

Network analysis of the environmental education system in the Czech Republic

Final report prepared by a research team from the Department of Environmental Studies, Faculty of Social Studies, Masaryk University

Research supported by the Ministry of the Environment, Czech Republic

Authors: Yanhua Shi; Harald Waxenecker; Michal Medek; Jan Činčera; Miloslav Kolenatý; Valentina Vittoria Loru

November 27, 2025

Summary

This project applied a mixed qualitative and quantitative network approaches to analyse the environmental education (EE) system in the Czech Republic. We are interested in exploring: (1) How are policy actors and decision-making processes organized and coordinated in shaping the EE system over time? (2) How do key policy actors (organizations) interact with each other across these activities?

The NAS (Network of Action Situations) analytical framework (Chapter 2) is used to uncover key governance dynamics in shaping the EE transitions over time.

The SNA (Social Network Analysis) metrices (Chapter 3) is applied to identify the relational patterns among key policy actors within the current period.

Chapter 1: Methods and Data (Page 5 - 10)

This chapter describes the data sources and methodology, including semi-structured interviews, document analysis, and network surveys involving 50 organizations across five sectors. We also present the NAS analytical framework and SNA metrices applied in this study, making use of the collected primry and secondary data.

Chapter 2: Network of Action Situations (NAS) analysis (Page 11 – 23)

This chapter maps and analyses how interdependent decision-making processes (action situations) shape the EE governance system over three identified periods (approx. 35 years).

Key findings from this approach are summarized below:

The EE development in the Czech Republic has progressed from non-formal and grassroots origins to a conceptually and institutionally aligned polycentric governance system. Applying the NAS framework, we explored the evolving dynamics among key decision-making processes in shaping such transition, which was divided into three periods.

Period 1 (1990s): Civic coalition driving formal institutional changes

The grassroots origin from the 1960s to 1980s culminated in the formation of the NGO coalition Pavučina, which later became central in driving the institutionalization of environmental education in the late 1990s. The governance system involves four generic decision-making processes, with limited participation of organizations and rule-making mechanisms.

Period 2 (2000s): System expansion and emergence of rules and standards

EE governance expanded with the integration into formal educational system (via MŠMT) and regional EE development (supported by MŽP and later via regional governments). MŽP played a key coordinating role, while EECs and the scientific community began shaping EE quality, via educator training and early evaluation efforts.

Period 3 (2010s – now): emerging conceptual and institutional alignments, alongside with operational challenges

This period saw increased cross-sectoral conceptual and institutional alignments, which was largely accredited to the active involvement of MŽP, EECs, and scientific community in both formal and informal EE settings. There emerged more standards in qualifications, conceptual and methodological clarity, and evaluation practices.

Several gaps and associated leverage points for improvements were identified:

- The increasingly complex EE topics introducing barrier for qualified EE educators. Policy and financial support may be needed for enhancing the quality and professional development of EE educators, aligning with the evolving demands.
- Small organizations lacking capacity for certification, which calls for attention of fully linkage certification with state and regional funding distribution. Practices developed at the regional level may be insightful, such as the hybrid funding mechanism from the Liberec region.
- Teachers and youth organizations, which are key EE providers, could be more included in the rule-making and standard-setting processes
- RVP revision (2025) integrating EE learning outcomes and sustainability among key competences provides basis for assessing the implementation and outcomes of formal EE
- Potential bridging role of the youth organizations connecting educational, youth, and EE sectors

Chapter 3: Multiple Network Analysis (Page 24 – 31)

This chapter focuses on multiple relational ties among identified policy actors across five layers. This analysis complements our understanding of relational patterns of key policy actors at the latest governance period in Chapter 2. Key findings from this approach are summarized below:

The multiplex network of environmental-education interactions comprises 99 actors (organizations) in five distinct layers: information exchange, financial support, collaborative educational programming, policy-influencing activities, and membership ties. The multiplex network shows how the relatively sparse single-layer networks come together into a **cohesive whole**.

There are **23 distinct key actors** in the complete multiplex network: 12 NGOs, 7 governmental or public entities, one research institution, and 3 general nodes (like schools, firms, and museums). The most central nodes are MŽP, Pavučina, regional and local governments, schools, Lipka, Chaloupky, SEVER, local AOPK, MUNI, ČSOP, TEREZA and the scouts movement, among others.

There is a high level of **reciprocity (mutual ties) in multiple layers** among a core block of NGOs (Pavučina, Lipka, Chaloupky, SEVER, TEREZA, Toulcův dvůr and Nadace Partnerství). Such reciprocity is also observed within the public sector, centered on MŽP, AOPK and the national parks.

Insights to specific layers:

- The information-exchange layer has the most ties and shows a high-reciprocity block of at least 10 actors. In other words, every organization within that block names the others as consultation partners, resulting in a dense web of mutual ties. Such a pattern indicates strong two-way communication channels: members not only actively share knowledge but also regularly seek input from their peers and/or take part in events organized by the peers.
- The funding layer is rather sparse, where the European Union (EU), the Ministry of the Environment (MŽP), regional governments (Kraje), municipalities (Obec), and private-sector funders (Firmy) occupy the most central positions. It shows only a modest level of coordination (reciprocity).
- The policy-influencing layer is similarly sparse and centers on a core of government entities and NGOs, which are the key actor for decision-making in the EE system.
- The educational-programs layer is rather dense and is structured around government agencies and leading NGOs, working alongside schools, museums, national parks, and other types of education centres. The scientific community, maintains close ties with NGO hubs and central public bodies, integrating research into programme design. Schools occupy the most central position, underscoring that environmental education fundamentally builds on schools. Although schools are very central, the Ministry of Education (MŠMT) holds a relatively peripheral role.
- The membership layer includes 45 organizations linked through formal membership affiliations, hierarchical oversight, or administrative relationships. The NGO sector shows high interconnectedness.

