

Forests in the Spotlight: Discourse Coalitions and Storylines Shaping the EU Nature Restoration Regulation

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Abstract

The adoption of the proposal for an EU Nature Restoration Regulation (EU-NRR) in 2022 sparked controversial debates across environmental policy domains. The intensity of debate during the ordinary legislative procedure was evident in the numerous amendments and close voting outcomes within the EU legislative institutions. Although the multi-level and multi-sectoral nature of the EU environmental policy arena provides numerous opportunities and venues for political networks to influence policy processes and their outcomes, the coalition dynamics and discursive power of environmental networks remain under-researched. These dynamics are particularly evident in environmental politics, where a variety of state and non-state actors, shaped by different interests and power structures, attempt to influence political processes based on their interpretations of reality. Drawing on the discourse coalition framework and the coalition magnet concept, this study examines how coalition formation and discursive power influence policy-making processes and their outcomes. Using discourse network analysis (DNA), we analyze the policy debate around the EU-NRR to: (a) identify supporting and opposing discourse coalitions, (b) uncover forest-related storylines, and (c) assess the influence of discourse coalitions and their storylines on the policy-making process and its outcome. In doing so, we place particular emphasis on forest ecosystems, which have historically played a minor role in EU policies. Based on an analysis of 328 public statements and a process tracing of key policy outputs, this study highlights how coalition formation and discursive power dynamics within political networks play a critical role in shaping environmental policy-making. Furthermore, it provides valuable insights into the development of the EU-NRR—the EU’s first directly applicable and legally binding forest-related policy instrument.

Keywords

discourse; discourse coalitions; EU Nature Restoration Regulation; forest restoration; storylines

1. Introduction

The restoration of natural ecosystems has gained global importance. With the adoption of the EU Green Deal in 2019, the European Commission (EC) outlined ambitious goals to make Europe the first carbon-neutral continent by 2050. In this context, the preservation and restoration of ecosystems was established as an important policy priority. Mainly targeting agricultural, forest, and water ecosystems, the EC put forward a legislative proposal for an EU Nature Restoration Regulation (EU-NRR) in June 2022 (EC, 2022b). This proposal aimed to foster the continuous, long-term recovery of biodiversity, achieve overarching climate goals, and meet the EU's international commitments, including those under the Convention on Biological Diversity. In so doing, the EC attempted to move beyond voluntary biodiversity protection commitments that have yielded unsatisfactory results in the past, and to improve the conservation status of different ecosystem types and species protected within and outside the Natura 2000 network of protected areas established under the EU Habitats Directive (Council Directive of 21 May 1992, 1992). Additionally, it aimed to close the continuous regulatory gap for forests at the EU level by establishing legally binding restoration targets for forest ecosystems (EC, 2022a).

Following the adoption of this legislative proposal, it underwent an “unprecedented rollercoaster” (Cliquet et al., 2024, p. 2) in the history of EU environmental policy-making and received both substantial approval as well as significant political opposition (Hering et al., 2023; Tosun, 2023). Although the political negotiations occurred during a period of widespread unrest in agricultural and environmental policy, both at the EU and national levels, culminating in heated farmer protests across the EU in 2023 and 2024 (Finger et al., 2024), and despite strong opposition from influential actors as well as multiple last-minute attempts to derail the legislative process, a qualified majority was ultimately reached in the Council in June 2024. This outcome ran counter to broader political trends, in which EU environmental policy was being dismantled.

We interpret the adoption of the EU-NRR as a significant shift in EU environmental policy, particularly given its provisions for forest ecosystems. Historically, forestry matters in the EU have been governed at the national level. To date, several EU member states (EU-MS) have largely resisted greater EU involvement due to concerns about subsidiarity and the absence of a formal legal competence for forest policy (Edwards & Kleinschmit, 2013; Roux et al., 2025; Winkel & Sotirov, 2016). Over time, an increasing number of forest-related policies have emerged at the EU level from areas of shared competence (Gordeeva et al., 2025; Winkel et al., 2013, as cited in Pülzl et al., 2013). Recent notable examples include the EU Biodiversity Strategy for 2030 (EC, 2020), which calls for the strict protection of primary and old-growth forests within the EU, and the EU Deforestation Regulation (Regulation of the European Parliament and of the Council of 31 May 2023, 2023), aimed at reducing the EU's contribution to global deforestation and forest degradation (Berning & Sotirov, 2023). Collectively, these policy developments are often interpreted as the *de facto* establishment of an EU forest policy (Sotirov et al., 2021), a development that has encountered growing opposition from forestry stakeholders and forest-rich EU-MS (Dahm, 2021; Vanttinen, 2022).

This raises the crucial question of how the adoption of the EU-NRR, a significant shift in EU forest and environmental policy, came about, despite strong opposition and the EU's lack of formal legislative competence in forest policy. To answer this question, this study (a) identifies the supporting and opposing coalitions that formed during the policy-making process, (b) examines the main arguments and storylines promoted by these policy stakeholders and their coalitions, and (c) assesses how coalitions and their storylines influenced the policy-making process and its outcome, particularly concerning forest ecosystems. We employ a policy network lens as an analytical approach, conceiving of policy-making as a bargaining process between state and non-state actors (Brockhaus & Di Gregorio, 2014; Leifeld, 2011), including political parties, interest groups, and NGOs (Schaub & Metz, 2020). We situate this study within the literature on the politics of environmental networks, which has provided intriguing insights into the influence of coalition formation, power dynamics, as well as collaboration and conflict between policy actors on the policy process (Ingold, 2011; Ingold & Leifeld, 2016; Schaub & Braunbeck, 2020; Wagner et al., 2023; Weible & Sabatier, 2005).

EU environmental policy processes offer multiple venues for participation and influence by various state and non-state actors (Mahoney, 2004; Marks et al., 1996). In the case of the EU-NRR, the political pressure and the strong influence of various actors received widespread public and media attention (Karjalainen, 2023; Mayr, 2023; Taylor, 2023). However, there is limited scientific understanding of how actors involved in the debate shaped the policy process and its outcome. One example is provided by Cliquet et al. (2024), who analyze the development of the main policy outputs leading up to the text agreed upon in the trilogue negotiations. Hering et al. (2023) provide additional insights, attributing the highly contested nature of the process to the significant regulatory power of the bill. Further analyses of EU environmental policy processes (Sotirov et al., 2021) and trade-related policies (Berning & Sotirov, 2024; Sotirov et al., 2017) observed similarly intense debates and coalition struggles. However, in the field of EU forest-related environmental policy, empirical studies examining the influence of discourse and coalition formation on policy and practice remain limited, with De Koning et al. (2014) providing a notable contribution. Moreover, while further analyses of forest-related discourse emphasize the need to direct the focus to the politics and the institutionalization of discourse (Winkel et al., 2011), as well as the interplay between local and global factors (Edwards et al., 2022; Leipold, 2014), Leipold et al. (2019) found a lack of quantitative approaches to discourse analysis in the field of forest policy.

Discourse, hereafter defined as ensembles of ideas and concepts that are produced and transformed in a particular set of practices and through which meaning is given to physical and social phenomena (Hajer, 1993), can play a crucial role in political and policy processes (Hajer, 2002; Leifeld, 2017; Leifeld & Haunss, 2012; Schmidt, 2008; Schmidt & Radaelli, 2004). It can constrain and precondition the set of feasible political actions, thereby shaping policy outcomes (Hajer, 1997; Hajer & Versteeg, 2005; Leifeld, 2017; Schmidt & Radaelli, 2004), including processes of both policy stasis and change (Leipold et al., 2019). Moreover, discourse can play a crucial role in shaping political agendas and influencing public opinion, which, in turn, affects political decision-making and policy implementation (Leifeld, 2017).

Numerous studies have explored the influence of discourse and network formation in political processes (Fisher et al., 2013; Ghinoi & Steiner, 2020; Kuenzler et al., 2025; Nagel & Bravo-Laguna, 2022; Schaub, 2021; Schaub & Braunbeck, 2020; Shanahan et al., 2011). These network approaches to discourse and narrative analysis have mainly explored the diversity of policy positions among actors, their relationships,

and how their interactions influence political outcomes (Schaub & Metz, 2020). By integrating discourse and network analysis with process tracing of policy documents and broader political developments, this study aims to advance the limited understanding of how coalition formation, discourse, and the interplay of power and ideas shape policy-making processes and outcomes in the EU environmental policy arena, particularly in the increasingly polarized area of forest and environmental policy.

