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Litigating Across Borders: Subnational Actors and Supranational Governance in the Turów Dispute

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Abstract

The Turów lignite mine dispute is an unprecedented conflict between two EU neighbors. Sparked by a flawed Polish environmental impact assessment and a Czech complaint to the Court of Justice of the European Union in February 2021, it was resolved nearly a year later through an intergovernmental agreement in February 2022. Unlike conventional coal-related disputes confined to national jurisdictions, this case escalated to the European level, involving actors from subnational to supranational levels. This exemplifies the evolving nature of transboundary environmental conflicts within a multi-level governance framework. Using discourse network analysis, this study of the politics of environmental networks examines (a) whether and under what conditions the Turów dispute exhibits a meaningful dispersion of authority, and (b) the extent to which bargaining dynamics tracked de facto rather than de jure competencies. We map how governance-level interactions unfold, what positions actors articulate, and what alliances they form. The results indicate that the governance of the issue resembled a polycentric structure at the beginning of the conflict. Over time, it gradually shifted into a more hierarchical structure, where the regional and national governments concentrated power, sidelining other actors from the issue resolution. This complicates multi-level governance's polycentric/hierarchical distinction, showing that both types can coexist within a single case. The recentralization of authority was likely enabled by framing the issue as groundwater depletion rather than climate threat. While this raised the problem to the national agenda, it may have narrowed the solution space to technical fixes in subsequent Czech–Polish negotiations, favoring national-level solutions.

Keywords

coal mining; coal phase-out; Czechia; environmental networks; Turów

1. Introduction

On September 20, 2021, the Court of Justice of the European Union (CJEU; in Case C-121/21 R) levied a daily fine of €500,000 on Poland for failing to suspend lignite extraction at the Turów open-pit mine. The complex directly employs about 3,600 people, supplies around 5% of Poland's electricity, and affects the entire region's economy (Abnett & Barteczkoo, 2021; Smoleń et al., 2024). This daily penalty responded directly to Poland's decision to prolong the mine's license to 2044 without conducting a mandatory transboundary environmental impact assessment that would address Czech concerns over groundwater depletion, air quality, and public health (Böhm et al., 2025; Ondráček et al., 2024; Sobota et al., 2024).

The order was exceptional in two respects. First, the €500,000-per-day penalty is the largest daily sum the CJEU has ever set in an environmental case, five times higher than the €100,000 per day threatened in the Białowieża logging order of November 20, 2017 (Case C-441/17 R). Second, Turów is the first case in which the CJEU fined one member state following an Article 259 suit under the Treaty on the Functioning of the European Union brought about by another member state over an operating coal mine. The Czech action—grounded in formal complaints and evidence compiled by Liberec regional and municipal authorities—was lodged after the European Commission was notified. The ruling shows that subnational bodies can secure EU-level sanctions through their national government to protect cross-border environmental interests.

Turów's significance also reaches well beyond the Czech–Polish–German border. The case exposes the limits of EU climate policy: Despite Green Deal ambitions, regulatory gaps have allowed one of the top 10 polluting coal-fired power plants in the EU (Fox, 2023; World Wildlife Foundation, 2005) to secure licenses that extend operations for decades. Because continued mining disqualifies the surrounding district from the Just Transition Fund, the area will serve as a natural counterfactual for studying development trajectories of coal mining regions with and without Just Transition Fund assistance. In short, Turów casts doubt on any narrative of an inevitable or orderly coal exit in the EU.

The case is equally significant for scholars of multi-level governance (MLG). The escalation from local groundwater complaints to a supranational court ruling, followed by diplomatic negotiations between Prague and Warsaw, exemplifies the EU's broader shift toward empowering subnational and non-state actors. Current EU regulatory architectures increasingly enable these actors to articulate and pursue their interests directly through supranational channels (Clinton & Arregui, 2024; Hadjiyianni, 2020), a process called "boomerang effect" (Keck & Sikkink, 1998; Sikkink, 2005). As Piattoni (2010) and Stephenson (2013) explain, decision-making power often leaks across territorial tiers, a phenomenon they regard as fundamental to MLG. The Turów case thus offers a real-world illustration of the authority-dispersion narrative at the heart of the MLG research agenda.

However, a closer look at the issue's evolution complicates this narrative. The final settlement on February 3, 2022, was negotiated directly by Czech Prime Minister Petr Fiala and Polish Prime Minister Mateusz Morawiecki, with minimal involvement of the regional and civil society actors who had initially set the process in motion (Ondráček et al., 2024; Sobota et al., 2024). The agreement's substance—financial compensation for the Czech side and the continuation of mining on the Polish side—largely reflected national government priorities at the expense of local demands. These outcomes suggest that, despite the earlier activation of supranational and subnational channels, decisive authority ultimately remained with the national executives.

This apparent mismatch between theoretical expectations and observed practice motivates our first research question: Does the Turów case exhibit a meaningful dispersion of authority? Or does it reveal the state's capacity to reassert control over the result of an environmental conflict? Under what conditions?

This question also speaks directly to a long-standing debate within MLG scholarship. A recent review of the field (Papadopoulos et al., 2024) shows that empirical work still concentrates primarily on formal competencies and territorial jurisdictions, whereas systematic analyses of processual bargaining remain comparatively rare. The Turów conflict offers an opportunity to redress this imbalance by juxtaposing formal powers with observed influence over outcomes. We therefore ask a second question: To what extent does the configuration of bargaining track the formal competencies of the actors involved or, alternatively, their informal influence?

To address both questions, we study the issue from the perspective of political networks, using discourse network analysis (DNA; Leifeld, 2013; Leifeld & Haunss, 2012). This approach is particularly suitable for studying environmental governance issues, as it allows the power relationships of actors to be inferred through political discourse (Hajer, 1995). The DNA approach is already well established, with applications in the study of energy transitions (Markard et al., 2021), coal-exit debates (Černý & Ocelík, 2020), and environmental and energy governance from a broader perspective (Haunss & Hollway, 2022; Nagel & Bravo-Laguna, 2022).

Discourse network analysis is particularly appropriate in our case because it enables the reconstruction of policy actor networks without surveying them and, crucially, allows for a precise observation of changes over time that is difficult to achieve with surveys (Leifeld, 2013; Neal, 2014). We identify which regional, national, supranational, or non-state actors are central at each stage and through which alliances they exercise influence. Standard network metrics—weighted degree, betweenness, and clustering—serve as proxies for de facto influence, which we contrast with each actor's competencies de jure. In doing so, we operationalize MLG's frequent invocation of "networks" (Papadopoulos, 2005) with a formal analytical toolkit, enhancing both the construct validity and the practical relevance of our findings. This article concentrates predominantly on the Czech side of the conflict, as it might alone shed light on the primary research problem. While Polish or German actors might appear in the data, we do not focus specifically on those and refer readers to the body of already published papers on various facets of cross-border cooperation in the wake of the Turów case (Böhm et al., 2025; Kurowska-Pysz et al., 2022; Łaźniewska et al., 2023; Wróblewski et al., 2023), the conflict's evolution with emphasis on disagreements between Czech and Polish actors (Ondráček et al., 2024), the security discourse's role in the conflict (Polko et al., 2024), the politics around the implementation of a water directive (Sobota et al., 2024), the role of socioeconomic factors on the positions of regional residents (Żuk, 2023), or a critical assessment of the conflict's evolution and the Polish government's role in it (Polko et al., 2024; Żuk & Żuk, 2022). We also offer a concise case description and the formal competencies of Czech actors in the Supplementary File (Part I).

Section 2 presents the theoretical framework, drawing on MLG, discourse, discourse coalitions, and discourse networks to support the article's key assumptions. Section 3 outlines the methods, including the media data collection, the extraction of discourse networks through coding, and the subsequent network analysis. Section 4 presents the main findings, focusing on the networks' properties, the centrality of actors, and their overall structure. Section 5 concludes with a discussion of the main findings.

2. Theory

2.1. MLG

Developed in the early 1990s to explain how EU structural funds reconfigured territorial authority, the MLG framework depicts a polity in which national governments no longer monopolize decision-making (Stephenson, 2013). Policy competencies increasingly migrate upward to supranational institutions and downward to regional and local arenas as a consequence of complex, interdependent policy problems and the growth of cross-level networks (Betsill & Bulkeley, 2006). Piattoni (2009) locates this shift in three dynamics: devolution to subnational tiers, expanded co-decision-making with organized civil society, and the partial surrender of sovereignty through supranational coordination. The result is what Hooghe and Marks (2003) famously termed the "unravelling of the state": a system in which compliance hinges on negotiation among a heterogeneous constellation of actors rather than on unilateral command (Daniell & Kay, 2018; Ruzza, 2007).

Hooghe and Marks (2003) distinguish two ideal-typical governance architectures. Type I resembles federalism: Authority is nested in a limited number of territorially fixed, mutually exclusive tiers (e.g., municipalities, regions, member states, EU). Type II is polycentric: It comprises numerous, overlapping task-specific jurisdictions that cut across scales and blur public–private boundaries. Intermediate, empirically observed hybrids lie on a continuum between these poles. Polycentricity—and thus horizontal contestation—is markedly higher under Type II, whereas power asymmetries in Type I are primarily determined by constitutional decentralization.

Although scholarship converges on the view that authority is now dispersed across multiple tiers, that shift's magnitude—and reversibility—remain contested (Di Gregorio et al., 2019). This debate is particularly acute in climate governance, where global regulatory ambitions—for example, efforts to limit CO_2 production—intersect with place-based impacts, such as Turów's role in local employment, pollution, and energy security. Such cases illustrate climate change's "glocal" character, whose drivers and remedies span scales from the supranational to the local (Gupta, 2007).