Belief-related statements:

In addition, participants evaluated belief-related statements (Metz et al., 2019) that reflect common assumptions or conceptual frameworks about policy challenges, strategic choices, and evaluation criteria. These *beliefs* might influence how EE organizations coordinate, negotiate, and implement programs and policies.

These key findings were identified:

- Environmental education is seen first and foremost as a transformative practice that “helps develop knowledge, attitudes and skills that lead people to action.” They also emphasize the need for EE to build “broader competencies to tackle complex sustainability challenges.”
- There is strong support that “all those implementing EE should participate in strategic plans and decisions,” and most respondents feel their own goals are already well represented and impactful within the Czech EE system.
- While confidence in the current quality of Czech EE is high, there is equally robust support for making “evaluation and certification” key elements to ensure ongoing improvement.
- While the stakeholders reject a narrow, age-restricted framing of EE and disagree that “EE providers should prefer formal over informal learning”, the EE practice is focused on formal education with primaries in the spotlight.
- They dispute that current public funding for EE matches the country’s financial capacity, signalling that resources remain insufficient.
- Respondents largely reject the idea that “only certified EE providers should receive public funding,” opposing certification as the sole basis for support, and believe funding distribution may currently favour certain EE formats over others.
- Finally, they contest the notion that “the current EE system is resilient to political change,” highlighting how political instability hinders long-term planning and program continuity.

Supplementary materials for the social network analysis are provided in Page 34 – 44.

1 Methods and data

1.1. Participants identification

Table 1 presents an overview of participation of organizations in this project. The sampling frame comprised 45 pre-identified organizations and five additional respondents, yielding a total of 50 entities drawn from five sectors: non-governmental organizations (NGOs; $n = 22$, 44 %), public entities ($n = 11$, 22 %), government bodies ($n = 6$, 12 %), “other” actors ($n = 6$, 12 %; e.g., municipal associations or private firms), and scientific institutions ($n = 5$, 10 %).

Of these 50 organizations invited, 34 completed the semi-structured interviews, and 33 completed the survey (including the 5 additional respondents), yielding an overall response rate of 66%. The patterns suggest that public entities and NGOs were most responsive, whereas smaller representation was observed among governmental and other actors.

The sampling strategy was not designed to include all key players in the field, but rather to ensure representation across a range of policy interests and governance activities. The list of 22 NGOs was curated by project team members with long-term experience in the field and reflects those considered to be particularly influential. To capture diversity, the sample included one representative each for regional governments (*Kraje Liberecký*), private firms, museums, and freelancers. However, local governments (*Obec*), teachers, forest pedagogy educators (foresters) and church organizations were not represented in the final sample.

In addition to these 50 entities, respondents named a further 49 distinct actors in the survey, which will be incorporated into the complex network analyses (Chapter 3) to capture the full scope of the relational patterns in the environmental-education field. A detailed list of all 99 actors can be found in the supplementary materials.

Table 1: Participation in the Environmental-Education Survey and Interview by Organization Type

Node type	Initial universe	Interview	Survey	Participation rate (survey)	Additional actors	Total universe
Government	6	4	2	33%	2	8
Public entity	11	9	10	71%	9	20
NGO	22	16	16	60%	23	45
Science	5	4	3	60%	5	10
Others	6	1	2	30%	10	16
Subtotal	50	34	33	66%	49	99

1.2. Data collection

1.2.1 Semi-structured interview and document analysis

The semi-structured interview explored the decision-making processes of identified key organizations in six pre-defined ASs, drawing on the notion of governance function, understood as generic tasks of governance, including production and provision of public goods and services, rule-making, monitoring, conflict resolution, financing, among others (McGinnis, 2011). Within each AS, we focused on the involved actors, interactions, and outcomes (Kimmich et al., 2022). Within the context of the Czech EE system, we identified the following ASs based on interviews, along with initial consultation with team members who have decades of experience in the field, as well as the document analysis. These ASs includes:

- AS1 Production and provision of EE programs and services
- AS2 Conceptual and methodological development
- AS3 Policymaking
- AS4 Funding
- AS5 Qualification
- AS6 Evaluation

A thematic coding analysis was implemented for the NAS analysis shown in Chapter 2.

1.2.2 Survey analysis

Survey participants were asked to report their **interactions** with other actors across four distinct domains—information exchange, financial support, collaborative educational programming, and policy-influencing activities—in order to construct a multiplex network of environmental-education interactions. Formal membership

and hierarchical ties—such as umbrella-organization affiliations—were coded as a fifth layer, using information sourced from the respective organizations' websites.

In addition, survey participants were asked about **belief-related statements**. These *beliefs* (Metz et al. 2019)¹ represent shared understandings and assumptions that guide how organizations interpret policy challenges, select strategies, and evaluate outcomes related to the action situations. In the context of environmental education, mapping this belief system is important because it shapes how actors coordinate, negotiate, and ultimately implement programs and policies across multiple arenas.

The survey comprises 22 statements spanning general perspectives on EE, program implementation, policy positions, funding arrangements, and evaluation/certification. Respondents indicate their level of agreement or disagreement with each statement.