The policy-making process of the EU-NRR, characterized by intense debates, narrow votes, and significant public and political attention, provides a compelling case for examining the influence of discourse, coalition formation, and the exercise of discursive power in environmental politics. This is mainly due to the pronounced importance of discourse in highly polarized and politicized decision-making contexts (Leifeld & Haunss, 2012). Against this backdrop, the present study goes beyond analyzing discourse and coalition formation to also evaluate their potential impact on policy-making processes and their outcomes. Furthermore, the study contributes to the limited body of literature on EU forest and environmental discourse by incorporating a quantitative approach to analyzing discourse and coalition formation.

We begin by outlining our conceptual framework and theoretical underpinnings. After explaining our research strategy, we present our empirical findings on discourse coalitions, forest-related storylines, and the legislative process of the EU-NRR. We conclude by discussing our empirical findings and offering final remarks.

2. Conceptual Framework and Theoretical Underpinnings

2.1. Discourse Coalitions and Storylines

This study builds on argumentative discourse analysis and Hajer's discourse coalition framework (Hajer, 1993, 2006). Both highlight the critical role of ideas and power in shaping discourse, coalition formation, and policy-making processes. Argumentative discourse analysis aims to reveal the underlying meanings of statements by systematically analyzing their argumentative contributions in policy debates. It pays particular attention to shared and contested positions and justifications (Billig, 1996; Hajer, 2002), providing insights on how different policy actors position themselves within the discursive space. According to Hajer (1997), discursive spaces typically consist of multiple discourse coalitions vying for discursive hegemony. Discourse coalitions are groups of actors united by a shared social construct. To influence policy processes, they employ shared arguments to contest opposing positions, seeking to influence policy-making in line with their interests and ideas.

Hajer interprets politics as a "process in which different actors from various backgrounds form specific coalitions around particular storylines" (Hajer, 2006, p. 71) that give meaning to specific physical or social phenomena. Storylines act as the medium through which actors attempt to impose their view of reality, advocate for specific social positions and practices, and challenge alternative social arrangements (Hajer, 2006). Storylines play a crucial role in environmental political processes. They can simplify the discursive complexity of environmental issues, add a ritualistic character and permanence to policy debates, and enhance actors' understanding and discursive competence (Hajer, 1997). Beyond argumentative persuasion, coalitions also leverage manipulation and power dynamics to shape political and policy processes in line with their ideas and interests (Hajer, 1993).

The success of a discourse coalition in shaping politics according to its interests and ideas can be evaluated using several criteria (Hajer, 1993; Leifeld & Haunss, 2012). First, successful discourse coalitions are adept at integrating a variety of arguments into broad yet consistent storylines. Second, members of successful coalitions exhibit strong ideational alignment, remain united against competing coalitions, and attract broad public support. Third, successful coalitions dominate the discursive space, and this dominance is reflected in institutional practices (Hajer, 1993).

A discourse becomes hegemonic when two conditions are met (Hajer, 1997). First, the discourse reaches saturation. That is, it begins to dominate how meaning is assigned to specific phenomena. Second, it becomes institutionalized, with theoretical concepts and ideas being translated into institutional practices, such as concrete policies and organizational structures. Policy change is primarily driven by the ability of actor coalitions to persuade officeholders who share their views and possess political leverage and decision-making authority to support them (Boin et al., 2009; Sotirov & Winkel, 2016).

2.2. Coalition Magnets

Since Hajer leaves the circumstances under which social constructs form and how they provide ideational cohesion for coalitions largely open (Wallaschek, 2020), this study further draws on the coalition magnet concept (Béland & Cox, 2016). Incorporating the coalition magnet approach into Hajer's discourse coalition framework has proven helpful in addressing criticisms about the ambiguous treatment of agency and the role of ideas in ideational research (Wallaschek, 2020). Moreover, it has offered valuable empirical insights into coalition formation in financial crisis management (Kiess et al., 2017) and international health policy (Khayat-zadeh-Mahani et al., 2019).

The coalition magnet approach acknowledges the critical role of compelling ideas in coalition formation, emphasizing the importance of power in understanding the political effects of ideas. Compelling ideas are typically characterized by high valence and ambiguity. They can attract a broad range of constituencies and actor groups, thereby reinforcing coalition formation. Their vagueness and interpretive flexibility allow various stakeholders to align the ideas with their interests, thereby accommodating heterogeneous preferences and fostering broad social consensus. Accordingly, coalition magnets are defined as ideas that appeal to a variety of actors and groups, and are used strategically by policy entrepreneurs to frame interests, mobilize support, and build coalitions to achieve political goals (Béland & Cox, 2016).

For an idea to function as a coalition magnet, three conditions must be met (Béland & Cox, 2016). First, policy entrepreneurs must strategically deploy the idea as they search for new language to frame policy problems. Second, key decision-makers must adopt and promote the idea, thereby granting it legitimacy. Third, the idea must activate a policy preference among actors who were previously less engaged with the issue. Ideas that lend themselves to multiple interpretations and carry a strong positive and emotional resonance are particularly valuable to policy entrepreneurs seeking to build broad coalitions. Such ideas can help shift power dynamics and tip the balance in favor of their preferred policy outcome (Béland & Cox, 2016).

3. Methods and Material

3.1. Discourse Network Analysis

This study employs DNA (Leifeld, 2017), which conceptualizes political discourse as a network phenomenon, highlighting the interdependence of arguments presented in policy debates. It combines qualitative content analysis of text data with social network analysis, offering new insights into the dynamic development of policy debates (Nagel & Bravo-Laguna, 2022). DNA enables the identification of structures within policy debates, including actor coalitions, brokerage, and polarization, based on shared and contested storylines. We used the Discourse Network Analyzer software (version 3.0) to analyze written and verbal statements made by policy actors involved in the policy debate surrounding the EU-NRR and to transform these statements into network matrices, connecting actors through storylines (Leifeld, 2017).

As there is a diversity of policy actors involved in environmental policy-making (Hajer, 1997; Jordan & Lenschow, 2010), we covered a wide range of organizations. We conducted an in-depth analysis of (a) written statements submitted during a public consultation between June and August 2022, following the adoption of the legislative proposal ($n = 209$), (b) written statements from the main parliamentary groups, along with their contributions during public parliamentary debates between 2022 and 2024 ($n = 71$), and (c) oral statements made by representatives of national ministries during two Environment Council meetings held in March and June 2024 ($n = 48$). Statements written in languages other than English or German were translated into English using the DeepL Translate Pro AI software. We downloaded oral statements from the Council meetings in their official English translations and transcribed them prior to coding.

Despite widespread media coverage and its significance in the policy debate, this study primarily focuses on statements made by policy actors within established policy forums. We do so for two reasons. First, the study focuses on how state and non-state actors strategically construct and articulate policy positions through original statements, particularly those who are directly involved in, affected by, and actively shaping policy-making processes and their outcomes. Second, since we consider policy actors to be key agents who shape, negotiate, and implement policy, concentrating on their statements enables a more direct assessment of coalition formation, the impact of these coalitions on outcomes of policy processes, and their exercise of power.

Throughout the study, we deliberately use the terms “discourse networks” and “policy networks.” This is justified by the fact that we studied the impact of shared and contested storylines (i.e., the discourse network) on the formation of actor coalitions in established policy forums (i.e., the policy network). Furthermore, we situate this study at a macro-analytical level, covering the entire policy-making process of the EU-NRR, including the influence of collaboration and conflict among actors on the outcome of the process, rather than just the policy debate itself. Lastly, insights from existing literature on coalition formation in the EU’s forest and environmental policy domain have identified similar network structures (see e.g., Begemann et al., 2025; Berning & Sotirov, 2024; Sotirov et al., 2021), suggesting the identification of a policy network in the present study that extends beyond verbal interaction.

We applied a DNA coding scheme proposed by Leifeld (2017). Because of their expected greater and more sustained influence on political and policy processes (Eijk, 2018; Sabatier & Weible, 2014), we focused on

organizations as the primary actors. We identified the key forest-related storylines promoted by different organizations and their respective stances to uncover the network structures within the policy debate, shaped by both consensual and conflictual storylines. Consistent with Hajer's discourse coalition framework, the identified storylines comprise shared and contested narratives, problem definitions, ideas, and metaphors related to forest ecosystem restoration.