Multi-level climate governance consequently involves a heterogeneous assemblage of national, subnational, and transnational state and non-state actors. Notwithstanding a recent surge in MLG scholarship, we still lack a systematic understanding of how power configurations shape the vertical integration of decision-making. Research has centered on national–supranational linkages, whereas national–subnational interactions remain under-examined (Di Gregorio et al., 2019). Emerging evidence further indicates that state actors still orchestrate multi-level environmental regimes (Brockhaus & Di Gregorio, 2014; Di Gregorio et al., 2019; Hale & Roger, 2013). Thus, despite the "unravelling of the state," hierarchical levers seem to persist and may enable or impede policy coherence across scales.

Over time, MLG has become a core lens for analyzing EU decision-making and is now widely applied to other regions and policy arenas—especially environmental governance, where coordination across tiers is indispensable. A systematic review by Papadopoulos et al. (2024) of 590 MLG publications (1993–2018) shows that 20% of all studies address the environment or energy; within the narrower corpus of empirical articles, those classified under "environmental policy" constitute 31%.

2.2. MLG and Networks

Although many MLG studies speak of "networks," far fewer operationalize them with a formal network analysis; notable exceptions are for example works of Di Gregorio et al. (2019) and Nagel and Bravo-Laguna (2022). Treating MLG as an inter-organizational network allows scholars to map who influences whom, revealing how states both wield and face constraints in multi-level climate governance. This perspective helps clarify the unresolved question of whether dispersed authority promotes or hinders coherent policy integration.

A second strength of our network-based approach addresses the persistent divergence between actors' formal competencies and their effective influence—an issue highlighted systematically by Tortola (Papadopoulos et al., 2024; Tortola, 2017). At its heart, MLG scholarship still oscillates between two analytical foci. One strand treats MLG primarily as a reconfiguration of formal institutional architectures—territorial and functional jurisdictions, treaty revisions, or inter-level partnerships. The other, closer to Hooghe and Marks's (2003) original ambition, views MLG as a lens on policy practice, attentive to informal rules, bargaining routines, and the everyday "workaday" politics that elude constitutional description (Piattoni, 2009; Tortola, 2017). This split leaves the informal, networked dimension largely underspecified and under-researched. With respect to this discussion, the approach of policy networks is particularly useful, as it allows us to grasp the power relations among actors regardless of their formal relationships (Borgatti et al., 2018).

2.3. Discourse and Policy Formation

Uncovering networks is, however, a non-trivial task. We approach policy networks as an intersubjectively constructed product that is the result of the use of language (Fischer, 2003). Within this tradition, our research draws on the notion of political discourse, specifically Hajer's perspective. Discourse manifests itself as a grouping of ideas, concepts, and categories through which a phenomenon is given meaning (Hajer, 1995). Discourses delimit certain topics and shape the context in which the phenomenon is understood (Hajer, 1993, pp. 45–46), ultimately defining policy (Hajer, 1995).

The policy space could be seen as a product of interactions—"discursive struggles"—among actors, who use social constructs to advance their understanding of an issue and construct and re-construct the shared understandings of phenomena (Fischer, 2003). This happens through a process of articulation (Fairclough, 1993): the "creation of a new, apparently unified, discourse made of distinct components that can make sense only under particular circumstances and yet can be put forward in an attempt to establish an authoritative explanation of a phenomenon" (Roper et al., 2016). The ability to dominate discursive struggles gives actors the power to influence how policy is shaped (Hajer, 1995, 2006). Control over the discursive space makes certain courses of action straightforward and logical, while others are not viable. In other words, "the way actors define issues through shared discourses influences their [issues'] recognition as [a] public policy problem and the subsequent policy response" (Kern & Rogge, 2018). At the same time, following the idea of structuration (Giddens, 1984), the discourse also restrains actors and creates, cultivates, and reinforces boundaries within which any policy action is taken or avoided.

2.4. Discourse Coalitions

To affect the discourse, actors leverage constructs to justify courses of policy action. A set of similar constructs combine to form "story-lines" (Hajer, 1995). Their role in the discourse is crucial: "Story-lines fulfil an essential role in the clustering of knowledge, the positioning of actors, and, ultimately, in the creation of coalitions amongst the actors of a given domain" (Hajer, 1995, p. 63). Story-lines do not need to be consistent, constructs need not be in line with others; they just belong to the same discourse, and through story-lines, discourse is invoked. Moreover, they are not static and may evolve and change over time, in line with the intersubjective constructivist perspective (Hajer, 1995, 2006).

An important notion and innovation of Hajer's approach to discourse is the formation of "discourse coalitions"—"ensemble[s] of a set of story lines, the actors that utter those story lines, and the practices through which these story lines get expressed" (Hajer, 2006, p. 67). Actors may be attracted to similar story-lines for various reasons, forming discursive coalitions in the process: "Story-lines are here seen as the discursive cement that keeps a discourse-coalition together" (Hajer, 1995, p. 65). The coalition holds together as long as actors stay committed to the story-lines. Yet, the commitment does not have to be based on any deeply held beliefs (Rennkamp et al., 2017) or even narrowly focused interests (cf. Hajer, 1995, pp. 59, 68–72).

2.5. Operationalization

We position our research within the literature that uses MLG together with the formal network perspective (Di Gregorio et al., 2019; Nagel & Bravo-Laguna, 2022) and that specifically employs the DNA approach (Leifeld, 2013; Leifeld & Haunss, 2012). DNA allows us to examine policymaking as it plays out in the public discourse, integrating both Hajer's perspective on discourse (Rennkamp et al., 2017) and MLG in a neat and straightforward manner. A discourse network is a two-mode network that consists of actors and the constructs they utter, along with actor attributes such as the MLG level they operate on.

The resulting network of ideas is a "form of connection, [through which] one articulates an idea, argument, interest, or discourse with another" (Roper et al., 2016). Following Leifeld's terminology, we use the term "concept" to signify a construct henceforth.

Network operationalization enables us to use metrics and tools from the social network analysis toolkit. Actors and/or articulated concepts at the center of such a network could be considered the most influential for the policy process (Leifeld, 2013, 2016) or, in other words, the most powerful. We approach power as centrality, using degree and betweenness as metrics (Freeman, 1978). Along with that, the configuration and structure of the network allow for the identification of the discursive coalitions, story-lines (Hajer, 2006), and actor types forming the coalitions. We find coalitions through the measurement of clustering in the network (Blondel et al., 2008). Pairing coalitions with the types of actors or levels they operate at allows us to capture actors from the MLG perspective, which would be hard or impossible to achieve through direct measurement (Neal, 2014).

Secondly, the DNA lens is superb for dynamically examining policymaking. Manifested concepts have a clear temporal dimension—they are uttered at distinct points in time. Concepts important to actors are articulated by many, opening space for the investigation of the actors' similarity. Any changes in positions, radical turns, or departures from the previous stances of actors towards concepts can be observed—actors start to subscribe to

different concepts—thereby illuminating the stability and evolution of story-lines (Hajer, 1995). This dynamic perspective is assumed to be less affected by the recall bias of actors or selective/strategic communication, as argued by Leifeld (2013).

3. Data and Methods

3.1. Time Frame

The study spans a year of the Czech–Polish conflict over Turów, from February 26, 2021, to February 3, 2022. As argued in the case description (see Supplementary File, Part I), we empirically chose four major events that occurred in the selected time span based on exploratory pre-research conducted before the data collection. They were chosen with regard to their potential to alter the dynamics of the conflict and include: (a) the CJEU decision to issue an injunction against Poland (May 22, 2021); (b) the Czech appeal to the CJEU to fine Poland for injunction non-compliance (June 8, 2021); (c) the CJEU decision to fine Poland €500,000 per day of non-compliance (September 21, 2021); and, lastly, (d) the Czech parliamentary elections, marking a change in the Czech government (October 9, 2021). These four milestones split the time frame of the study into five periods.

3.2. Data

We collected media articles from Czech national print using the media database Newton One—a tool similar to LexisNexis that contains all media content published in Czechia, both print and online. The database was queried for all articles published in the national print media containing the keyword "Tur[óo]w" at least once. The search returned 393 articles.

All articles were imported into the software Discourse Network Analyzer (Leifeld, 2019), recording all available metadata (notably, source, author, and time of publishing). There was no initial filtering based on article length, type, or relevance, ensuring the broadest possible scope of reported actors.

All articles were thoroughly read, and relevant claims were highlighted for coding to their fullest extent, with a single candidate claim containing a single coherent idea. Given the broad scope of keyword search, not all articles contained claims—only 212 out of 393 articles contained at least one claim. Together, 996 claims were identified. The claim-making process is not evenly distributed over the chosen period and corresponds with developments over the issue and subsequent media attention cycles. Spikes of coverage occur around or after notable events (milestones discussed above), as evidenced by the distribution of claims over the entire time frame of the study in Figure 1. We summarize all five periods in Table 1, providing time spans together with the number of claims in each period.