1.3 Methods – network analysis

Below we present two network approaches – namely, the Network of Action Situations (NAS) and Social Network Analysis (SNA) – used in this study.

1.3.1 Network of Action Situations (NAS)

NAS is a relational extension of the Institutional Analysis and Development (IAD) framework, that was developed in the 1990s by the Nobel Prize Laureate Elinor Ostrom to study sustainability and collective action of natural resource governance (Ostrom, 1990; Ostrom et al., 1994). The IAD framework has later become popular in analyzing decision-making and choices in various empirical settings (Cole, 2014; Cumming et al., 2020; McGinnis, 2019; Ostrom, 2010). The key analytical unit is Action Situations (ASs), which can be broadly understood as activities, events, or social spaces where individuals interact and make strategic interactions. Their choices are constrained by a set of biophysical and social-institutional contexts, as well as the feedback from the outcomes produced by such interactions.

Instead of focusing on individual AS, the NAS approach adopts a structural perspective, recognizing how multiple decision-making processes are interconnected in jointly shaping governance outcomes (Kimmich, 2013; McGinnis, 2011; Pahl-Wostl et al., 2010; Sendzimir et al., 2010). NAS is often visualized as a box-and-arrow diagram and analyzed qualitatively to (1) unpack key working components of delineated ASs, including involved actors, institutions, interactions, and outcomes; and (2) analyze AS interdependencies, e.g., if and how the outcomes of one may affect the inputs of the other (McGinnis, 2011). These influences are then captured as AS ties, formalized into *institutional linkage*, representing formal or informal rules, e.g., standards, norms, policies; *informational linkage*, representing flows of information, knowledge or financial resources; or *biophysical transactions* (which is beyond the scope of our analysis) (Kimmich, 2013; Kimmich and Villamayor-Tomas, 2019; Tan et al., 2023). Also, undirected ties exist where two ASs share common actors, a theme that is common in the policy network research (Angst et al., 2022; Berardo and Lubell, 2019; Lubell, 2013; Morrison et al., 2023).

Recent NAS research has advanced formalizing its analytical procedures (Baldwin et al., 2023; Kimmich et al., 2022; Schlüter et al., 2019), with a recent integration of a temporal dimension (Shi et al., 2025). In this study, we adopt a longitudinal approach based on the NAS framework (Méndez et al., 2023; Möck et al., 2019) to examine key governance dynamics in driving the EE system changes across three identified governance periods (results see Chapter 2). For each period, the NAS approach operationalizes the governance system as a set of interconnected ASs, allowing analysis of (1) micro-level internal dynamics of each AS (e.g., exploring the incentive structure of actors' interactions); and (2) macro-level structural connections among ASs (e.g., how influences from one AS propagates through the network) (Shi et al., under review). The NAS analysis draws on the interview and document analysis as outlined in Chapter 1.2.

1.3.2 Social network analysis (SNA)

Social Network Analysis (SNA) is a methodological approach used to study the patterns of relationships—called edges or ties—between different actors, such as individuals, organizations, or institutions (Prell, 2011; Scott, 2017; Wasserman and Faust, 1994). It combines concepts from graph theory, matrix algebra, and statistics to understand how these relational patterns affect outcomes at both the individual and system level. The descriptive

¹ Following the approach in Metz et al. (2019: 612), these statements “...are termed “beliefs” in the terminology of the Advocacy Coalition Framework (Sabatier 1999); other scholars refer to “mental models” (Pahl-Wostl 2007) or “macroculture”, defined as norms and values shared across actors (Jones et al. 1997; Robins et al. 2011).

network analysis includes metrics like centrality, density, or clustering, which help to characterize the overall structure of the network. Furthermore, the blockmodel allows for a more detailed analysis of internal cohesive subgroups or 'blocks'.

A network can be understood as a set of nodes (actors) connected by relations (ties or edges). In this study, the network comprises 99 nodes, each representing an organization active in the field of environmental education (EE) in the Czech Republic. All nodes belong to the same class, meaning they are social actors operating within the EE system. This structure constitutes a *one-mode network*, where connections occur between actors of the same type.

Relational data were derived from two principal sources: (1) survey responses that captured reported interactions among actors, and (2) publicly available documents identifying formal affiliations and memberships. The collected data describe five distinct domains of interaction: information exchange, funding, educational programmes, policy influence, and membership in umbrella organizations (**Figure 1**). It should be noted that the resulting networks reflect the scope and composition of the sample as well as the survey response rate, meaning that observed structures depend on the actors included and the completeness of their reported interactions.

All relations are *directed*, represented in the network as arrows. This directionality indicates the flow of a relationship: for example, if actor A reports a collaboration with actor B, a directed tie ($A \rightarrow B$) is created. In this case, actor A has an outgoing tie, and actor B has an incoming tie. When both actors report a tie toward each other ($A \leftrightarrow B$), the relationship is reciprocal, signifying mutual recognition of collaboration. For membership relations, the arrow direction goes from the member organization to the umbrella or coordinating organization.