We employed an iterative inductive-deductive coding approach to identify central storylines in the policy debate. Prior to coding the whole dataset, we used a sample of 10 statements—five expected to support the bill and five expected to oppose it. Based on this sample, an intercoder reliability test was conducted with the second author of this study, revealing a high level of agreement on the coding criteria. The first author subsequently coded the remaining statements. Assigning a timestamp to each statement enabled a more detailed analysis of coalition formation throughout the policy-making process.

Statement codes were exported to the Visone visualization software, enabling both visual and quantitative analyses of network structures (Leifeld, 2017). To identify and analyze the formation of supporting and opposing coalitions, we plotted and analyzed average normalized one-mode actor congruence networks (Leifeld, 2013, 2017). In these networks, nodes (i.e., actors) are connected by edges (i.e., lines) if they share a common position. We applied two different algorithms to perform network cluster analysis. First, we used the non-hierarchical Louvain algorithm (Blondel et al., 2008) to assess the network's modularity. This algorithm facilitates the evaluation of network strengths and the identification of clusters within the network structures by grouping nodes into clusters when connections are stronger internally than externally. Additionally, we employed the Backbone algorithm to identify network structures based on the embeddedness of nodes within networks.

To evaluate the cohesiveness of actor coalitions and identify central actors and storylines, we calculated various network statistics, including network modularity, cluster-specific network densities, and standardized degree centralities. Centrality in policy debates can serve as a proxy for an actor's influence on policy processes. It measures the number of actors with whom an actor shares at least one storyline and takes on a value between 0 and 1. A value of 1 indicates maximum centrality, meaning all other actors replicate an actor's storyline. A value of 0 indicates that an actor's storyline is not replicated by other actors, suggesting a less influential role in the policy debate. Moreover, we continuously adjusted edge weights (i.e., strengths of edges) by applying edge weight filters both to the actor and concept network graphs. This approach allowed for more robust analyses of network structures, including the identification of clusters (Leifeld, 2017).

To assess the storylines advanced by different actors during the policy debate, we plotted and analyzed average normalized one-mode concept congruence networks. Here, storylines are connected by edges when they were addressed together by at least one organization (Leifeld, 2013, 2017). Influential storylines were identified based on their centrality in the network and how frequently they were raised in the debate. We further analyzed two-mode subgraph networks of the 10 most central actors per supporting and opposing coalition, as determined by the standardized degree centrality (Leifeld, 2013, 2017). The two-mode network, which showcases actors' links with storylines, enabled a more focused analysis of the main storylines employed by the most dominant actors during the policy-making process.

3.2. Process Tracing

To assess the influence of coalition formation and storylines, we traced the broader development of the policy-making process and its main policy outputs. Process tracing enables descriptive and causal inferences about the temporal sequences of events (Collier, 2011) and can provide critical insights into how high-valence and ambiguous ideas shape power dynamics and policy outcomes (Béland & Cox, 2016). The included documents were identified from the official legislative procedure file (COD, 2022/0195). They comprised the Commission proposal (EC, 2022b), opinion papers from the responsible Environment, Public Health and Food Safety Committee (COM ENVI) and the associated Committees on Agriculture and Rural Development (COM AGRI) and Fisheries (COM PECH) as well as from the European Economic and Social Committee and the European Committee of the Regions, parliamentary texts adopted in committee and plenary votes (European Parliament [EP], 2023a, 2024), the agreed text from the trilogue negotiations (EP, 2023b), and the final legislative text (Regulation of the European Parliament and of the Council of 24 June 2024, 2024). The results section focuses on the findings from the main policy outputs, beginning with the legislative proposal, continuing through the text adopted by the EP, and following the trilogue negotiations up to the final legal text.

The explanation of outcome process tracing (Wagemann et al., 2020) focused on both the general legal provisions relevant to forest ecosystems and those explicitly targeting them. We examined how these provisions evolved throughout the policy-making process via text amendments and assessed how the storylines advanced by policy actors and their coalitions are reflected in these changes. The focus on forest-related provisions and amendments addressed all ecosystem types covered by the bill, including overarching restoration goals and targets, implementation, reporting and monitoring periods, derogation clauses, and the use of specific language in the legal text, among others. We opted not to focus solely on forest-specific provisions for two reasons. First, a narrow focus on these provisions was expected to limit the scope for assessing the influence of discourse coalitions and their storylines on the policy-making process. Second, many general provisions (such as reporting requirements) are either directly or indirectly related to forest ecosystems.

The DNA findings were then compared with the process tracing results to draw causal inferences about the relationship between discursive power, coalition formation, changes in policy outputs, and the outcome of the policy-making process.

4. Results

4.1. Discourse Coalitions

The voices of a total of 109 organizations are represented in the analyzed policy debate (see Table A2 in the Supplementary File). The organization types and their percentage shares are shown in Figure 1. Among the most represented organizations were governmental bodies, including national environmental ministries represented in the Council, as well as other national ministries and implementing agencies representing various policy areas (e.g., economy, climate, and agriculture), forest and landowners and their associations, and environmental NGOs (ENGOS).

A noteworthy observation is that several individuals and organizations that participated in public consultation simultaneously represented forestry and agricultural interests. While individual forest and landowners were later grouped under forest and landowner associations in the network graphs, we initially coded them separately to demonstrate their significant role in public consultation. Moreover, the partly identical wording in the statements made during the public consultation revealed that many actors initially categorized as “individuals” were, in fact, directly affiliated with organized groups.

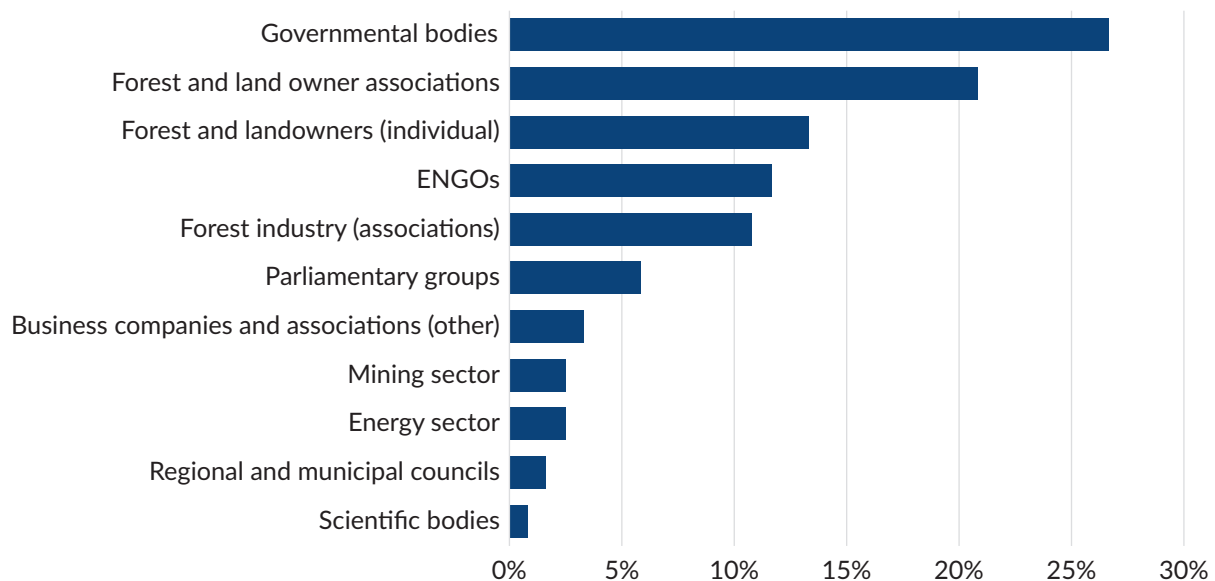


Figure 1. Percentage distribution of organization types participating in the forest-related policy debate.

Figure 2 shows the one-mode actor congruence networks for the periods (a) 2022–2023 and (b) 2022–2024. The cluster analysis and network visualization revealed two overarching discourse coalitions. These two coalitions were consistently confirmed as the edge weights between the nodes were increased progressively (see Figure A5 in the Supplementary File).

The supporting coalition, represented by the cluster on the right-hand side of Figure 2, primarily consists of center-left parliamentary groups (i.e., the Socialists and Democrats [S&D] and the Greens/European Free Alliance [Greens/EFA]), ENGOS and environmental agencies, and the majority of national ministries responsible for environmental policy in the Council. Many of these ministries, particularly those from influential EU-MS, such as Germany and France, joined the supporting coalition by issuing statements in the Council at a later stage of the analyzed policy debate. Members of the supporting coalition largely advocated for ambitious restoration targets and provisions, including for forest ecosystems.