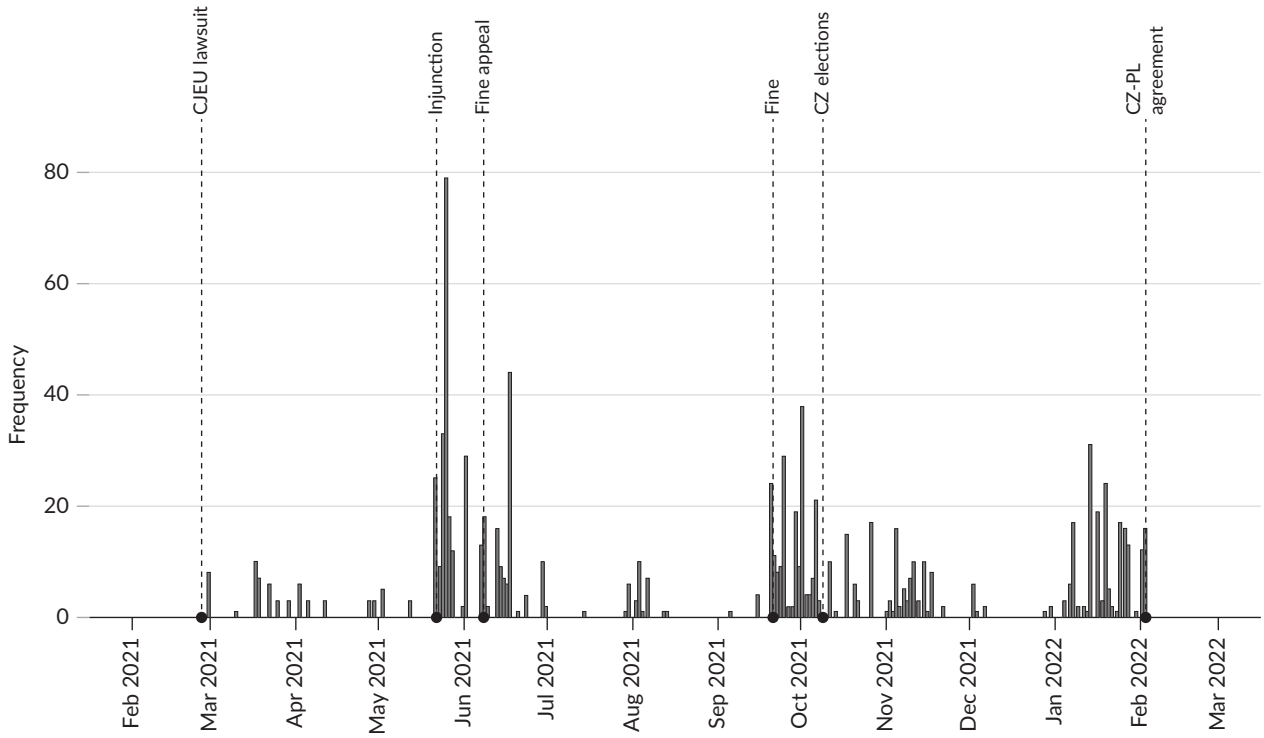

Figure 1. Frequency of claims over time.

Table 1. Milestones, time periods, and claims.

Period	Starting event	Time span	Days	Claims
1	Case brought to the CJEU	Feb 26–May 21	84	73
2	CJEU injunction	May 22–Jun 7	16	208
3	Czech fine appeal	Jun 8–Sep 20	104	208
4	CJEU fine decision	Sep 21–Oct 8	17	190
5	Czech parl. elections	Oct 9–Feb 3	117	327

3.3. Coding

Coding similar to qualitative content analysis was used to categorize and process claims extracted from the media data. Each "actor" could be understood to be represented by two features—a "person" communicating and an "organization" or position on behalf of which the person communicates. This actor communicates the "concept"—an idea that is part of a story-line. The actor also aligns themselves with or distances themselves from the concept through "agreement."

Thus, the claim-making activity consists of four essential components (Leifeld, 2016):

- Person—the author or individual making the claim;
- Organization—the organization that the person represents;
- Concept—the idea or position—part of the story-line—communicated in the claim;
- Valence—(dis)agreement with the concept, positioning the author towards/against the claim.

The relational aspect of the claim-making process is the tie formed between the actor and the concept, which is qualified by the valence (agreement/disagreement tie). The aggregate of all actors and claims they subscribe to may be formalized as a two-mode network of actors and concepts and can be more formally analyzed with the help of the social network analysis toolkit.

The four dimensions of claims are represented by four variables recorded for every claim. Person and organization are classified through their reported name/affiliation as two separate nominal variables. We identified 122 persons belonging to 55 organizations. Two checks and a final consistency check were performed during the coding process to ensure correct affiliation. The concept, the third nominal variable, is classified with the help of a codebook of claims, which was built inductively from the data (Krippendorff, 2013; Leifeld, 2013). The first phase was open coding, where the content was coded as close to the original meaning as possible (Rivas, 2012; Saldaña, 2016). Two rounds of coding scheme refinement followed, during which codes were checked for overlaps and consistency. Codes used sparsely or defined in an overlapped way were discarded and/or recoded. This process resulted in 30 final codes. Together with every concept code, a fourth variable representing (dis)agreement was recorded as a Boolean value, with 0 representing disagreement and 1 representing agreement.

All coding work was primarily done by the first author, with regular checks for consistency. Coded statements were randomly selected and repeatedly evaluated. In case of doubt, all statements coded with the code in doubt were reassessed. For more details, see Supplementary File. Part A discusses the statement definition in more detail. Part B contains a coding scheme for claim concepts. Part C contains a list of all persons and their affiliations, and Part D lists all organizations, their type, and color coding.

3.4. Networks

After coding all claims, we constructed four types of networks for each time period. The first type was a two-mode weighted network, including both statements and organizations and offering full insight into the data. The second, third, and fourth types were derived from the two-mode network, forming two one-mode network projections of organizations connected through concepts.

The weight in the two-mode network captures each policy actor's (organization's) overall agreement or disagreement with the concept, each tie between an organization and concept being the sum of agreements and disagreements—what Leifeld (2016) calls the "subtract" weighting of a network.

The second type of network is a one-mode projection, where both agreement and disagreement ties are present as a result of the "subtract" weighting of the ties—we refer to these networks as "one-mode subtract" networks. The third type is a "congruence" network, where two organizations form a tie if both share either an agreement or a disagreement with a concept. The fourth network is similar to the third. However, each tie captures two organizations that disagree over a concept (e.g., one organization agrees, while the other does not), forming a one-mode conflict network (Leifeld, 2016, 2019).

3.5. Social Network Analysis

Once the networks are obtained, we apply the standard toolkit of social network analysis, enabling us to examine and describe them as a whole through their individual components and sub-parts.

First, we describe the basic properties of all two-mode networks—the number of nodes, number of ties, average degree, and the components of each network (Borgatti et al., 2018). We also report these properties for one-mode subtract networks, complemented by the number of isolates, as these may be present in the derived one-mode projections.

Second, we use degree centrality to identify the most central actors in each period and respective network. These measures reveal the importance of actors through their connections, rather than solely through the frequency of their statements. Chosen centralities identify actors that are well-connected discursively to other actors, as well as those that bridge discourse constellations. We apply degree and betweenness centrality (Freeman, 1978; Wasserman & Faust, 1994) on one-mode projections of organizations, with subtract ties—specifically (a) degree centrality excluding tie weight, (b) degree centrality including tie weight, and (c) betweenness centrality (Barrat et al., 2003; Freeman, 1978). The degree indicates how well actors are connected with others through concepts, capturing discursive similarity. Most central actors are thus the ones that are discursively similar to many others or are very well discursively aligned with other actors, indicating their power in discursive struggles. Betweenness centrality captures the ability of actors to bridge areas in the discourse network. Since the results of centrality measures cannot be compared directly, we do so by ranking organizations according to their centrality and comparing these rankings over time. This allows us to see how the prominence of actors—their congruence or agreement with most other actors—changes temporally. Lastly, we interpret the evolution of centrality based on the type of organization according to the MLG perspective.

Along with degree, we use modularity-based community detection on the one-mode projections of organizations connected through concepts. Specifically, we use the Louvain method, which finds communities through modularity optimization (Blondel et al., 2008). We apply this algorithm to both the one-mode subtract network of organizations and the one-mode congruence network of organizations for each period. This community detection algorithm is widely used and has performed well in identifying communities (Lancichinetti & Fortunato, 2009; Yang et al., 2016). However, it cannot detect overlapping communities, may produce weakly connected communities, and can potentially overlook subcommunities due to the modularity resolution problem (Traag et al., 2019).

All visualizations of networks were conducted using the software Visone (Brandes & Wagner, 2016). Parts of the analysis and visualizations were conducted using R (R Core Team, 2017) and the package igraph (Csardi & Nepusz, 2006).

3.6. Limits

Inevitably, the study of networks extracted from media data has limitations. The first set is mostly related to the logic of news media production. Media follow norms such as novelty or timeliness and have editorial policies in place that might affect the coverage of an issue (Boykoff & Boykoff, 2004). There is also a threshold for media access, and not all actors are granted a platform to express their ideas, potentially overrepresenting governmental actors. Moreover, media outlets are shown to frame issues in particular ways (Entman, 1993). Hence, despite the inclusion of the broadest possible sample, the data might still offer a government-centric perspective. We cannot estimate how these effects influence the coverage—an obvious limitation of any study using a DNA approach based on media data. As argued by Leifeld (2013, 2016), media coverage can only be

assumed to correspond to the underlying policy network. Some empirical evidence supports this assumption (cf. Schaub & Metz, 2020). A second set of limitations arises from the exclusive focus on Czech media data. As a result, the study provides a Czech-centric perspective and does not fully capture actors present in Polish or German media discourse. Although beyond the scope of this article, examining German and Polish actors could be a direction for future research.