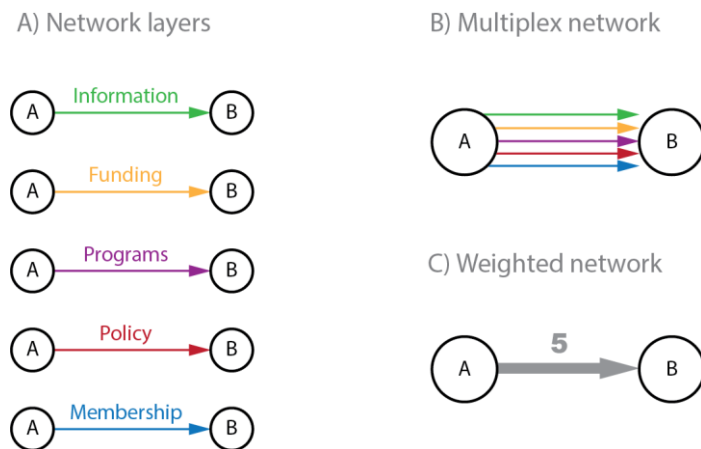


Figure 1: Conceptual representation of networks: A) Five domains of interaction represented as distinct network layers. B) Multiplex network, where multiple types of ties connect the same pair of actors. C) Weighted network, in which all ties between two actors are aggregated into a single edge whose weight reflects the number of relational layers shared.

Each type of interaction forms a separate *network layer*, representing a single type of relational activity, such as sharing information, exchanging funds, co-delivering programmes, shaping policy, or maintaining formal membership links. The same set of actors appears across all layers, but the structure of their ties varies according to the relational context.

When these layers are combined, they form a *multiplex network*: a structure in which the same set of nodes is connected by multiple, context-specific types of ties, each corresponding to one of the five domains described above. Thus, a pair of actors may share up to five distinct ties, each representing a different form of collaboration. These multiple ties can also be aggregated into *weighted ties*, where the weight indicates how many distinct types of relationships link the two actors.

In summary, the EE system is conceptualized as a directed, one-mode, multilayer and multiplex network, in which all nodes represent active organizations within the field. The direction of ties captures the flow of interactions between actors, while the types of ties are represented either as distinct network layers or as an aggregated multiplex structure. Multiplexity can also be expressed in the form of a weighted network, where the weight of

each tie reflects the number of relational domains connecting two actors. This approach enables a more comprehensive analysis of the Czech environmental-education field and highlights how diverse forms of interaction jointly shape its overall structure and functioning.

Descriptive network metrics

As defined above, we work with directed one-mode networks, where all nodes represent actors within the EE system and ties between them reflect distinct interactions. To characterize and understand such networks, several network metrics are used to capture structural properties, node positions, and patterns of interaction. These include:

Degree centrality refers to the number of direct ties a node has within a network. In directed networks, three distinct types of degree centrality are used to capture the directionality of ties:

- **In-degree:** The number of incoming relations to a node, indicating how many others are directing ties toward it.
- **Out-degree:** The number of outgoing connections from a node, reflecting how actively it reaches out to others.
- **All-degree (or total degree):** The sum of in-degree and out-degree, representing the overall connectivity of a node.

Weighted degree extends the concept of degree centrality by considering not only the number of ties a node has, but also the strength or intensity of those ties. The weighted degree of a node is the sum of the weights of all its ties. In directed networks, this can be further divided into weighted in-degree (the total weight of incoming ties) and weighted out-degree (the total weight of outgoing ties).

Mean degree represents the average number of ties per node in a network. It is calculated by summing the degree values (either in-degree, out-degree, or total degree) of all nodes and dividing this sum by the total number of nodes in the network.

Density is a measure of how many ties are present in a network relative to the maximum possible number of ties. It quantifies the overall level of connectivity among nodes.

Component refers to a subgroup of nodes within a network where every node is connected to every other node by some path, and no connections exist to nodes outside the component. In other words, components are subgroups within the network which are disconnected from each other.

Isolate refers to a node in a network that has no connections to any other node. In technical terms, an isolate has a degree of zero.

Reciprocity means that directed ties in a network are mutual: that is, whether a connection from node A to node B is reciprocated by a connection from B to A.

Block model

A block model in network analysis is a way to reduce a complex graph into a smaller “meta-network” of equivalence classes (or “blocks”) whose members share similar patterns of ties (Doreian et al., 2004; Žiberna, 2007). Rather than focusing on individual nodes, a block model groups actors into positions based on structural or regular equivalence, where actors in the same block tend to connect to the other blocks in similar ways. Technically, a blockmodel partitions the set of actors and their relations into a smaller set of equivalence classes and corresponding blocks. The resulting image matrix provides an abstract representation of the network, showing the presence, absence, or density of connections between blocks.

Figure 2 illustrates the principle of block modeling: on the left, the directed network shows three such blocks. Actors within Block 1 are densely and reciprocally connected, forming a cohesive subgroup. Block 2 displays strong internal connectivity, while Block 3, with few and mostly one-way ties, represents a peripheral segment. On the right, the corresponding adjacency matrix is reordered to highlight these groups: submatrices along the diagonal indicate within-block ties, whereas off-diagonal areas show (often sparser) inter-block connections.