The opposing coalition, represented by the cluster on the left-hand side of Figure 2, consists of center-right parliamentary groups, including the European People’s Party (EPP) and the European Conservatives and Reformists (ECR). It also includes forest and landowner associations, industry representatives from primary sectors such as agriculture, forestry, and mining, as well as a minority of national ministries, particularly from forest-rich and agriculturally oriented EU-MS. These actors frequently criticized the proposal for its perceived unrealistic objectives, its insufficient consideration of landowners’ and industry needs, and the strong influence of the EC in forest policy and management.

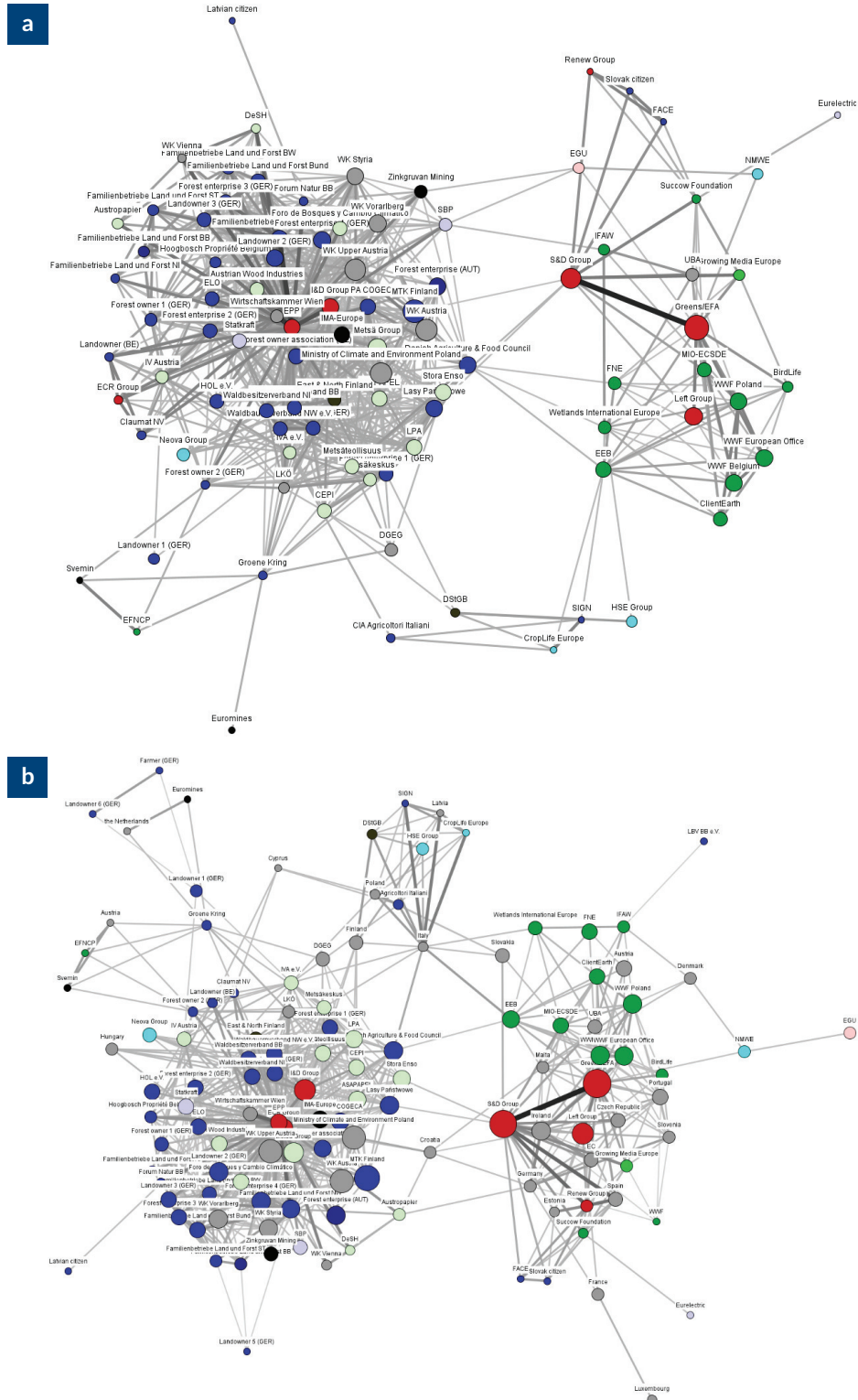


Figure 2. Backbone normalized one-mode actor congruence networks: (a) 2022-2023; (b) 2022-2024. A large node size indicates a high statement frequency during the debate. Thicker and darker lines (edges) between nodes indicate higher edge weights between nodes. Notes: Different node colors represent different organization types: grey = governmental bodies; blue = forest and landowner associations; dark green = NGOs; mint green = forest industry (associations); turquoise = business companies and associations (other); red = parliamentary groups; pink = scientific bodies; black = mining sector; pale violet = energy sector; the full names of all the actors are in Table A1 in the Supplementary File.

The cluster analysis revealed that the opposing coalition not only outnumbered the supporting coalition in terms of member organizations but also exhibited a higher network density, indicating a more substantial level of cohesiveness among its member organizations during the policy debate. At the same time, most of the governmental bodies that participated in the policy debate are part of the supporting coalition (see also Table A2 in the Supplementary File), especially those holding decision-making power in the legislative process. Additionally, the S&D and the Greens/EFA, who were among the most strongly represented parliamentary groups, behind the EPP, during the 2019–2024 constitutive session, played an active role in the analyzed policy debate, as reflected by the high number of statements issued.

4.2. Forest-Specific and Forest-Related Storylines

The statement analysis revealed 14 central storylines (Table 1). Of these, seven were found to exhibit relatively little or no disagreement (consensual), while the remaining seven were characterized by significant disagreement across coalitions (conflictual). Six of the storylines directly addressed forest ecosystems, while the remaining eight were more indirectly related. They addressed issues such as perceived ambiguities in the legislative proposal and concerns about insufficient funding for forest ecosystem restoration.

Table 1 illustrates the centrality of storylines in the debate and the frequency with which policy actors supported or opposed them. Approximately three-quarters of the statements reflected a supportive stance, while the remaining quarter expressed opposition. However, it is important to note that whether a statement was coded as supportive or opposing depended on the specific formulation of each storyline—specifically whether it was framed positively or negatively.

Additional information on the identified storylines, including exemplary statements from members of the supporting and opposing coalitions, can be found in Table A3 of the Supplementary File.

Table 1. Central storylines of the policy debate, including their standardized degree centrality and the absolute and percentage frequency with which policy actors expressed agreement and disagreement throughout the analyzed debate.

Level of disagreement	Storylines	Description	Degree centrality (std)	Agreement		Disagreement		Total	
				Σ	%	Σ	%	Σ	%
Low	State of European forests	European forests and their biodiversity are in a bad state and in need of restoration.	0.08	29	5.5	3	0.6	32	6.1
	Restoration financing	The financing of (forest) restoration measures is largely unclear.	0.20	36	6.8			36	6.8
	Global crises	Strengthening domestic production and the national primary sector is required in the face of multiple global crises.	0.21	18	3.4			18	3.4
	Leakage	Restoration of forest ecosystems will lead to the outsourcing of biomass production, thereby relocating climate and biodiversity impacts to non-EU countries.	0.26	18	3.4	5	1.0	23	4.4
	Legal ambiguity	The definitions (e.g., good condition, favorable reference areas) and the specific wording in the legislative proposal are largely unclear.	0.27	23	4.4	1	0.2	24	4.6
	Bureaucratization	The legislative initiative places a significant administrative burden on forest and landowners, as well as on ministries and implementing agencies.	0.27	23	4.4	1	0.2	24	4.6
	Expropriation	The regulation poses a risk to land ownership and encourages the expropriation of land.	0.28	13	2.5	2	0.4	15	2.9

Table 1. (Cont.) Central storylines of the policy debate, including their standardized degree centrality and the absolute and percentage frequency with which policy actors expressed agreement and disagreement throughout the analyzed debate.