4. Results

4.1. Network Descriptives

First, we present network descriptives for the two-mode networks. Table 2 presents the basic parameters of the five two-mode networks representing each period. While all networks in periods 2–5 have a roughly similar number of nodes and edges, the first period has fewer nodes and fewer edges. Networks in period 1–4 have one component only; in period 5, the network has one large component and one unconnected concept-organization tuple.

Table 2. Two-mode subtract network descriptives.

Period	Nodes	Concepts	Organizations	Edges	Number of components	Largest comp. size
1	33	19	14	39	1	33
2	50	25	25	92	1	50
3	50	25	25	106	1	50
4	47	21	26	88	1	47
5	59	26	33	124	2	57

Table 3 presents the basic properties of the one-mode subtract (agreement–disagreement) network projections of the two-mode networks described above. The smaller number of nodes in the first period results in a correspondingly smaller one-mode projection. Average degree fluctuates across periods, with period 3 showing the highest average degree, followed by periods 5 and 4. Period 3 also exhibits a markedly higher modularity value compared to the other four periods. Visualizations of these networks are included in Supplementary File, Part G.

Table 3. Descriptives of one-mode organization subtract networks.

Period	Nodes	Edges	Isolates	Average degree	Louvain clusters	Louvain modularity
1	17	38	0	4.471	3	0.185
2	29	111	0	7.655	4	0.17
3	27	160	0	11.852	2	0.548
4	28	129	0	9.214	2	0.102
5	36	262	1	14.556	3	0.231

4.2. Actor Centrality Over Time

This section of the results presents the evolution of actors' centrality in the networks over time. Degree centrality, extracted from the one-mode organization projections, is reported for all five periods. For clarity and space considerations, only the weighted degree and the 10 most central actors—those with the highest average rank positions—are shown (Figure 2). The centrality scores and a complete set of rankings are presented in Supplementary File, Part H. It is also worth noting that some actors were absent in all five periods. In such cases, we added a light gray line linking adjacent observations. We used color coding for each actor, with similar organizations assigned the same color. The color-coding scheme can also be found in Supplementary File, Part D.

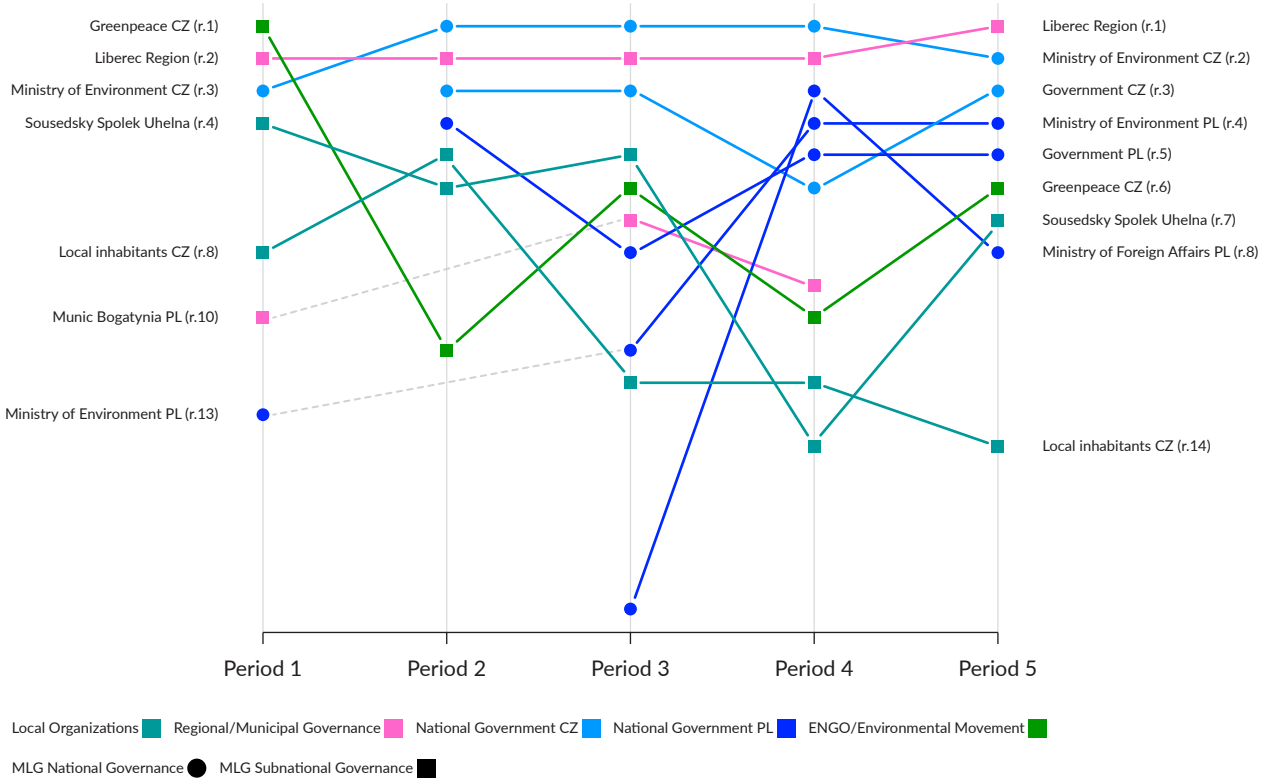

Figure 2. Weighted degree centrality. Top 10 actors based on their average rank and evolution over periods. Note: Rank represented as (r.)

Figure 2 shows that regional and national government actors are the most central. The weighted ranking clearly indicates that regional and national governmental actors hold the most central positions across all five networks, with the Liberec Region and Ministry of Environment ranking the highest. Subnational actors Greenpeace CZ, Sousedský Spolek Uhelná (Neighborhood Association Uhelná; local NGO representing the most affected the most by mining in Turów), and Local inhabitants CZ (people from localities close to Turów who voiced their concerns) also rank high in centrality. Still, their influence decreases over time, dropping most noticeably in the fourth period (between the decision to fine Poland €500,000 per day for non-compliance and the Czech parliamentary elections). From the third period onward, there was a visible increase in the centrality of some Polish national government actors, who became highly central in the fourth and fifth periods.

This is interesting from the MLG perspective. The results suggest that the regional government (Liberec Region) plays a crucial role alongside Czech national government bodies, except during the initial period. This indicates a certain dispersion of authority. However, such a pattern might be perfectly consistent with both Type I and Type II governance. Further, results suggest that the local level and non-governmental actors lose centrality over time, becoming more sidelined. Lastly, it is interesting that the centrality of the supranational level is low, likely because these actors apparently do not appear in the discourse very often and/or are not engaged in the national discussion.

4.3. Networks of Organizations and Concepts

This section presents a qualitative interpretation of the two-mode networks (showing which organizations link to which concepts), along with interpretations of the one-mode congruence and conflict organizational network projections. For each period, we present and discuss a two-mode network subtract network with tie weights in the top part of the figure of each period. These figures help us understand the overall structure and content of the discourse for each period. This is followed by the one-mode congruence projection of organizations, showing clusters, tie weights, and degree centrality in the bottom-left part of the figure, complemented by the conflict network with tie weights in the bottom-right. These figures allow us to understand how discourse coalitions are structured. Finally, we interpret these results from an MLG perspective. Due to space constraints and the focus of this article, we primarily concentrate on organizations. For a more detailed discussion of concepts and their evolution over time, see Supplementary File, Parts E and F.

The first period (February 2–May 21, 2021, Figure 3a) was marked by strong cohesion among Czech actors, with adverse impacts on water availability (code: harm_water) as the dominant concept. Discussions focused on groundwater depletion, with little attention to solutions. The discourse was in an early, problem-identification phase rather than a negotiation phase.

On the Czech side, the Liberec Region and Greenpeace CZ played a central role in emphasizing groundwater depletion as the primary environmental concern. Sousedský Spolek Uhelná and local inhabitants reinforced this argument, citing direct impacts on their water supplies. Czech local and national government actors collectively framed the issue as a violation of EU environmental law, highlighting Poland's failure to conduct transboundary consultations under the Environmental Impact Assessment and the Water Framework directives. Polish actors present in the network emphasized various facets of justice, framing the Turów mine as essential for jobs and regional stability. Polska Grupa Energetyczna (PGE; Polish Energy Group) and Polish government institutions argued that mining continuity safeguards livelihoods and prevents economic hardship, stressing that to stop mining would be to impose an unjust burden on local workers and communities.

A key point of contention arose over the fairness of legal procedures (justice_fair_procedures), with Czech and Polish government actors disagreeing. Czech authorities claimed that Poland bypassed transboundary consultations, while Polish institutions maintained that the licensing process was conducted in accordance with national regulations.

The Czech actor network was highly unified, with regional authorities, environmental groups, and local communities aligned on groundwater concerns. Polish actors, in contrast, focused on economic stability and

fairness, portraying external pressure as an overreach into domestic policymaking. This phase set the stage for deeper conflict: Czech actors escalated legal action, bringing the case to the CJEU in February 2021, while the Polish actors reinforced claims of economic necessity and sovereignty, leading to ongoing disputes over compliance and compensation.

