, E., Rigling, A., & Schuck, A. (2022). Closer-to-nature forest management (From Science to Policy No. 12). European Forest Institute. <https://doi.org/10.36333/fs12>
- Lidestav, G., & Westin, K. (2023). The impact of Swedish forest owners' values and objectives on management practices and forest policy accomplishment. *Small-scale Forestry*, 22, 435–456. <https://doi.org/10.1007/s11842-022-09538-4>
- Lindlof, T. R., & Taylor, B. C. (2017). *Qualitative communication research methods* (4th ed.). SAGE Publications.
- Löfmarck, E., Uggla, Y., & Lidskog, R. (2017). Freedom with what? Interpretations of “responsibility” in Swedish forestry practice. *Forest Policy and Economics*, 75, 34–40. <https://doi.org/10.1016/j.forpol.2016.12.004>
- Neuendorf, K. A. (2016). *The content analysis guidebook* (2nd ed.). SAGE Publications.
- Pecurul-Botines, M., Giurca, A., Pülzl, H., Niedzialkowski, K., Brockhaus, M., Bouriaud, L., Brukas, V., Hajtmarova, S., Hoogstra-Klein, M. A., Konczal, A., Marcinekova, L., Øistad, K., Pezdevšek Malovrh, S., Pietarinen, N., Secco, L., Roux, J.-L., Wolfslehner, B., & Winkel, G. (2025). Conflicts and policy priorities drive differences in the EU Forest strategy implementation: Insights from 15 European countries. *Forest Policy and Economics*, 181, 103652. <https://doi.org/10.1016/j.forpol.2025.103652>
- Pokorny-Kindlman, R. (2024). Navigating EU-Sweden forestry disputes. *Environmental Challenges*, 15, 100927. <https://doi.org/10.1016/j.envc.2024.100927>
- Skogsstyrelsen. (2021). Hyggesfritt skogsbruk—Skogsstyrelsens definition (Rapport 2021/8). <https://www.skogsstyrelsen.se/globalassets/om-oss/rapporter/rapporter-20222021202020192018/rapport-2021-8-hyggesfritt-skogsbruk---skogsstyrelsens-definition.pdf>
- Skogsstyrelsen, & Naturvårdsverket. (2023). Förutsättningar för hyggesfritt skogsbruk och definition av naturnära skogsbruk i Sverige (Rapport 2023/16). Skogsstyrelsen. <https://www.skogsstyrelsen.se/globalassets/om-oss/rapporter/rapporter-2023/rapport-2023-16-forutsattningar-for-hyggesfritt-skogsbruk-och-definition-av-naturnara-skogsbruk-i-sverige-.pdf>
- Sotirov, M., Winkel, G., & Eckerberg, K. (2021). The coalitional politics of the European Union's environmental forest policy: Biodiversity conservation, timber legality, and climate protection. *Ambio*, 50, 2153–2167. <https://doi.org/10.1007/s13280-021-01644-5>
- Stritih, A., Lecina-Diaz, J., Mohr, J., Schattenberg, C., Ammer, C., Anselmetto, N., Bauhus, J., Bončina, A., Garbarino, M., Hlásny, T., Lindner, M., Lingua, E., Knific, E., Krüger, K., Marangon, D., Morresi, D., Mulec, K., Nagel, T. A., Potterf, M., . . . Seidl, R. (2026). Can “closer-to-nature” forest management sustain biodiversity and ecosystem services in an uncertain future? Lessons from Central

Europe. *Current Forestry Reports*, 12, Article 1. <https://doi.org/10.1007/s40725-025-00264-6>

Appendix 1

Coding Handbook for Media Analysis

The following coding handbook presents the final coding framework used for the media analysis. Coding was conducted in MAXQDA using predefined actor and SWOT categories. Actor codes were applied only when an actor expressed, was attributed, or was clearly represented as holding a substantive position concerning CNF. SWOT codes were applied to the smallest meaningful passage expressing an evaluative claim. Multiple codes could be applied to the same passage where appropriate.