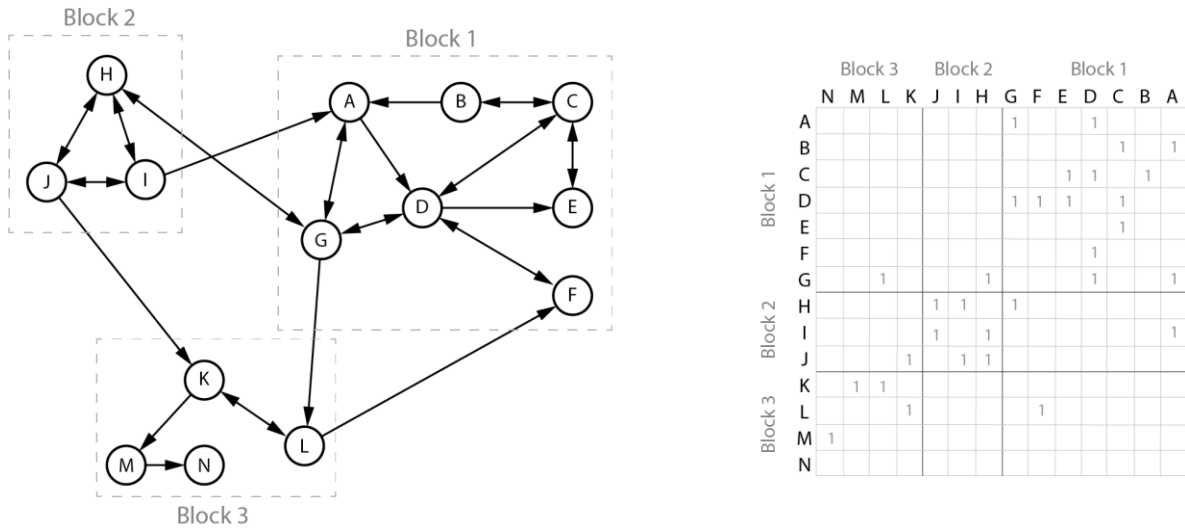


Figure 2: Example of a directed network and its corresponding blockmodel matrix

In practical terms, blockmodeling transforms a detailed and often dense network into a smaller, interpretable structure that reveals the main relational patterns, such as hierarchical configurations, role systems, or cohesive subgroups. This approach is widely used in the analysis of organizational or intergroup networks, where the goal is to identify clusters of actors that play similar structural roles and to characterize how these positions interact within the broader system.

2. Network of Action Situations (NAS) analysis

In this chapter, we map and analyze the NAS diagrams across three identified governance periods. Due to space limitations, we will not go into details of each AS and connection; rather focusing on key within and cross-AS dynamics that prompt system reconfiguration over time.

2.1 Period 1 (1990s): civic coalitions driving formal institutional changes

We define the first period as the 1990s. Development from the 1960s – 1980s provided important contexts for early EE in the country. First, there has been a long-standing social tradition around nature and ecological conservation, which contributed to early conceptualization of ecological education (Kvasničková, 1985). Second, the Brontosaurus movement, originally organized during the communist regime as the youth leisure activities, evolved into a nationwide movement. Following the fall of the communist regime in 1989, these self-organized civic initiatives translated into institutional development. Several environmental education centers (EECs), that can be understood broadly as organizations providing ESE programs and services (Činčera, 2013), were established in the early 1990s. Approximately half of them were founded by former Brontosaurus NGOs and later formed into a coalitional organization. Public EECs were later established by local and regional governments, reflecting a region-oriented EE development strategy that became more visible in Period 2.

Cross-AS feedback between policymaking and discursive development

The governance system in Period 1 can be represented as four linked ASs (**Figure 3. a**). Key dynamics emerged primarily through interactions between AS2 and AS3 (as highlighted by *the bold green tie*). These cross-AS connections ultimately produced institutional outcomes within AS3, which subsequently influenced EE practices (AS1) and funding mechanism (AS4) at the operational-level.

The initial driver of systemic change came from the conceptual and discursive outputs in the early 1990s, co-produced by a few of state agencies, NGOs, and scientific community (CENIA, 2005). Specifically, the Rainbow Program (1990), which framed the post-communist strategies of environmental transformation, explicitly referenced environmental education and outlined its development during the decade. The program also envisaged the adoption of the Nature and Landscape Protection Act (1992), which formally recognized the role of environmental education within nature conservation policy.

However, by the mid-1990s, EE was not more explicitly incorporated into and/or supported by the state policy. In response, NGOs, many were members of the Brontosaurus movement, established the umbrella organization of SSEV Pavučina in 1996 (*bold green tie from AS3 to AS2*). This collective action reflected the strong social capital cultivated through decades of civic engagement in the Czech EE development. Pavučina has since become a key policy actor advocating for policy and institutional support for EE development.

Civic advocacy efforts, together with international and EU policy influences (e.g., the EU Council Directive, 1990; the Aarhus Convention, 1998), culminated in the adoption of Act No. 123/1998 Coll. Right to Environmental Information (*bold green tie from AS2 to AS3*). This fundamental legislation explicitly defined the roles of key governmental institutions, particularly MŽP, MŠMT, and regional governments, in supporting the EE development.

Emerging funding mechanism and ESE practices

Within AS3, the 123/1998 Act emphasized regional development as a core principle of EE policy. Promoted by MŽP and supported by Pavučina, this strategy aimed to ensure nationwide EE coverage through a decentralized but coordinated network of regional EECs. Its operationalization incentivized the creation of state and regional funding structures, the implementation of which became more visible in the following period (the 2000s).

Alongside state initiatives, NGOs established foundations (e.g., the short-lived foundation EVA and Nadace Partnerství) to coordinate non-governmental fundraising (AS4.2). Together, these grant opportunities contributed to the initial expansion of EE providers and activities (*green tie from AS4 to AS1*). During this period, EE programs tend to be broad, covering multiple topics within a single program (AS1). Such practice aimed to provide the “whole package” of EE, since no or minimal integration of EE to the formal education system existed at the period.