The lack of conflict is clearly visible in the one-mode projections. The congruence network (Figure 3b) illustrates the patterns described above. The Czech actors show strong agreement, with agreement links

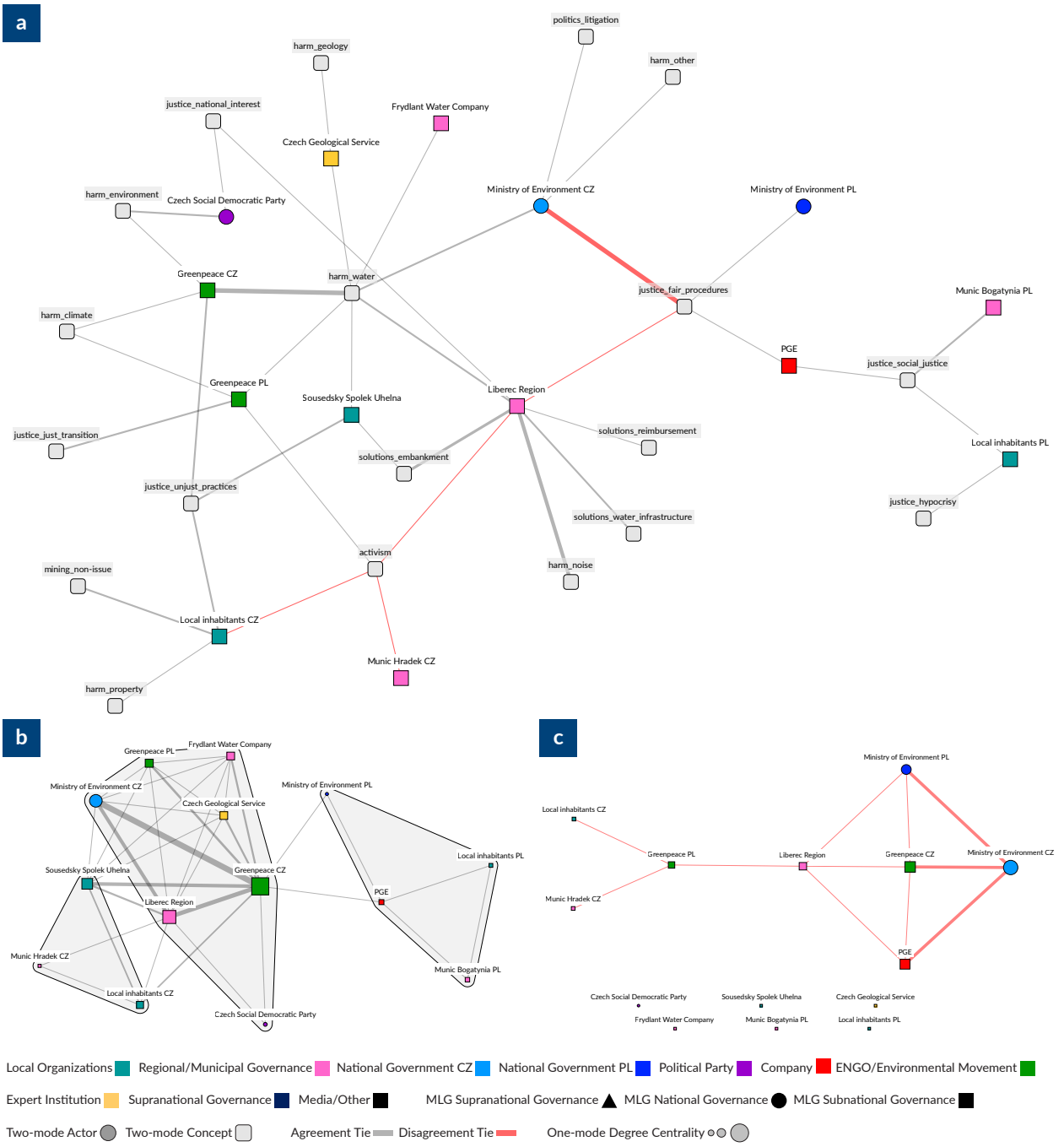

Figure 3. Period 1: (a) two-mode subtract network, (b) one-mode organization congruence network, and (c) one-mode organization conflict network.

among the Czech Ministry of the Environment, Greenpeace CZ, and the Liberec Region. At the same time, Sousedský Spolek Uhelná is somewhat aligned with these actors as well. Polish organizations, in contrast, are mostly disconnected and generally disagree with Czech actors, as reflected in the conflict network (Figure 3c).

From an MLG perspective, it is worth highlighting the congruence across different actor types, regardless of the level of governance or national boundaries. Within the identified coalitions, local, regional, and national Czech actors demonstrate clear alignment. Interestingly, Greenpeace PL is also present within one of these two communities, indicating a degree of coordinated campaigning and engagement across the two national branches of the organization. A similar cross-level congruence is visible among Polish actors in the last coalition. Notably, supranational governance actors (European Commission, CJEU) were absent from the discourse during this period.

We observed an interesting trend in the second period (May 22–June 7, 2021, Figure 4a). While harm_water remained central, reinforced by the Liberec Region, Greenpeace CZ, and Sousedský Spolek Uhelná, Czech government actors, particularly the Ministry of the Environment, began advocating for negotiations and a possible agreement with Poland.

Discussions shifted toward solutions, including reimbursement for water infrastructure improvements and an underground barrier to prevent water outflow, supported by the Liberec Region and the Ministry of the Environment. An embankment to reduce dust and noise pollution was also considered. PGE, the Polish government, and local authorities in Bogatynia rejected the Czech claims and challenged the CJEU ruling as unjust, emphasizing jobs, economic stability, and energy security. Their focus on the concept justice_social_justice presented the dispute as a threat to local livelihoods rather than an environmental issue.

Disagreements persist over justice_fair_procedures. The Czech Ministry of Foreign Affairs and the Liberec Region argue that Poland bypassed transboundary consultations, whereas the Polish Ministry of Climate and Environment defended its legal compliance. Despite this, the Czech Ministry of the Environment signaled openness to a diplomatic solution.

The Czech side of the network began to fragment. While the Liberec Region and the Ministry of the Environment explored compensation-based solutions, Greenpeace CZ and Sousedský Spolek Uhelná insisted that only stopping the mining could prevent further groundwater depletion. Meanwhile, the Polish actors remained united, emphasizing economic necessity and sovereignty. The divide among the Czech actors—between those favoring negotiation and those opposing mining altogether—marked a turning point in the discourse, shaping the later phases of the conflict.

The one-mode projection of congruence (Figure 4b) shows what can be understood as the emerging fragmentation of agreement. While the strongest interconnections based on congruence over concepts are found among the Liberec Region, the Ministry of Environment CZ, the Czech government, and the Polish government, these actors belong to three distinct coalitions. The Ministry of Environment CZ, Sousedský Spolek Uhelná, Greenpeace CZ, and other actors form the first coalition. The second includes the Liberec Region and the Czech government. The third coalition groups Polish actors, including government ministries, PGE and its unions, as well as the local pro-mining movement Hands Off Turów, which was composed of

concerned local citizens likely dependent on the mine's operation—they organized road blockades during this period in protest. The conflict network (Figure 4c) is dominated by this pro-mining movement, which directly opposes many of the Czech actors' claims.

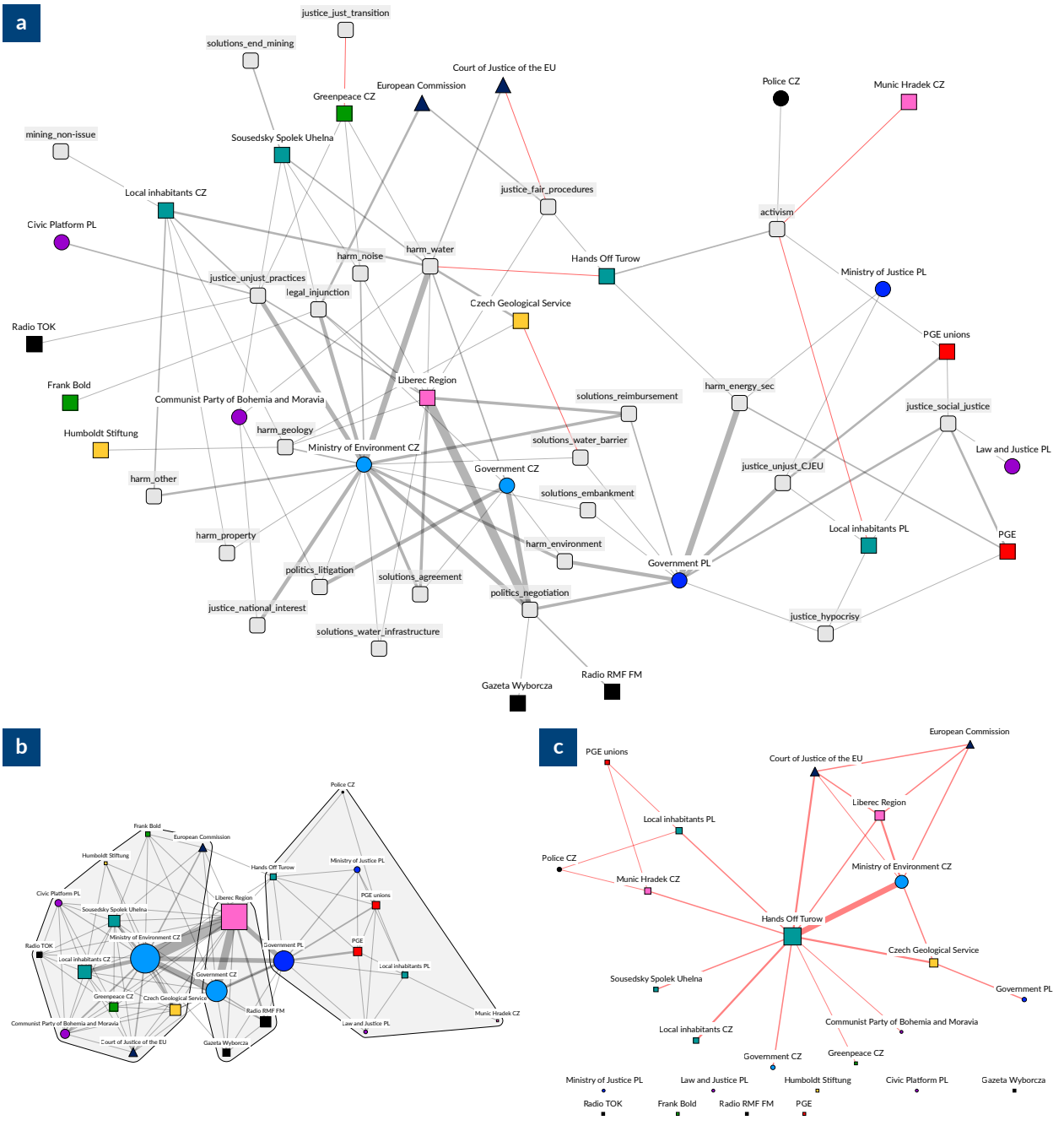

Figure 4. Period 2: (a) two-mode subtract network, (b) one-mode organization congruence network, and (c) one-mode organization conflict network.