1.1 Document-level information

Code	Variable	Definition / coding rule
DATE	Publication Date	Original publication date of the article, recorded as YYYY-MM-DD.
OUTLET	Publication Outlet	Specific media outlet publishing the article. Outlets were classified as National, Local or Other.
TYPE	Article Type	Publication format, classified as Debate article, Reportage, News, Press Release or Opinion piece.

1.2 Actor categories

Code	Actor category	Definition / coding rule
ACT_POL	Political Actors	Politicians, political parties, government institutions, public authorities or EU-level political bodies presenting a position concerning CNF. Includes ministries, ministers, the Swedish Parliament, the Swedish Forest Agency and the Swedish Environmental Protection Agency when presenting a position.
ACT_IND	Industry & Forestry	Forestry companies, industry organisations, private forest owners, forestry professionals and organisations representing commercial forestry interests.

Code	Actor category	Definition / coding rule
ACT_SCI	Scientific & Expert Voices	Universities, researchers, scientists, research institutes and recognised experts providing scientific or specialist knowledge concerning CNF.
ACT_ENV	Environmental NGOs & Activists	Environmental advocacy organisations, conservation groups, campaigns and activists expressing evaluations, demands or concerns relating to CNF, forestry or biodiversity conservation.
ACT_OTH	Other Stakeholders	Relevant actors not included in the preceding categories, including rural communities, local farmers, reindeer herders, Indigenous Sámi representatives, citizens, local associations, recreation interests and tourism actors.

General actor coding rule. *An actor was coded only when the actor expressed, was attributed, or was clearly represented as holding a position, assessment, recommendation, concern or argument concerning CNF. Actors merely mentioned without a substantive viewpoint were not coded. Where several relevant actors expressed positions within the same passage, all relevant actors could be coded.*

1.3 SWOT analysis

SWOT coding identified positive and negative evaluations of CNF. Strengths and Weaknesses represented characteristics, benefits or limitations presented as inherent or current aspects of CNF, whereas Opportunities and Threats represented future possibilities, external developments or risks. More than one SWOT code could be assigned to a passage when distinct evaluative dimensions were present.

1.3.1 Strengths

Code	Category	Definition	Inclusion / distinction
STR_BIO	Biodiversity	CNF is presented as improving, protecting or restoring biodiversity.	Includes habitat protection, species richness, structural diversity, dead wood and varied tree species or ages.

Code	Category	Definition	Inclusion / distinction
STR_RES	Climate & Resilience	CNF is presented as increasing forest resilience to climate change, extreme weather, pests, diseases or other disturbances.	Includes storm resistance, drought adaptation, reduced vulnerability, ecosystem stability and mixed-species resilience. Carbon sequestration alone is coded as Carbon Storage.
STR_SUS	Sustainable Forestry	CNF is presented as supporting long-term sustainable forest management.	Includes continuous-cover forestry, mixed forests, reduced clear-cutting, long-term ecosystem management and maintaining forest functions over time.
STR_CAR	Carbon Storage	CNF is presented as contributing positively to carbon storage, sequestration or climate mitigation.	Includes forest carbon stocks, reduced carbon release, soil carbon protection and climate mitigation through forest management.
STR_SOC	Social Values	CNF is presented as improving social, recreational, aesthetic, cultural or public values.	Includes recreation, tourism, well-being, attractive landscapes, cultural values and public acceptance.
STR_ECO	Economic Opportunities	CNF is presented as producing positive long-term economic outcomes or advantages.	Includes long-term profitability, reduced future risk, premium timber, diversified income and economic resilience. Future market creation is coded as Market Opportunities.
STR_KNOW	Knowledge & Innovation	CNF is presented as advancing scientific understanding, learning,	Includes research development, demonstration projects, improved methods and innovation already associated with CNF.

Code	Category	Definition	Inclusion / distinction
		experimentation or innovation.	Future innovation possibilities are coded as Innovation.