Summary of governance dynamics

Overall, governance dynamics in Period 1 were characterized by ifeedback between AS2 and AS3: civic mobilization were stimulated in response to weak policy support, which in turn generated the advocacy pressure and conceptual resources necessary for institutional change. As a result, the legislative framework, 123/1998 Act, was adopted. EE has since then embedded within the state governance structure, providing the institutional foundation for later system expansion in Period 2.

Figure 3: The EE governance system in Period 1 (a), Period 2 (b), Period 3 (c). Each box represents an AS. The dashed rectangle groups ASs of the same type. Within each AS, we capture the involved actors, their interactions, and outcomes. These outcomes are then translated into influences across ASs, shown as flows of information (directed blue link) or institutions (directed red link). Key within-AS dynamics are highlighted in bold text inside each box, while cross-AS dynamics are emphasized with bolded ties.

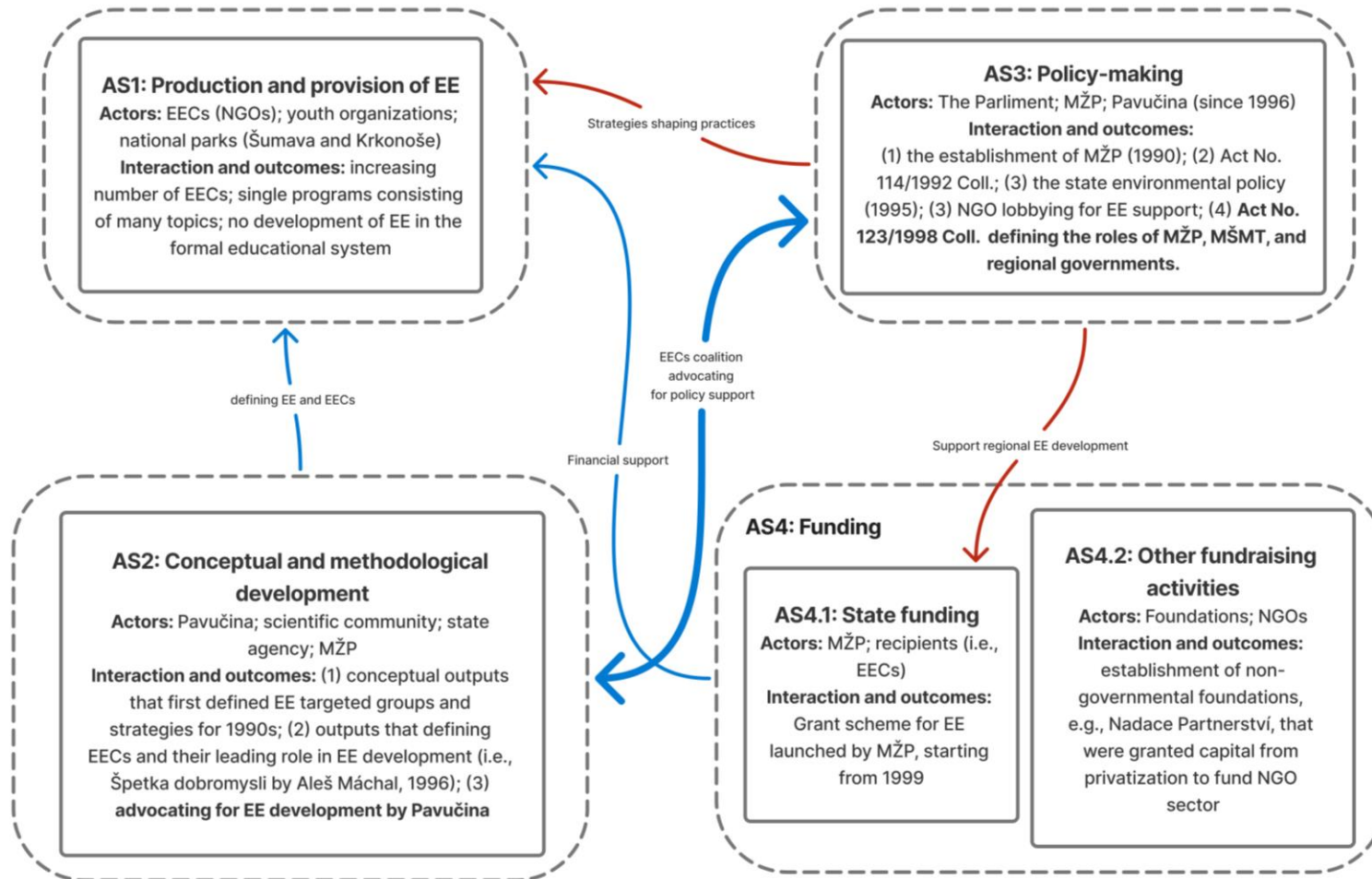


Figure 3. a: Period 1 (1990s)

2.2 Period 2 (2000s): system expansion and emerging standards in the EE system

The governance system in Period 2 expanded both structurally and functionally (**Figure 3. b**). The number of linked ASs increased from four to six, and most situations became internally differentiated into sub-ASs, reflecting the emergence of more specialized governance activities. The situations include:

- AS1: Production and provision of formal (AS1.1) and non-formal/informal EE (AS1.2)
- AS2: Conceptual and methodological development
- AS3: Policymaking by MŽP (AS3.1), MŠMT (AS3.2), and regional governments (AS3.3)
- AS4: Funding from the state and the EU (AS4.1), regional governments (AS4.3), alongside other fundraising activities (AS4.2)
- AS5: Training for teachers (AS5.1) and environmental educators (AS5.2)
- AS6: Evaluation of EE programs

Institutional differentiation and influences via cross-AS linkages

The institutional responsibility defined by the Act No. 123/1998 materialized during this period through three distinct policymaking processes (AS3.1 – AS3.3). Together, they produce formal rules and strategic priorities that directly shape ESE delivery (AS1), funding (AS4), and qualifications (AS5).