From an MLG perspective, the congruence network (Figure 4b) is particularly informative. The first coalition, consisting primarily of the Liberec Region and the Czech government, shows signs of cooperation between regional and national authorities. The second coalition contains Czech actors, with the Czech Ministry of the Environment maintaining interconnections with the first coalition and other actors across governance levels. Interestingly, both the European Commission and the CJEU are present in this coalition, indicating some congruence with Czech actors, although they are relatively weakly connected. The third coalition consists of Polish actors, demonstrating cross-level congruence similar to that observed in previous periods.

The debate expanded in the third period (June 8–September 20, 2021, Figure 5a). The Czech actors proposed appealing to the CJEU to fine Poland for non-compliance, shifting toward legal enforcement rather than purely diplomatic or technical solutions. At the same time, discussions on mitigation measures fragmented, revealing divisions within the Czech side. While Sousedský Spolek Uhelná and Greenpeace CZ called for a full shutdown of the Turów mine, arguing that mining is the primary cause of groundwater depletion, local and national government actors rejected this as unrealistic. Instead, they debated compensation-based solutions, an underground water barrier, and an embankment to reduce environmental harm. However, the Czech Geological Service expressed skepticism about the water barrier's effectiveness.

On the Polish side, PGE, the Ministry of Climate and Environment, and the Niezależny Samorządny Związek Zawodowy Solidarność (Independent Self-Governing Trade Union "Solidarity") Turów (PGE unions) continued to reject Czech claims, emphasizing justice_social_justice and the economic consequences of halting mining for Bogatynia's workforce. They argued that compliance with the CJEU ruling would result in job losses and energy insecurity, reinforcing their narrative that the dispute constitutes an unfair attack on Polish sovereignty.

Negotiations gained traction as the Czech Ministry of Foreign Affairs and Polish government representatives increasingly framed a diplomatic resolution as the most viable path forward. However, this approach faced resistance from Czech environmental groups and local activists, who demanded stricter EU enforcement and opposed settlements that would allow mining to continue. This period highlights a clear divide among the Czech actors. Whereas the Ministry of the Environment and the Liberec Region focused on negotiations and compensation, environmental NGOs insisted on legal action and the complete cessation of mining, deepening internal tensions within the discourse network.

We expect this increasing tension to underlie the structure of the one-mode projections. The congruence network (Figure 5b) shows alignment among both Czech and Polish government actors—regional (Liberec Region, Municipality of Bogatynia), national (Czech and Polish governments and ministries of environment), and even PGE. The shift of PGE is particularly noteworthy and is likely driven by advocacy for the water barrier as a solution. The second community comprises Greenpeace CZ, Sousedský Spolek Uhelná, local Czech inhabitants, and expert organizations such as the Czech Geological Service and the T.G. Masaryk Water Research Institute (TGM Water Research Institute). The conflict network (Figure 5c) reflects a similar trend, showing growing disagreement over concepts among Czech government actors, environmental NGOs, local actors, and expert institutions.

From an MLG perspective, we observe a marked shift in this period. The congruence network (Figure 5b) shows a reconfiguration of discourse coalitions and a departure from the patterns observed in the previous two periods. The first coalition consists predominantly of local and regional government actors from both

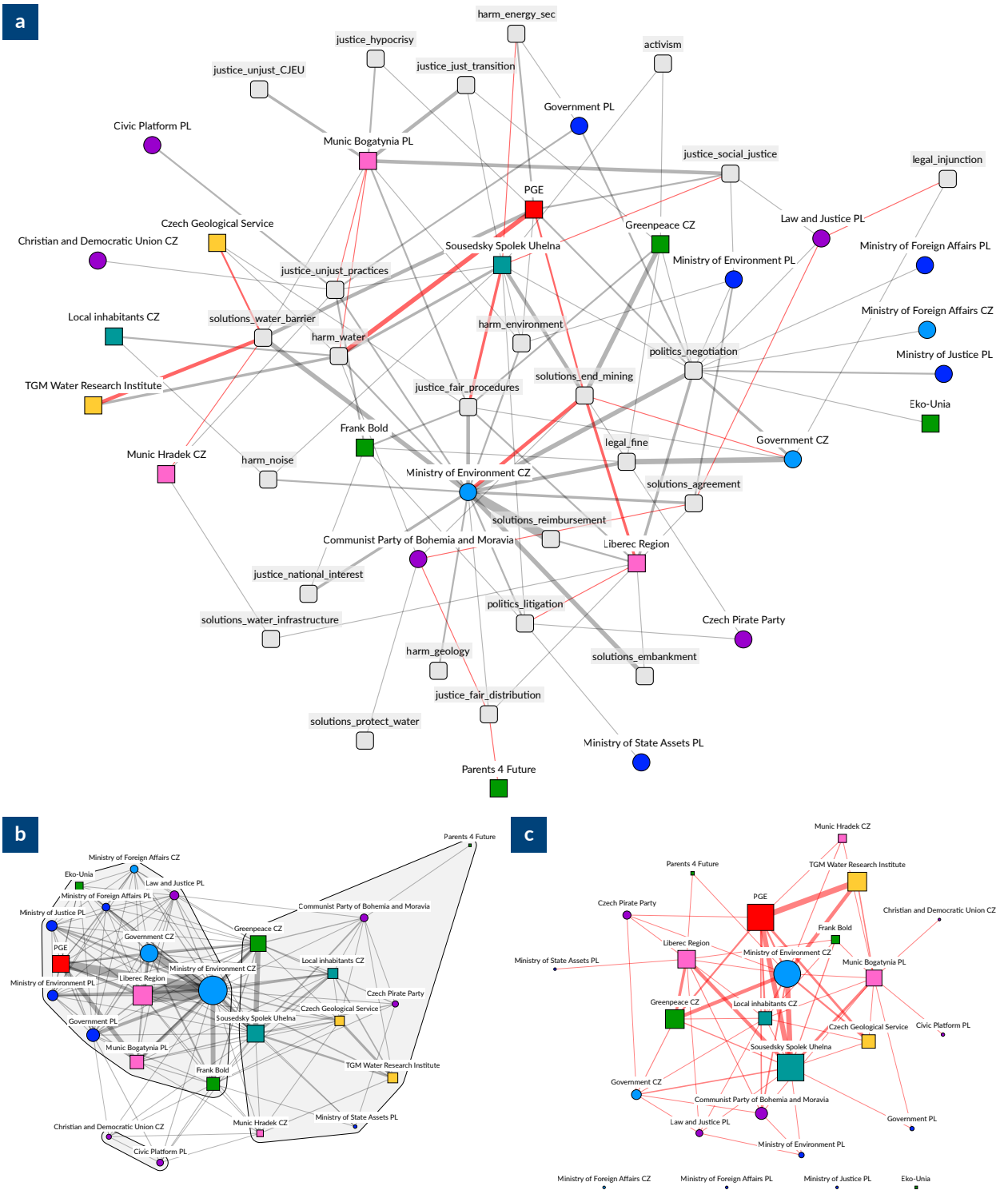

Figure 5. Period 3: (a) two-mode subtract network, (b) one-mode organization congruence network, and (c) one-mode organization conflict network.

Poland and Czechia. Only two strongly connected actors are not regional or national governments: PGE and the Czech environmental law firm Frank Bold. The second coalition comprises local-level actors, the national NGO Greenpeace, and expert organizations. Once again, supranational actors are completely absent during this period, despite the prominence of the debate over fines.

The fourth period (September 21–October 8, 2021, Figure 6a) was marked by the CJEU's decision to impose a €500,000 daily fine on Poland. This shifted the debate toward resolving the Czech–Polish dispute. The Czech Ministry of the Environment, the Liberec Region, and the Czech Ministry of Foreign Affairs pushed for structured negotiations, while the Polish Ministry of Climate and Environment signaled some willingness to engage. However, PGE and Niezależny Samorządny Związek Zawodowy Solidarność Turów continued to reject the ruling, framing it as unjust and harmful to energy security and employment.

As the negotiations took center stage, the Czech government actors prioritized financial compensation and technical measures, such as the underground water barrier. Meanwhile, Greenpeace CZ and Sousedský Spolek Uhelná opposed any settlement that allowed mining to continue, arguing that it failed to address long-term environmental damage.

On the Polish side, resistance remained strong, with PGE and mining unions rejecting compliance and emphasizing sovereignty and economic stability. While some Polish officials explored diplomatic avenues, immediate concessions remained unlikely. This period deepened the divisions within the Czech discourse, as government actors pursued negotiations while environmental groups demanded stricter enforcement. The growing focus on a diplomatic resolution set the stage for the final phase, in which the dispute would either be settled through an agreement or continue as a prolonged legal standoff.