Level of disagreement	Storylines	Description	Degree centrality (std)	Agreement		Disagreement		Total	
				Σ	%	Σ	%	Σ	%
High	Restoration site	Restoration measures (including in forest ecosystems) should be implemented in existing Natura 2000 sites.	0.24	9	1.7	3	0.6	12	2.3
	Forest restoration cost-benefit	The costs of forest restoration outweigh the benefits. Opportunity costs and losses are not accounted for in cost-benefit assessments.	0.27	21	4.0	8	1.5	29	5.5
	Subsidiarity	Setting legally binding forest ecosystem restoration indicators directly goes beyond the EU's competence.	0.31	36	6.8	21	4.0	57	10.8
	Feasibility	The regulation sets unrealistic and unachievable restoration goals. The restoration baselines are based on insufficient evidence.	0.35	32	6.1	24	4.6	56	10.6
	Local participation and inclusion	The legislative proposal and policy-making process do not sufficiently include local expertise and necessities (top-down approach).	0.35	41	7.8	21	4.0	62	11.8
	Forest disturbances	Forest restoration will increase the risk of climate disturbances, undermining climate adaptation and biodiversity restoration goals.	0.38	26	4.9	23	4.4	49	9.3
	Production restriction	Forest restoration will impose production restrictions and encourage the setting aside of forests, which will threaten forestry and rural economies.	0.41	68	12.9	21	4.0	89	16.9
Sum				393	74.7	133	25.3	526	100

The most central storylines were identified through standardized degree centrality. These storylines were primarily advanced by members of the opposing coalition and included mainly conflictual storylines, such as the production restriction, forest disturbance, local participation and inclusion, and feasibility storylines. Figure 3 shows the average normalized one-mode concept congruence network. Edge weights of 0.25 or less were filtered out to determine the underlying network structure. Notably, more conflictual storylines (black nodes) are voiced more frequently and in combination, particularly by the opposing coalition. This dominance is further reflected in the higher network density of conflictual storylines (0.81), compared to consensual storylines (green nodes, 0.38). Consensual storylines appear to have played a less central role in the analyzed debate, which highlights the high degree of polarization.

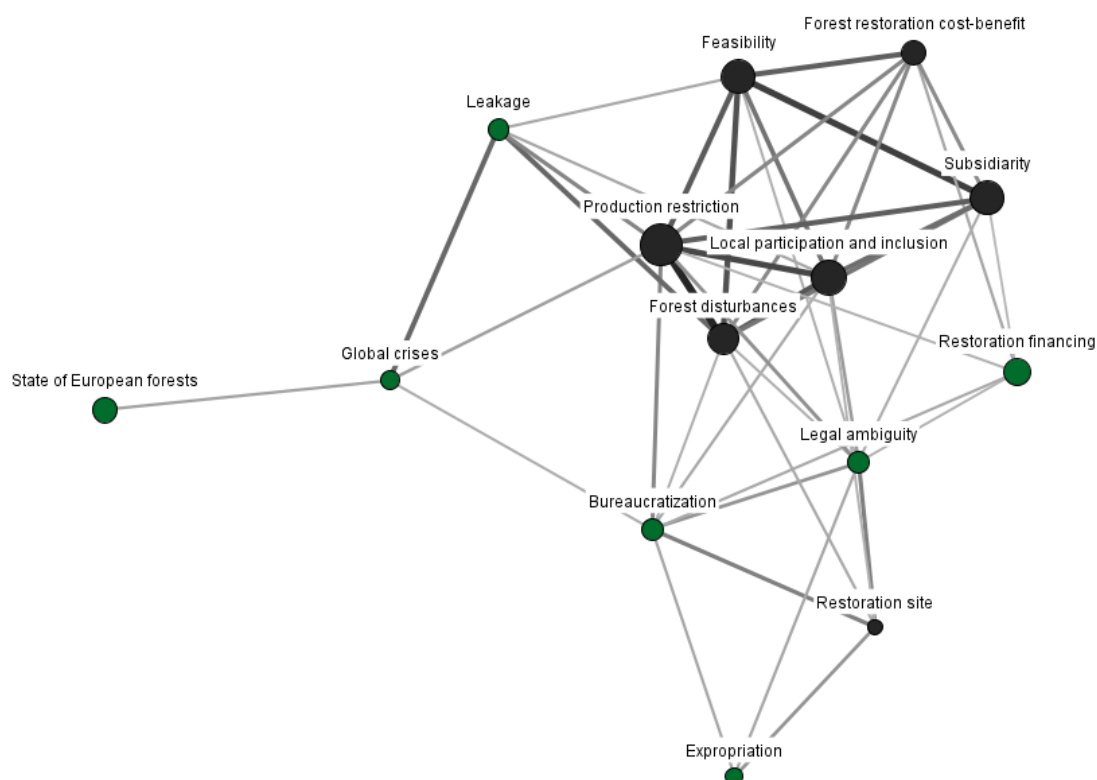


Figure 3. Average normalized one-mode concept congruence network (filtered edge weights ≤ 0.25). The larger the node size, the more frequently the storyline was referenced during the policy debate. Thicker and darker edges indicate higher edge weights, meaning that organizations mentioned the respective storylines together or in the same context. Notes: Green nodes = more consensual storylines; black nodes = more conflictual storylines.

Figure 4 shows the two-mode subtract network. It provides further insights into the storylines promoted by the 10 most central actors from the supporting and opposing coalitions, respectively. While certain storylines, such as those concerning restoration finance and legal ambiguity, elicited broad consensus across coalitions, other issues proved highly polarizing. In particular, there were strongly opposing views on whether forest restoration provisions impose production restrictions and whether they help mitigate or instead exacerbate forest disturbances.

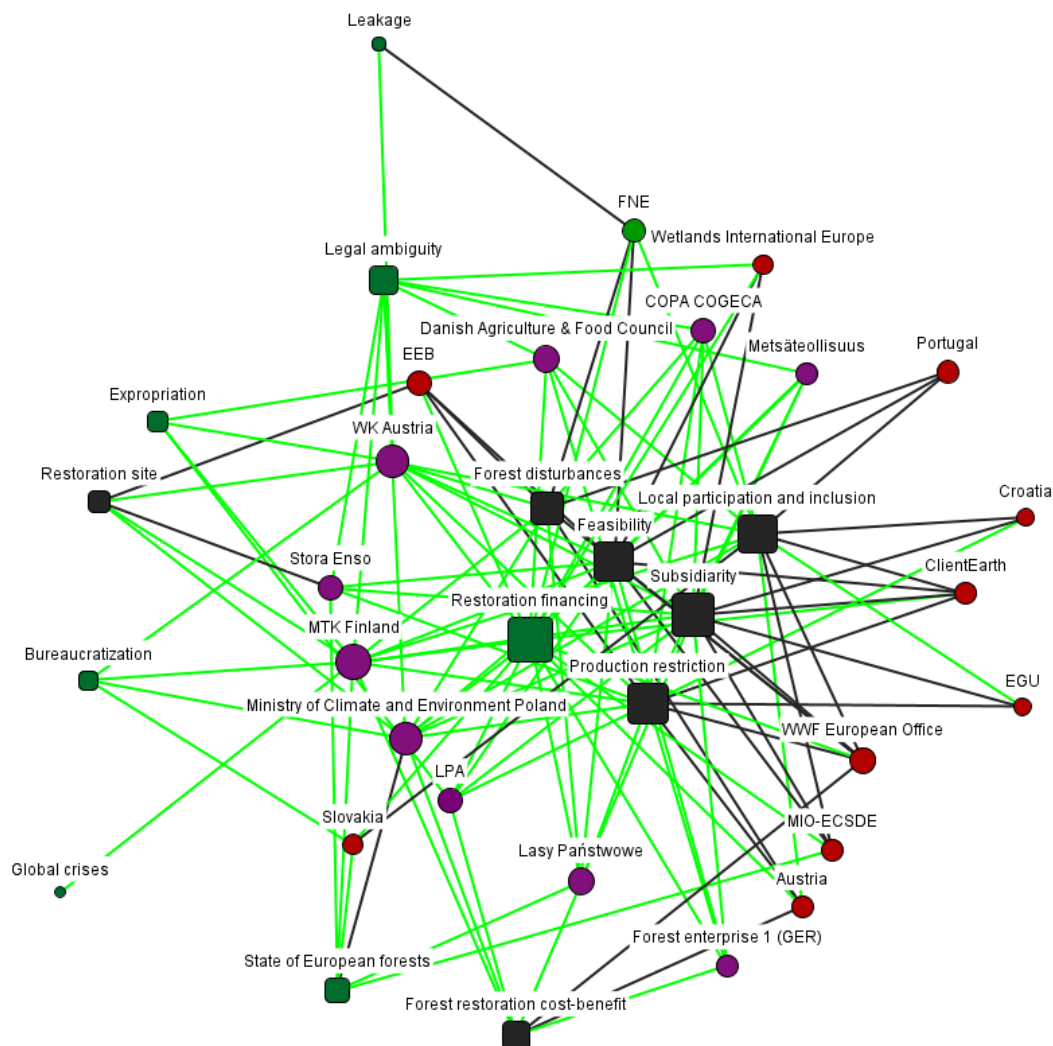


Figure 4. Two-mode subtract network. Notes: Purple nodes = the 10 most central organizations from the opposing coalition; red nodes = the 10 most central organizations from the supporting coalition; black squared nodes = more conflictual storylines; green squared nodes = more consensual storylines; green edges = agreement; black edges = disagreement; the full names of all the actors are in Table A1 in the Supplementary File.