First of all, MŽP took a central coordinating role in state-level EE strategic planning. As such, in 2000, the ministry released the state EE program and accompanying three-year action plans, outlining EE activities to be supported until 2015. The state program was developed in collaboration with EECs (i.e., Pavučina) and other ministries. The outlined ESE priorities directly shaped the ESE delivery (*bold red tie from AS3.1 to AS1*) and informed the state-managed (e.g., National Network of Environmental Education Centers) and EU (e.g., Structural Funds) funding frameworks (*red tie from AS3.1 to AS4.1*). These more consolidated financial resources were channeled to provide direct support to ESE programs, EECs development and teacher training (*blue ties from AS4.1 to AS1.1 and AS5.1*).

Secondly, MŠMT's primary focus was the integration of EE into the formal education system (AS3.2). Elements of formal EE existed mostly through the compulsory subject Ecology (Ekologie) in the first grade of vocational schools in early 2000s. A major shift occurred with the introduction of the new curricula (RVP – Framework Education Program) in 2005. Coordinated by NPI, EE was institutionalized as one of the cross-cutting topics in school curricula (*bold red tie from AS3.2 to AS1.1*).

Therefore, a key outcome from AS3.2 was the distinction between formal EE (AS1.1) and non-formal and informal EE (AS1.2) in Period 2 reflecting methodological development in all the three areas. We define formal EE as the EE activities integrated into school curricula, which can be delivered by teachers outsourced to external providers such as EECs. Non-formal EE refers to organized and structured educational activities that occur outside the formal school curricula, such as the summer camps organized by EECs or youth organizations. In-formal EE, by contrast, involves voluntary, unstructured learning that take place in everyday contexts, such as self-directed engagement with educational trials or exhibitions from national parks, visitor centers, or museums.

The RVP implementation also created a need for qualified teachers, prompting MŠMT to accredit EECs and public institutions as training providers (*red tie from AS3.2 to AS5.1*). This demonstrated a dynamic in which rule-making were centralized by MŠMT (and its directly managed organization – NPI), but operational implementations remained dispersed among EECs and other actors.

Last but not the least, as part of the national strategy, regional governments were in charge of developing regional EE conceptions and strategies (AS3.3). Supported by MŽP, EECs organized regional EE conferences and many EECs began to establish relationships with regional governments (*red tie from AS3.3 to AS1*). From the late 2000s onward, regional coverage became a criterion within regional grant schemes (AS4.3), incentivizing EECs to ensure geographical availability of EE programs. Despite initial reluctance, regions gradually engaged with EE development, albeit to varying extent, marking the early emergence of a decentralized, polycentric governance structure. However, the specific drivers shaping regional development lie beyond this study's scope, but warrant further research given their crucial influences in the EE governance system.

Emergence of qualification standards and trainings

In parallel, qualification frameworks emerged (AS5) to standardize the EE professions. These standard-setting processes directly influenced the quality and scope of EE programs and training.

First of all, teachers can receive pre-service and in-service training for integrating EE in their teaching activities (AS5.1). Several standards setting processes were identified. First, MŠMT established the role of ESE school coordinators in 2000. Second, to align with the curricular reform, a 250-hour standardized training program was established in 2005. Later in 2008, the coordinator role and specialized training standard were merged to ensure alignment. These standards were primarily developed by NPI with limited involvement from external organizations, e.g., EECs. MŠMT further accredited organizations, including EECs and public institutions (e.g., national parks) as training providers. Funding for these activities came largely from MŽP (*blue tie from AS4.1 to AS5.1*). This indicated the central role of MŠMT in the rule-making processes within formal EE sector, while operational activities (program delivery, training, and funding) remained implemented by primarily EECs and other organizations (*red tie from AS3.2 to AS5.1 to AS1.1*).

Furthermore, training for non-school EE educators (AS5.2) were primarily organized by on internal capacities of organizations providing EE programs and services. Environmental educators in EE centers typically relied on internal capacity building. SSEV Pavučina sought to professionalize this by organizing standardized training programs – for instance, training programs for the senior lecturers who shall then deliver training to junior ones.

Knowledge outputs and debate over evaluations

Conceptual and methodological development (AS2) intensified during this period. Two major trends emerged.

First, EECs, particularly via SSEV Pavučina, supported formal EE (AS1.1) and teacher training (AS5.1) by publishing teaching materials for cross-cutting topics and launching the professional journal *Bedrník* to facilitate knowledge exchange among educators.

Second, the scientific community began to engage more actively, by producing quality criteria, launching the academic journal *Envigogika*, and initiating research on EE evaluation. The latter opened up the field debate over the lack of evaluation practices. This work began to address concerns about the lack of standardized evaluation mechanisms (AS6), as most EE providers relied on internal, informal evaluations. However, this further led to heated debate in the field over the necessity and effectiveness of formalized evaluations.