The congruence network projection (Figure 6b) shows a continued split between local and national government actors on the one hand and all other actors on the other. Moreover, congruence is much stronger in this period, as manifested by the intensity of connections among these actors. Sousedský Spolek Uhelná, Greenpeace CZ, local inhabitants, and expert institutions were somewhat sidelined, as noted in the Section 4.2, due to the strong focus of local and national government actors on ongoing negotiations. As a result of this sidelining, there are fewer strong ties in the conflict network. Nevertheless, the conflict network (Figure 6c) remains similar to the previous period, with Greenpeace CZ and Sousedský Spolek Uhelná in disagreement with the Liberec Region and the Czech Ministry of the Environment.

The reorganization of actors into two coalitions—one composed of local and national government actors and the other containing the remaining actors—is also observed in this period. The first coalition includes both Polish and Czech actors, as in the previous period. Interestingly, the second coalition contains not only NGOs such as Greenpeace CZ and local actors like Sousedský Spolek Uhelná, but also the CJEU.

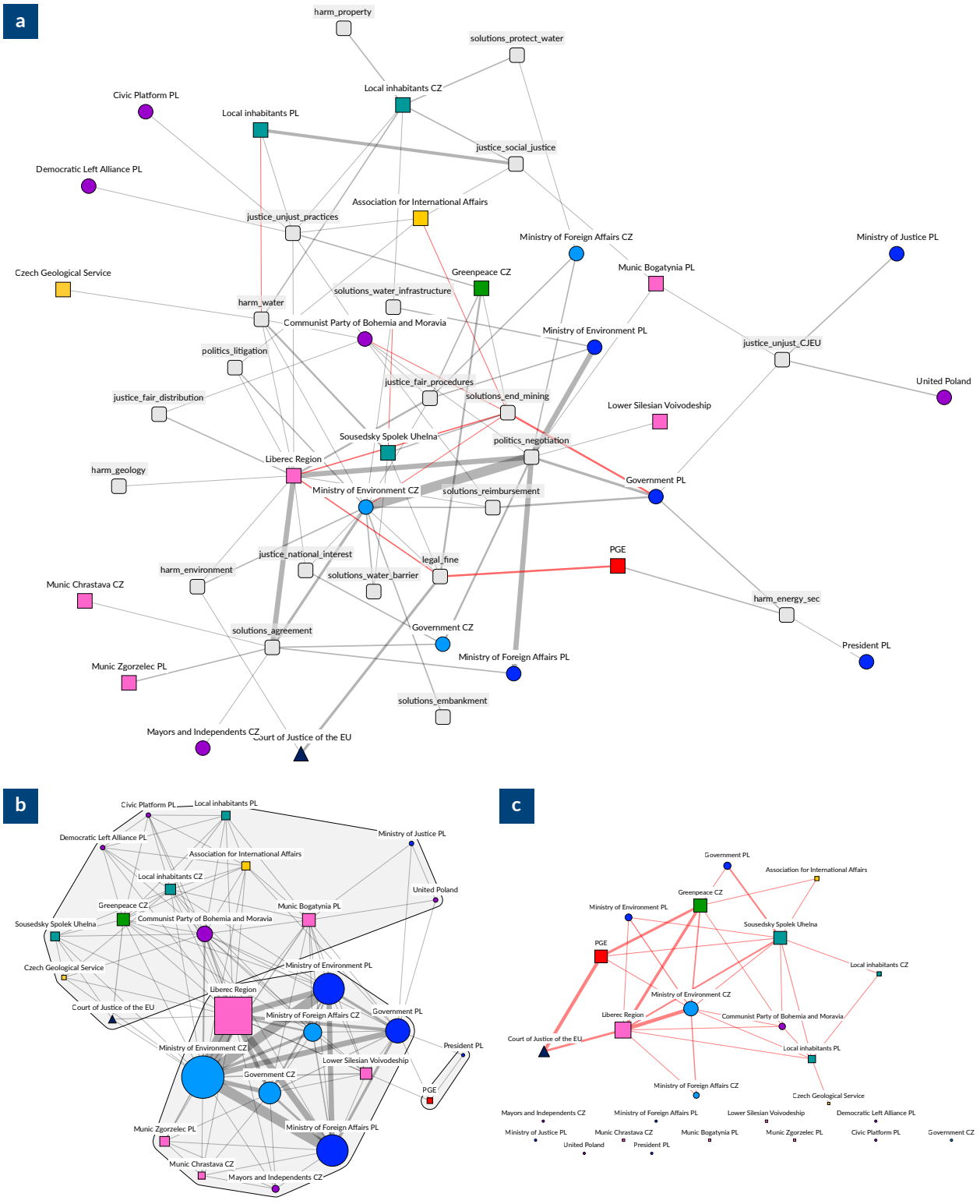

Figure 6. Period 4: (a) two-mode subtract network, (b) one-mode organization congruence network, and (c) one-mode organization conflict network.

The final, fifth period (October 9, 2021–February 3, 2022, Figure 7a) was dominated by negotiations. The Liberec Region, municipal authorities, and the Czech Ministry of Foreign Affairs pushed for a formal agreement to avoid a deadlock. Discussions focused almost entirely on reimbursement, sidelining broader environmental or technical solutions.

Greenpeace CZ and Sousedský Spolek Uhelná opposed the deal, arguing that the terms matter more than simply reaching an agreement. They advocated for EU legal action over bilateral compensation and continued to emphasize the harm to water, rejecting the underground water barrier in line with expert concerns. On the Polish side, PGE and the mining unions remained firm, defending Turów's economic importance. While some Polish officials engaged in talks, the focus remained on sovereignty and energy security rather than compliance.

This period solidifies divisions among the Czech actors: Government officials prioritized securing a deal, while environmental groups pushed for stricter enforcement, leaving unresolved tensions despite the eventual agreement.

The division is clearly manifested in both one-mode projections. Czech and Polish governments, ministries of environment, and the Liberec Region form a congruence community (Figure 7b) focused on resolving the issue. They are joined by other municipalities, creating a clear government coalition of regional and national actors. On the other side, a coalition of environmental organizations, local inhabitants, and Sousedský Spolek Uhelná is joined by expert institutions. Interestingly, this community also includes the Polish Ministry of Foreign Affairs, represented by a Polish ambassador in Czechia, who surprisingly criticized the Polish government and aligned with the claims of this coalition. The conflict network (Figure 7c) clearly reflects a more vigorous disagreement between local and environmental NGO actors on one side and local and national government actors on the other, most prominently, the Liberec Region.

From the structure of the coalitions, the same pattern observed in periods 3 and 4 is evident. One coalition consists of local and regional government actors, while the other comprises all the remaining actors. The Liberec Region and the Czech and Polish ministries and governments are the most prominent actors in the first coalition. The second coalition includes local actors, NGOs, and expert institutions. Two small deviations are notable: The European Commission is a member of the first coalition, likely due to its insistence on fines, and the previously mentioned Polish Ministry of Foreign Affairs aligns with this second coalition.