In what follows, we will present qualitative insights into the four most conflictual forest-specific storylines, which were the ones most frequently addressed in the statements and that exhibited high degree centralities (see Table 1 and Figure 3).

4.2.1. Production Restriction Storyline

A dominant narrative in the policy debate centered on the perceived impact of restrictions of forestry production, particularly concerns over increasing management limitations and forest set-asides supposedly mandated by the EU-NRR. This debate was often linked to the role of forests in mitigating climate change, specifically the question of whether climate goals can be better achieved through forest conservation or wood-based carbon storage. The opposing coalition advanced the narrative that the bill would threaten forestry and rural economies, a concern prominently expressed by EPP Chairman Manfred Weber.

He repeatedly argued that “the main instrument the law proposes is to reduce productive land, including forest land...an idea that already exists in the Common Agricultural Policy, called set-aside” (Weber, 2023).

This storyline was widely echoed by forest owners and industry associations, who criticized the bill for emphasizing the carbon storage potential of standing forests while overlooking the carbon storage capacity in wood products. The debate over whether forest ecosystem restoration would result in production restrictions was frequently linked to the restoration site storyline. Due to concerns over additional management restrictions outside protected areas, the opposing coalition strongly advocated for focusing restoration efforts within designated Natura 2000 sites. In contrast, the supporting coalition welcomed the extension of forest ecosystem provisions beyond the habitat types covered by the EU Habitats Directive. These divergent views shaped policy amendments. While the original proposal included areas beyond Natura 2000, EP limited the scope of the text in response to concerns raised by the opposing coalition. However, the final text again extended coverage beyond the network.

4.2.2. Forest Disturbance Storyline

The debate on forest ecosystem restoration was characterized by strongly opposing views on the relationship between forest restoration and natural disturbances. Opponents of the bill repeatedly painted a bleak picture of the future of forest ecosystems should the bill be adopted:

Forests are currently burning across Europe. Huge areas are releasing enormous amounts of carbon dioxide and remaining wastelands [sic]. The EU-NRR runs the risk of making it more difficult for forests to adapt to climate change by further restricting use and increasing the proportion of deadwood, and creating structures that further promote forest fires. (German agriculture and forestry enterprise, 2022, translated from German)

Supporters of the bill, on the other hand, emphasized that “improved nature also helps rural areas...cope with extreme weather events, safeguarding against wind, droughts, and floods” (S&D, 2023). Concerns raised by the opposing coalition regarding deadwood indicators led to their temporary removal from the forest ecosystems article in the parliamentary text, following amendments proposed by the EPP.

4.2.3. Subsidiarity Storyline

Diverging views on the EU's competence for forest policy have sparked contentious debates across coalitions. For instance, the Central Union of Agricultural Producers and Forest Owners in Finland (MTK Finland) pointed to a growing trend of expanding the EC's authority relative to other EU institutions and EU-MS. Moreover, several organizations criticized the provision in Chapter V of the legislative proposal, which grants the EC the power to adopt delegated acts, particularly the authority to amend the annexes, including those related to forest ecosystem indicators.

The direct establishment of forest ecosystem indicators faced widespread criticism from various groups, including a Czech forest owner association, which called for the removal of all forest ecosystem indicators, and MTK Finland, which urged the EC to fully respect EU-MS' national competence for forest policy, pointing out the limited applicability of a fixed set of forest ecosystem restoration indicators across

European bioregions. On the other hand, some supporters of the bill even raised concerns that too much freedom given to EU-MS in national implementation could lead to ineffective action at the national level. They argued in favor of establishing forest ecosystem restoration indicators at the EU level to ensure consistency and avoid disparities across EU-MS.

Despite disagreements among policy actors regarding the EC's competence in forestry matters, which led to the temporary removal of the article on forest ecosystems during negotiations, the provision remained in the final legal text, albeit in a weakened form.

4.2.4. Forest Restoration Cost-Benefit Storyline

The economic impacts of forest restoration and restoration measures more broadly were another controversial point in the policy debate. This topic was closely linked to the broader discussion on restoration financing, where both the opposing and supporting coalition raised concerns about funding bottlenecks for forest restoration. While the EC highlighted the potentially high returns on restoration investment in its impact assessment (EC, 2022a), opponents contested these estimates. They criticized the reliance on EU-wide average values and the failure to account for the opportunity costs of restoration.

These concerns were particularly prominent among forest owners and industry associations from forest-rich and agriculturally oriented EU-MS. For example, the silviculture association of North Rhine-Westphalia in Germany argued that the cost-benefit calculations for forest ecosystems failed to account for the role of forest owners and managers, as well as the broader range of ecosystem services provided by forests. Similarly, MTK Finland emphasized the notably higher costs of ecosystem restoration in Finland, primarily due to the large proportion of potentially restorable former peatlands and the associated loss of forestry production potential. These concerns were frequently echoed by national ministries, including Finland's environment minister, Kai Mykkänen, who justified Finland's rejection of the bill by pointing to the country's exorbitant restoration costs.

4.3. Key Developments of the Legislative Process

4.3.1. Commission Proposal

To meet nature restoration and climate mitigation goals, Article 4 of the EC's EU-NRR proposal requires EU-MS to restore at least 30% of listed habitat types by 2030, 60% by 2040, and 90% by 2050. These targets complement existing EU environmental policies, such as the Habitats and Birds Directives (Council Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009, 2009), by introducing clear restoration goals and deadlines both within and beyond Natura 2000 sites. The proposal promotes a landscape-scale restoration approach across diverse ecosystems, including marine, agricultural, and forest ecosystems, and obliges EU-MS to develop national restoration plans that quantify restoration areas. In addition, it mandates the monitoring of restoration indicators and requires annual electronic reporting from the date of the regulation's entry into force, followed by updates every three years.

The preamble emphasizes the crucial role of forest ecosystems in protecting biodiversity, mitigating and adapting to climate change, and providing wood and non-wood ecosystem services. Article 10 of the

proposal is the key provision addressing forest ecosystems. It requires EU-MS to implement restoration measures aimed at improving forest conditions by ensuring increasing national trends across seven forest ecosystem restoration indicators. These include (a) standing deadwood, (b) lying deadwood, (c) the share of forests with uneven-aged structure, (d) forest connectivity, (e) the common forest bird index, and (f) the stock of organic carbon.

4.3.2. Parliamentary Amendments and Plenary Vote

Votes in the Council and, of particular noteworthiness, in the EP in June and July 2023 resulted in numerous changes to the legal text, weakening the thrust of the bill (Cliquet et al., 2024). Many of these changes directly impact the provisions on forest ecosystems and reflect storylines advanced by the opposing coalition (e.g., the forest disturbance and restoration site storylines). Although rejection requests from COM AGRI and COM PECH were turned down in the COM ENVI and plenary votes, forest ecosystem and peatland restoration targets were temporarily removed from the legal text as part of approximately 2,500 text amendments. This was mainly due to subsidiarity concerns regarding the EU's authority over forestry, as, for example, raised by the European Economic and Social Committee, which also called for greater consideration of increasing natural disturbances in Europe and a better balance between the preservation and exploitation of forest resources.

While forest ecosystems were reintroduced following the EP's plenary vote, forest-specific provisions underwent far-reaching amendments. At the request of the EPP, forest-specific references were removed, and Renew Europe proposed that forest restoration obligations be met using a reduced set of mandatory indicators—namely, (a) standing deadwood, (b) lying deadwood, and (c) the common forest bird index. Additionally, a list of optional indicators was suggested, which includes (d) the share of forests with uneven-aged structure, (e) forest connectivity, (f) the share of forests dominated by native tree species, (g) tree species diversity, and (h) the stock of organic carbon. Subsequent amendments proposed by the EPP led to the removal of both standing and lying deadwood indicators from the bill, primarily because of forest disturbance concerns raised by the opposing coalition. Further modifications in response to concerns related to climate change impacts included the addition of a third paragraph to Article 10, outlining exemptions to forest restoration obligations in cases of large-scale disruptions, such as natural disturbances, and climate change-related habitat transformations.