1.3.2 Weaknesses

Code	Category	Definition and coding rule
WEAK_ECO	Economic Costs	CNF is presented as causing higher costs, reduced short-term profitability or financial disadvantages. Includes transition costs, increased management costs, reduced income and lower short-term returns. Broader future sector risks are coded as Economic Threats.
WEAK_PRA	Practical Challenges	CNF is presented as difficult to implement in practice. Includes machinery limitations, operational complexity, site-specific constraints, planning difficulties, harvesting problems and need for specialised skills.
WEAK_KNOW	Knowledge Gaps	CNF is presented as suffering from insufficient experience, practical knowledge, guidance or competence. Includes insufficient training, limited advisory support and uncertainty concerning practical management methods. Questions about the scientific evidence itself are coded as Scientific Uncertainty.
WEAK_PROD	Productivity	CNF is presented as reducing timber production, growth, yield or harvesting efficiency. Includes lower harvest volumes, reduced growth and lower production per hectare as current limitations. Future sector-wide wood shortages are coded as Timber Supply.

WEAK_ADMIN	Administrative Burden	CNF is presented as increasing bureaucracy, administrative work, compliance demands or management complexity. Includes paperwork, reporting, permits, monitoring obligations and certification requirements. Future uncertainty concerning regulation is coded as Regulatory Uncertainty.
WEAK_SCI	Scientific Uncertainty	CNF is presented as lacking sufficient scientific evidence, consensus or reliable long-term research. Includes insufficient evidence, contested findings, methodological uncertainty, lack of long-term studies and scientific disagreement.

1.3.3 Opportunities

Code	Category	Definition	Inclusion / distinction
OPP_POL	Policy Development	CNF creates or benefits from opportunities for improved governance, policy reform or new regulatory frameworks.	Includes clearer national strategies, policy integration, revised forestry legislation and supportive public planning.
OPP_FIN	Financial Incentives	Financial support could facilitate CNF adoption or compensate affected actors.	Includes subsidies, grants, compensation, tax incentives, public investment, payments for ecosystem services and transition support.
OPP_INNOV	Innovation	CNF could stimulate new forestry practices, technologies, knowledge systems or management solutions.	Includes new machinery, digital forestry, experimental silviculture, monitoring tools and future research-led innovation.

Code	Category	Definition	Inclusion / distinction
OPP_COL	Collaboration	CNF could promote cooperation, dialogue, knowledge exchange or joint action among stakeholders.	Includes industry–NGO dialogue, researcher–practitioner collaboration, participatory governance and cross-sector partnerships.
OPP_MARK	Market Opportunities	CNF could create new products, markets, certification advantages or consumer demand.	Includes green markets, certified products, premium prices, new products and demand for sustainably managed forests.
OPP_INT	International Leadership	CNF offers Sweden an opportunity to lead, influence or serve as a model internationally.	Includes EU leadership, international policy influence, knowledge export and Sweden serving as a model country.

1.3.4 Threats

Code	Category	Definition	Inclusion / distinction
THR_ECO	Economic Threats	CNF is presented as posing broader future financial risks or threats to competitiveness.	Includes sector-wide losses, declining long-term profitability, investment risks and reduced competitiveness. Immediate implementation costs are coded as Economic Costs.
THR_POL	Political Conflict	CNF is presented as generating political disputes, national–EU tensions, ideological conflict or sovereignty concerns.	Includes party-political disputes, perceived EU interference, contested authority and national sovereignty arguments.