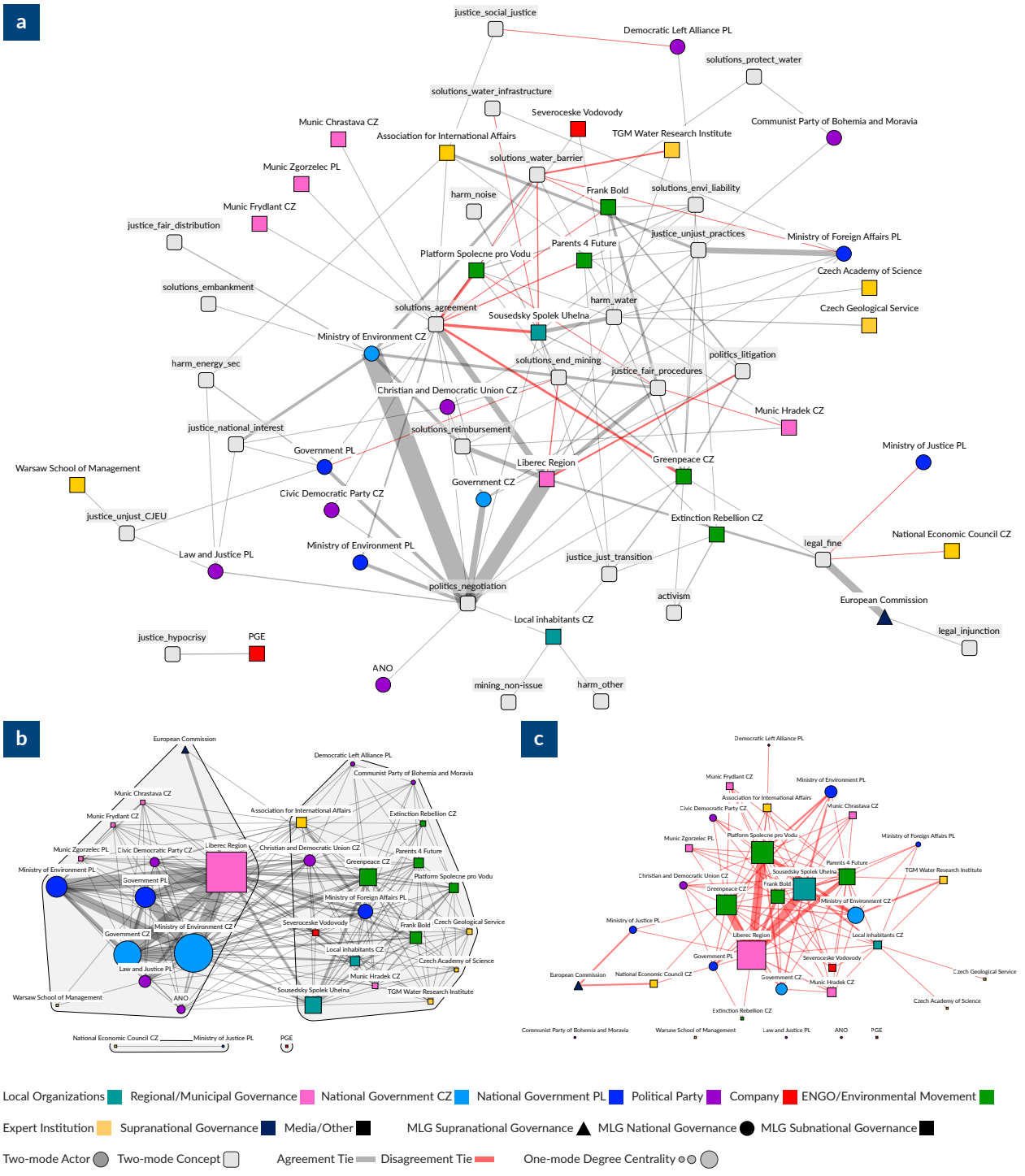

Figure 7. Period 5: (a) two-mode subtract network, (b) one-mode organization congruence network, and (c) one-mode organization conflict network.

5. Discussion and Conclusion

To start the discussion, we will briefly summarize our conclusions. In the first period (February 26–May 21, 2021), the conflict exhibited Type II (polycentric) MLG characteristics. Subnational state actors, particularly the Liberec Region, along with non-state actors, such as Greenpeace CZ, Sousedský Spolek Uhelná, and

affected local residents, emerged together as influential voices. Their communication was primarily driven by a clearly defined environmental agenda, fostering a discourse spanning multiple governance levels. Alternatively, this could be seen as a situation where Type I actors (national and subnational state actors) were joined by other subnational actors, creating a short period of Type II governance, with one notable exception—the peripheral status of supranational actors, especially the European Commission and the CJEU. In the second (May 22–June 7, 2021) and the third period (June 8–September 20, 2021), the governance structure shifted from Type II toward Type I (hierarchical). Following the CJEU's interim ruling, interactions between national governments and regional authorities were increasingly dominant, marginalizing NGOs and local actors. Two distinct coalitions emerged: one led by national and regional state authorities advocating diplomatic solutions and another comprising NGOs and local groups demanding EU law enforcement. In the final two periods (September 21, 2021–February 3, 2022), Type I governance further solidified. The CJEU's financial penalties strengthened intergovernmental negotiations, marginalizing subnational non-state and supranational actors. Network centrality confirms this dominance of state structures (both national and regional), with national state authorities ultimately signing a final agreement that emphasized financial compensation and the mitigation of harms from continuing mining. This effectively disregarded the demands of local actors and NGOs in the final stages. These observations align with published empirical research (Polko et al., 2024; Żuk & Żuk, 2022).

We identified three main contributions of the article that merit discussion. The first two provide an answer to the first research question, while the third addresses the second research question.

First, from the MLG perspective, the shift from Type II (Hooghe & Marks, 2003; Piattoni, 2009) to Type I is well in line with observations of the possible reversibility of MLG (Di Gregorio et al., 2019; Hale & Roger, 2013). We believe that this within-case shift further nuances the Type I/Type II distinction, showing that in specific cases, both types can coexist within a single case. First two periods demonstrated this well—the national and sub-national actors were joined by actors from other levels. Especially interesting is the fact that the gradual shift did not occur due to alterations in the institutional context. The formal competencies of the policy actors remained the same throughout the conflict. What changed instead were the discursive struggles and resulting positions of the actors toward the issue, observed through discourse coalitions. These changes over time also altered the extent to which we could see "the state unravelling."

Second, we posit that the recentralization of authority might be sector-specific. Czechia's energy sector is relatively centralized (Černoch, 2019), with strong incumbent energy companies (Černý & Ocelík, 2020) and deep cleavages in the governance of coal issues (Ocelík et al., 2019), making the return to Type I possibly easier than in other sectors. In line with the discourse-centered perspectives in which issue definition structures feasible policy responses (Hajer, 1995), our results partially suggest that Czech state actors could be more receptive to Polish arguments presenting Turów as a matter of Poland's energy security, strategic development, and social stability, because the Czech coal sector possibly faces similar challenges. However, confirmation of this mechanism requires additional and more focused research on the diffusion and acceptability of those arguments.

Third, understanding how the MLG governance evolved shows the utility of investigating both environmental policy networks in general and environmental discourse networks in particular. The network perspective shows clearly that institutional competencies may not mirror networked influence

(Papadopoulos et al., 2024; Tortola, 2017), as evidenced by the divergence between formal competencies and the informal influence of actors in the early phase (February 26–May 21, 2021). While the formal authority resided primarily with the Czech government, there was substantial informal influence from subnational state and non-state actors (Liberec Region, Greenpeace CZ, local associations). For example, citizen appeals highlighting governmental inaction and the failure to defend Czech interests increased the political costs of unresponsiveness and expanded the coalition's bargaining leverage.

In addition to the three main contributions of the article, we identify several observations that invite further research.

First, the role of the regional government—Liberec Region—should be highlighted. We posit that this subnational state actor was pivotal to the conflict dynamic: It positioned itself in line with the national government and was instrumental in the recentralization of power in later periods. Thanks to its presence in the negotiation process, the national government was ultimately able to circumvent local organizations, environmental NGOs, and expert institutions, while framing the regional government's involvement as a genuine representation of local actors. This dual role is evident in its centrality: Although highly connected, the Liberec Region ultimately sided with national government actors, pushing for an agreement and deflecting demands from local and non-governmental actors.

Despite limited de jure capacities, the local policy actors assembled an effective coalition by framing the dispute in terms salient to local residents (groundwater depletion), activating both national bodies that brought the case to the CJEU, as well as mobilizing environmental and climate activists, who attempted to build international partnerships and reach a broader platform. This resembles the boomerang effect (Keck & Sikkink, 1998), whereby subnational actors attempt to circumvent national actors and target supranational bodies, with a notable exception. In our case, discursive alignment of actors together with the CJEU's favorable decisions towards Czechia suggest that both national and supranational institutions were open to subnational requests, especially in the first and possibly also in the second phase. Sikkink describes such constellation as an "insider-outsider coalition" instead of the "boomerang effect" in her later work (Sikkink, 2005). We invite further investigation to evaluate the presence and the nature of this effect.

The next noteworthy observation is the discursive absence of the EU and its institutions in the Czech discourse. Although the MLG literature highlights the upward reallocation of authority to supranational bodies and the empowerment of non-state and subnational state actors, in our case the EU appears surprisingly absent. The CJEU's orders increased the Czech side's leverage; however, EU institutions were quickly sidelined by national state actors and did not seek to re-enter the dispute, despite its systemic importance. One plausible explanation is the technocratic framing of the case as a matter of Environmental Impact Assessment procedure and narrow technical fixes, which channeled resolution into intergovernmental bargaining. In any event, the EU's limited structural role here points to a dynamic within MLG that merits further exploration.

The case exhibits an interesting dilemma from the perspective of local actors and environmental NGOs. In Czechia, where climate skepticism remains relatively widespread at the political level (Ocelík, 2022), these actors appear to have adopted a pragmatic strategy in the early phase of the conflict. By foregrounding immediate, tangible harms such as groundwater depletion, they secured broader public and institutional support and thus leverage—a strategy observed in Czechia before (Černoch et al., 2019). In turn, the national

and subnational state institutions embraced this framing in this case—partly at the expense of international commitments and, in the case of the Ministry of the Environment, arguably its core purpose. This convergence produced a technocratic, locally grounded discourse centered on groundwater availability, aquifer recharge, and mining-related noise and light pollution. This narrowing of the problem definition in turn constrained the scope of deliberation. Technological fixes—above all, the construction of an underground water barrier, a water supply system, and financial compensation—came to dominate the later phases of the conflict and enabled national and regional authorities to sideline both domestic non-state actors (including expert bodies and environmental NGOs) as well as EU institutions. The consequences were particularly adverse for environmental NGOs and some local organizations. The initial tactical concession in framing became likely a strategic loss in the end, unlike in similar Czech cases before (Černoch et al., 2019). Unable to convert momentum into broader goals, such as ending or sharply curtailing coal extraction and combustion near the Czech border or building durable cross-border coalitions, they were confronted with a final agreement that effectively legitimized continued mining, with a narrowly anthropocentric focus on water availability, noise, and dust. Furthermore, future attempts to reopen the issue are likely to be deflected by reference to an already-concluded settlement. All this invites further in-depth investigation.

Lastly, the article did not address the political affinity of the actors involved in the conflict. In Czechia, the elections brought a notable shift in general political direction, with the cabinet of Andrej Babiš replaced by that of Petr Fiala. Our data do not suggest that this change of government had a major effect on discourse networks (period 4, immediately before, compared to period 5, after). The observed and discussed shifts occurred well before the elections instead. However, this observation should be elaborated further in future research.

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Conflict of Interests

The authors declare no conflict of interests.

Data Availability

The final network data are available on request.

LLMs Disclosure

The article used ChatGPT's free version for language editing and shortening parts of the text during the writing and review process. The authors did not use the model for any other task.

Supplementary Material

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

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