The narrow votes and the substantial weakening of the legal text following the parliamentary votes triggered widespread concern and mobilization among the general public, scientists, major corporations, and business associations. Backed by ENGOs, the “RestoreNature” campaign mobilized over one million messages and signatures from the broader public, urging EU decision-makers to ensure the final adoption of the bill (ClientEarth, 2023; “European Parliament seals the deal,” 2024). Additionally, approximately 6,000 scientists expressed concerns about the ongoing discussions surrounding the EU Green Deal and, in particular, the EU-NRR as a flagship policy (Pe'er et al., 2023). They highlighted the lack of evidence supporting specific claims and refuted the arguments put forward by the bill's opponents. Throughout the legislative process, the supporting coalition gained additional support from major corporations and business associations, including Nestlé, Coca-Cola, and IKEA, all of whom demonstrated exceptional engagement with the issue. In joint letters, issued in June 2023 and May 2024 (Our Nature, Our Business, 2024), they urged all MEPs and the EU-MS to adopt the bill.

The EP adopted additional, more general amendments that weakened the proposal further. These amendments reflected several storylines advanced by the opposing coalition, including those concerning global crises, feasibility, production restrictions, and cost-benefit considerations for restoration, and largely aimed to secure greater flexibility to protect economic interests (Cliquet et al., 2024). They include (a) the weakening of key restoration provisions—for example, changing “shall put in place” to “shall aim to put in place” in Article 4 §1—(b) limiting the scope of restoration to Natura 2000 sites currently in poor condition, (c) weakening the non-deterioration clause for restored areas, and (d) the removal of restoration provisions for agricultural ecosystems and peatlands from the text.

In addition to weakening the regulatory provisions for forest ecosystems, Amendment 80, proposed by shadow rapporteur César Luena on behalf of the S&D, incorporated the EU Biodiversity Strategy’s commitment to planting three billion trees by 2030 into the legal text, thus giving the commitment legal status.

While Mick Wallace, the shadow rapporteur for the Left Group, welcomed the survival of the bill following the parliamentary vote, he lamented that the text passed by EP had been “absolutely gutted,” remaining only “a shell of the Commission’s proposal” (Wallace, 2023, as cited in Giese, 2023).

4.3.3. Trilogue Agreement

The trilogue agreement reached in November 2023 reversed several amendments made by EP (Cliquet et al., 2024). Provisions on agricultural ecosystems and forest-specific recitals were reintroduced into the text, and the scope of terrestrial restoration was again expanded beyond Natura 2000 sites, as advocated by the supporting coalition. As to forest ecosystems, standing and lying deadwood were reintroduced to the text. In response to widespread concerns from the opposing coalition about the interaction between forest disturbances and restoration, additional clauses were added to Article 10, requiring EU-MS to carefully assess forest fire risks before implementing forest restoration measures.

Although the trilogue agreement aligns more closely with the legislative proposal, it comprises various concessions to the opposing coalition, particularly the farming sector, as reflected in the key provisions of the final legislative text. These include (a) the addition of food security enhancement as a standalone legal objective, (b) an exemption for the re-programming of the Common Agricultural Policy and Common Fisheries Policy or other related funding programs under the 2021–2027 Multiannual Financial Framework for restoration measures, and (c) the introduction of a new article on temporal suspensions—the so-called “emergency brake.” This last provision grants the EC the authority to temporarily suspend the agricultural ecosystem provisions in the event of an emergency that significantly affects land availability or food security.

While MEP Christine Schneider, the EPP’s shadow rapporteur, highlighted notable improvements to the initial proposal that better addressed agricultural concerns, César Luena (S&D) emphasized the preservation of the bill’s original objectives and the strengthening of provisions for forest ecosystems.

4.3.4. Final Adoption

Despite the EPP’s last-minute decision to withdraw its support for the negotiated text, the EP gave its final approval in February 2024. However, the Council’s failure to reach a qualified majority at its March 2024

meeting sparked significant concern among EU-MS representatives. Several national ministers pleaded for the bill's final adoption, warning that failure to do so would raise fundamental questions about the credibility of the EU's political system and the integrity of the ordinary legislative procedure. As then Minister of the Environment Eamon Ryan (Ireland) famously stated:

And if we're to say here as a Council, we've changed our mind, we entered into negotiations, we agreed with the Parliament, the Commission, but now we think differently, how would any future trial of negotiations have any real confidence? How could any parliamentarian say, I'll compromise here, I'll take a risk, I'll expose myself because I'll get a deal, and then we'll have a deal done? If we don't agree to what we've already negotiated, we undermine the entire European legislative process. (Ryan, 2024)

Several EU-MS representatives also questioned whether the EU could fulfil its intended pioneering role in international environmental policy if the Council failed to adopt the negotiated law:

During the Czech presidency, we negotiated in biodiversity COP conference a very good deal, something that the European Union may take forward [sic]. What are we going to do now? What are we going to do in autumn in this conference if we have no law on nature restoration? What are we going to say? What happens to our trustworthiness if we're talking about 2040 goals, about our future, about climate goals, about water protection? We are no longer trustworthy, we are only talking. (Hladík, 2024)

Efforts to persuade opposing EU-MS to reconsider their rejection gained momentum with a joint letter from environment ministers in May 2024 (Ministers for the Environment, Climate and Communications, 2024). Eamon Ryan, who emerged as a key policy entrepreneur of the bill, led the letter that was signed by ministers from 11 EU-MS, including influential countries like France, Spain, and Germany. It urged all EU-MS to finalize the process and adopt the bill at the Council meeting in June 2024. These efforts proved successful, with both Slovakia and Austria shifting their positions. Notably, Austria's former Environment Minister Leonore Gewessler voted against her government's official stance, which ultimately helped secure a qualified majority.

The final legal text, adopted by the Council on June 17, 2024, closely aligns with the outcome of the trilogue agreement. Despite their temporary removal during the legislative process, forest ecosystems remain a key focus under Article 12. While the common forest bird index remains the only mandatory forest ecosystem indicator, seven additional indicators are listed under Paragraph 3. EU-MS must demonstrate a nationally increasing trend for at least six of these indicators, measured from the regulation's entry into force through the end of 2030, and every six years thereafter.

5. Discussion

We can compare and analyze our findings through two key strands of policy and forest science studies. The first focuses on how discourse, coalition formation, and the exercise of discursive power can influence policy-making processes and their outcomes, including processes of policy change. Second, we discuss our findings in the context of existing literature on EU forest and environmental policy-making processes. Although the importance of discourse in policy-making is increasingly recognized in political science,

research explicitly addressing the forest policy subsystem at the EU level remains limited. This is surprising given the high polarization of forest environmental discourse at the EU level (De Koning et al., 2014) and the particularly critical role of discourse in highly polarized and politicized decision-making processes (Leifeld & Haunss, 2012).

While policy-making processes are often shaped by competing discourse coalitions argumentatively vying for control over outcomes (Hajer, 1997), dominant coalitions are expected to have the most significant influence on the outcome of the policy-making process (Schaub & Metz, 2020). Successful discourse coalitions are characterized by showing strong ideational congruence, unity against opposing coalitions, and broad support (Hajer, 1993). In this context, the literature on policy networks suggests that the structure of networks can significantly impact the policy-making process and its outcome. Policy change is less likely to occur when a unitary coalition structure dominated by a single, homogeneous coalition persists. Conversely, when discursive hegemony is challenged by the emergence of a competing coalition, resulting in a polarized network, and the challenger succeeds in discursively dominating the policy process, policy change becomes more likely. Such change is more likely to endure if the newly formed coalition successfully establishes discursive hegemony (Ingold & Gschwend, 2014; Schaub & Braunbeck, 2020).