Code	Category	Definition	Inclusion / distinction
THR_TIM	Timber Supply	CNF is presented as threatening future wood production, timber availability or industrial raw-material supply.	Includes reduced wood flows, shortages for mills, long-term production decline and industry supply concerns. Current stand-level productivity limitations are coded as Productivity.
THR_RUR	Rural Livelihoods	CNF is presented as threatening employment, income, services, communities or economic stability in rural areas.	Includes rural job losses, reduced forest-owner income and negative effects on forest-dependent communities.
THR_REG	Regulatory Uncertainty	Unclear or changing future rules are presented as a risk for forest owners, industry, authorities or other stakeholders.	Includes uncertain EU legislation, unclear implementation, changing requirements, legal ambiguity and uncertainty over future obligations.
THR_POLAR	Polarisation	CNF is presented as increasing antagonism, mistrust, confrontation or division between actors.	Includes hardened positions, hostile debate, reduced trust and “us versus them” framing. Specific political disputes without broader polarisation are coded as Political Conflict.

Appendix 2

Translation Glossary

The articles included in the analysis were originally published in Swedish and translated into English prior to coding. The following glossary records recurring Swedish forestry and institutional terms for which standardised English translations were used throughout the translated corpus and analysis. The original Swedish articles were consulted where necessary to verify terminology and contextual meaning.

Swedish term	Preferred English translation
<i>naturnära skogsbruk</i>	Closer-to-Nature Forestry
<i>hyggesfritt skogsbruk</i>	Continuous-cover forestry
<i>kalhygge</i>	Clear-cut
<i>trakthyggesbruk</i>	Even-aged forestry
Skogsstyrelsen	Swedish Forest Agency
Naturvårdsverket	Swedish Environmental Protection Agency

Appendix 3

Media Articles Included in the Analysis

The final analytical corpus consisted of the following 17 media items published between December 2023 and March 2024.

Document ID	Date	Outlet	Article title	Article type
DOC_006	2023-12-13	Naturvårdsverket	Staten föreslås öka	Press
		/ Skogsstyrelsen	hyggesfritt skogsbruk	Release
DOC_009	2023-12-14	TT Nyhetsbyrån	Myndigheter vill se	News
			färre kalhyggen	
DOC_014	2023-12-15	Natursidan	Skogsstyrelsen:	News
			Statens skogsbruk bör	
			visa vägen	
DOC_018	2023-12-21	ATL	Nu finns	News
		Lantbrukets	myndighetsmanual till	
		Affärstidning Plus	naturnära skogsbruk	
DOC_022	2023-12-28	ATL	800 000 hektar statlig	News
		Lantbrukets	skog kan bli hyggesfri	
		Affärstidning		
DOC_023	2023-12-28	Mora Tidning	Förslag om ett	News
		Premium	hyggesfritt skogsbruk:	
			”Kan bli ett alibi”	
DOC_024	2023-12-28	Mora Tidning	Sveaskog om	News
		Premium	hyggesfritt skogsbruk:	
			”Vi arbetar seriöst”	
DOC_034	2024-01-11	Altinget	Skogsstyrelsen och	Debate
			Naturvårdsverket måste	
			dra tillbaka den nya	
			skogsrapporten	
DOC_035	2024-01-15	Dagens industri	Dömer ut kalhyggen:	News
			Det är inte lönsamt	
DOC_036	2024-01-15	Altinget	Replik:	Debate
			Skogsrapporten utgår	
			från kunskapsläget	
DOC_037	2024-01-16	Altinget	Som skogsägare är jag	Debate
			bekymrad	
DOC_039	2024-01-19	Land Lantbruk	EU:s naturnära	News
			skogsbruk får en	
			definition	

Document ID	Date	Outlet	Article title	Article type
DOC_042	2024-01-24	Ljusdals-Posten	När fattar kommunen ett framtidsinriktat beslut?	Debate
DOC_048	2024-01-30	Skogsaktuellt	Kontraproduktivt polariserad debatt om skogen	Opinion piece
DOC_052	2024-02-05	Ystads Allehanda	Svante Persson: Ser man inte skogen för alla träd?	Debate
DOC_062	2024-02-21	Altinget	Miljömålsberedningen tar sig an skogsrapport med sprängkraft	News
DOC_071	2024-03-19	ATL Lantbrukets Affärstidning	KD: ”Vem ska ta notan för MP:s gröna kommunism?”	Debate

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