Our empirical observations only partially corroborate the theoretical considerations outlined above. While our analysis reveals a strongly polarized policy network as a precursor to policy change, evaluating the success of discourse coalitions in influencing the policy-making process requires a more detailed assessment. Notably, the opposing coalition significantly influenced the process and its outcome (Cliquet et al., 2024). Their rejection and skepticism towards forest restoration provisions were packed into a broad set of storylines that dominated the analyzed debate. These storylines skillfully simplified the complexity of the restoration idea, giving the debate a ritualistic character. For example, the bureaucratization and expropriation storylines were frequently echoed by numerous non-state actors during the public consultation, and they continue to dominate ongoing forest and environmental policy debates. The dominance of the opposing coalition is further reflected by the greater number of aligned actors whose interests and ideas strongly influenced the analyzed policy debate and are evident in the numerous text amendments throughout the negotiation process. Nevertheless, the opposing coalitions' attempts to undermine or obstruct the legislative process ultimately failed, not least because of the lack of political leverage and decision-making authority, allowing the supporting coalition to prevail in the policy-making process.

Following a tumultuous policy-making process, the restoration discourse gained dominance in the EU environmental policy domain and was ultimately institutionalized with the adoption of the EU-NRR. This outcome was largely driven by the strong advocacy of major parliamentary groups, particularly the Greens/EFA and the S&D, as well as various influential EU-MS represented in the Council. Throughout the policy-making process, they skillfully harnessed the emotional appeal and ambiguity of the restoration idea to attract and mobilize a broad constituency from inside and outside the analyzed policy network, including from the scientific community, the private sector, and the general public. The ambiguity of forest restoration (Stanturf et al., 2014) appears to have prompted starkly contrasting viewpoints among discourse coalitions, such as regarding the relationship between forest restoration and climate disturbances, and have further contributed to implementation conflicts on the ground (O'Brien et al., 2025). However, this very ambiguity seems to have offered enough interpretive flexibility and strong ideational cohesion to bring together a

range of actors and align their diverse interests around the forest restoration idea. This expanded engagement reshaped power dynamics within the policy network, ultimately tipping the balance in favor of the supporting coalition's preferred outcome (Béland & Cox, 2016).

We argue that the remarkable mobilization and the outcome of the policy-making process were primarily facilitated by the forest restoration idea's role as a strong coalition magnet (Béland & Cox, 2016). While the forest ecosystem restoration movement originated primarily at the international level (Shelton et al., 2024), it has recently gained significant momentum within the EU. In the context of European forests, however, the necessity to diversify forest structures and improve and conserve key biodiversity indicators, such as deadwood and forest bird populations, has long been recognized. Influential state (for instance parliamentary groups) and non-state actors (such as ENGOs) strategically adopted and advanced the internationally established restoration idea to address long-standing policy challenges, particularly climate change and biodiversity loss, as well as the vital role of forest ecosystems in this context. Over time, key decision-makers, including various MEPs and national ministers in the Council, emerged as strong promoters of the bill. They consistently emphasized the urgency of restoring natural ecosystems to combat biodiversity loss and support climate change mitigation, thereby granting the restoration idea substantial legitimacy. Moreover, they skillfully elevated the debate by challenging the credibility of both the ordinary legislative procedure and EU institutions, while also calling into question the EU's self-proclaimed role as global environmental leader if the bill were to fail.

Despite the influential role of the opposing coalition, which successfully incorporated far-reaching text amendments that led to a general weakening of the legislative proposal (Cliquet et al., 2024), the adoption of the EU-NRR marks a substantial change in EU environmental policy, particularly in the realm of forest policy. The institutional framework for forest policy at the EU level has historically been shaped through forest-related policy areas. They include the field of environmental policy, in particular through the EU Birds and Habitats Directives, which remain rather vague in terms of specific forest management obligations (De Koning et al., 2014; Sotirov et al., 2021), and agricultural policy, as a financing instrument for forestry measures at the EU level (Fleckenstein, 2024). By formulating directly applicable and legally binding indicators and targets for forest ecosystem restoration in the EU-NRR, the EC is, for the first time, exerting direct influence over forest policy and management in the EU-MS. As a regulation, the EU-NRR does not require legal transposition into national legislation, allowing for direct applicability across EU-MS. This aligns with observations that the EC is effectively creating a *de facto* forest policy through related areas of shared competence, particularly environmental policy (Gordeeva et al., 2025; Sotirov et al., 2021).

Insights from the policy-making process and its outcome become even more striking when compared to earlier policy-making processes in the EU forest environmental policy domain. In their analysis of the coalitional politics of the EU Habitats Directive, Sotirov et al. (2021) found that its final adoption in 1992 was possible, among other reasons, by the poorly organized forest sector interest groups at the EU level at that time. Notably, several forest-rich EU-MS, including Finland and Sweden, which typically oppose EU legislative initiatives related to forests (Begemann et al., 2025; Sotirov et al., 2017; Winkel & Sotirov, 2016), were absent during the adoption, only having joined the EU in 1995. Moreover, at that time, the EP, whose internal vote significantly weakened the draft EU-NRR legislation (Cliquet et al., 2024), only held an advisory role in the policy-making process, as it was not granted legislative power until the introduction of the co-decision procedure in the Maastricht Treaty in 1993 (Sotirov et al., 2021).

Although political discourse and the associated storylines played a key role in shaping the EU-NRR, we argue that they should not be considered the sole factors influencing policy-making and policy change processes (Schmidt & Radaelli, 2004). Instead, the political leverage and decision-making power within actor coalitions, the broader political context of the discourse, and the emotional appeal and ambiguity of the debated topic all played a crucial role in shaping coalition formation and the outcome of the legislative process examined in this study. Therefore, a narrow consideration of network metrics (e.g., network density and the number of affiliated actors) seems insufficient when assessing the influence of actor coalitions on policy-making processes. This is because these metrics are strongly influenced by pre-determined network boundaries and may be offset by the political influence and decision-making power embedded in actor coalitions. However, given the difficulty of comprehensively analyzing the statements and arguments of the wide range of actors typically involved in environmental politics, studies of environmental networks and their influence on policy processes should take careful account of factors beyond the boundaries of the networks under analysis. In the present study, these factors appeared to have paved the way for the successful adoption of the EU-NRR amid political turbulence and mounting opposition to EU environmental policy.

6. Conclusion

This study examines the EU-NRR negotiation process to assess the influence of discursive power, as manifested through coalition formation and the advancement of storylines, on EU environmental policy-making. By combining DNA and a process-tracing of key policy outputs and broader political developments, we identified a dominant opposing coalition whose interests and ideas are strongly reflected at different stages of the process. At the same time, we observed significant mobilization among various actor groups outside the analyzed policy network. These actors were mobilized by influential figures from EU legislative institutions, who emerged as key policy entrepreneurs. Despite the unfavorable momentum against ambitious environmental policies at the time of negotiation, the reinforcement of the supporting coalition tipped the balance of power in favor of its desired outcome. Although discursive influence and coalition formation significantly impacted the process, our findings suggest that they should be assessed and interpreted within the broader political context. Furthermore, when evaluating their influence on policy-making processes and their outcomes, the decision-making power and political leverage embedded in actor coalitions should be thoroughly examined.

Our study has certain limitations. While our findings highlight the substantial role of discourse and coalition formation in EU environmental policy-making, the direct causal relationship between these factors and the policy-making process and its outcome cannot be conclusively determined from the data examined. Instead, our findings suggest that additional factors influenced the political discourse, the policy-making process, and its outcome. These factors include political developments at both international and national levels, with the latter influencing the voting behavior of national ministers in the Council, the mobilization of key actors from outside the analyzed policy network, and broader concerns about the credibility of EU political institutions and the ordinary legislative procedure. Together, these factors appear to have counterbalanced the opposing coalition's dominance in the analyzed policy debate.

Future discourse analyses of EU forest and environmental policy should consider comparing country-specific discourses across EU-MS and their respective interest groups to assess their influence on higher-level political processes and the voting behavior of national ministries in the Council. Furthermore, despite the

direct applicability of the EU-NRR, its long-term success and implementation in forest ecosystems will depend on its alignment with national forest and environmental policies, regulatory frameworks, and prevailing management practices, as well as meaningful collaboration with public and private forest owners and managers. These actors, however, largely adopted a critical stance in the policy debate. It therefore remains uncertain whether the enthusiasm demonstrated by policy entrepreneurs following the adoption of the EU-NRR will persist over time, particularly when confronted with local realities (Bull et al., 2018). In the end, the success of the EU-NRR hinges on convincing landowners and local stakeholders of the tangible benefits of restoration. This outcome can only be achieved through collaborative empowerment and sufficient financial support for forest restoration measures and potential income losses.

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Conflict of Interests

The authors declare no conflict of interests.

Supplementary Material

Supplementary material for this article is available online in the format provided by the authors (unedited).

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