Period 2 marked a transition from the civic-driven institutional changes in Period 1 toward a state-led system expansion and standardization. Governance dynamics were primarily driven by policy-to-practice interactions, where specialized policymaking (AS3) and consolidated funding streams (AS4) shaped both ESE delivery (AS1) – in particular the disaggregation into the formal EE provision – and professional qualifications (AS5). At the same time, conceptual and emerging evaluation efforts by EECs and scientific community (AS2, AS6) provided informational feedback that influenced implementation. MŽP and regional governments (albeit with regional variation) began to develop close relationships with EECs in developing state and regional strategies, programs, and conceptions, via flows of financial resources. In contrast, MŠMT (and its directly managed institute NPI) operated more independently within the formal ESE sector: they led formal rule-making, but loosely connected with the broader community.

A shared conception of EE has not yet emerged in this period. NGOs remained marginal in standard-setting processes despite being central providers of ESE programs and training. Meanwhile, the scientific community began to gain more visibility through its contributions to evaluation and quality debates.

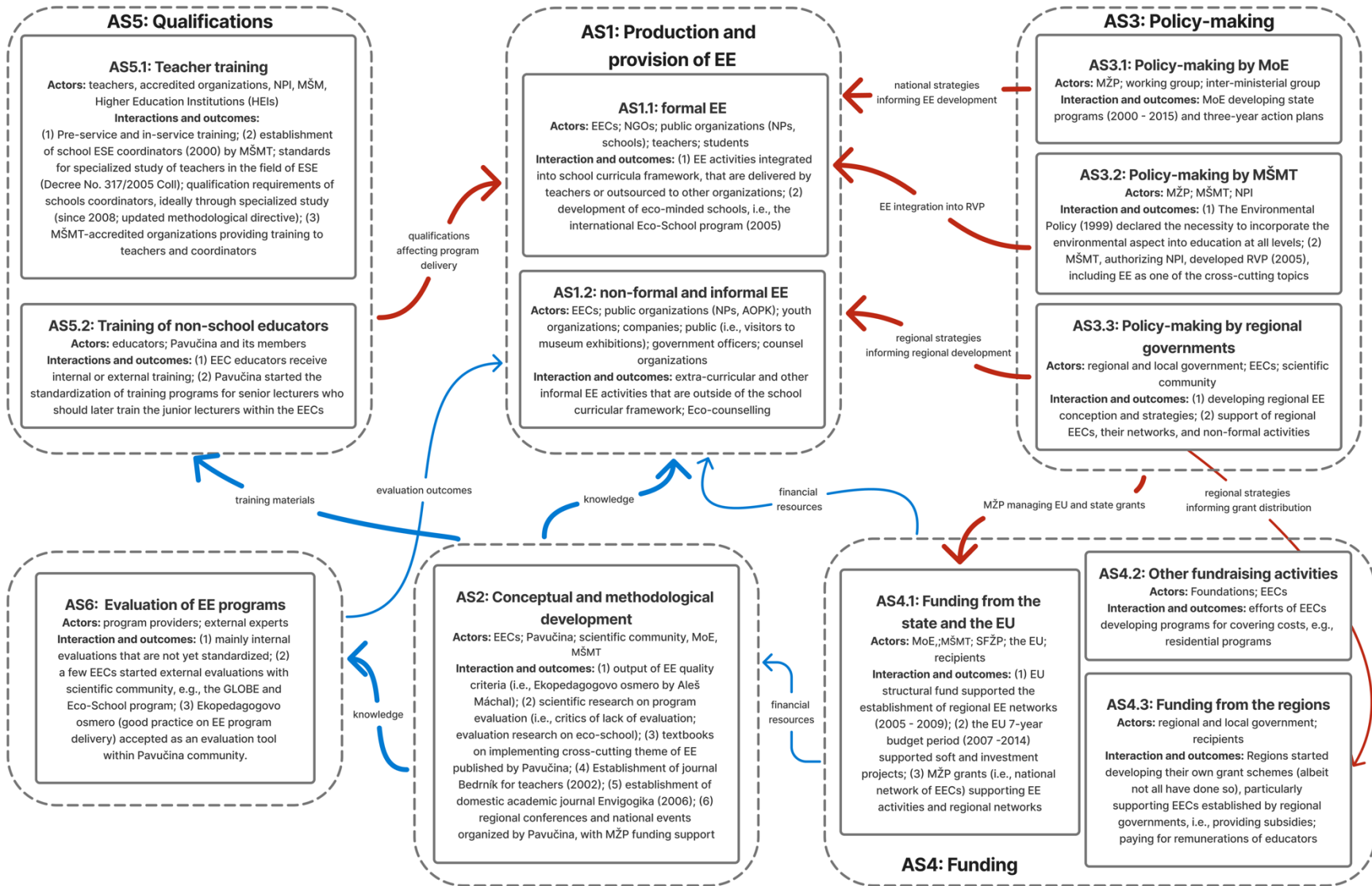


Figure 3. b: Peiod 2 (2010s)

2.3 Period 3 (2010s – present): conceptual and institutional alignment across sectors

Period 3 is characterized by the emergence of three new sub-ASs related to qualifications (AS5) and evaluation (AS6), alongside a marked increase in the influences of conceptual development (AS2) on multiple governance activities (**Figure 3. c**). Together, these multi-level system dynamics reflect a gradual shift toward conceptual alignment within the EE community, which subsequently enabled institutional fit across governmental authorities.

Conceptual alignment informed standards and funding decisions

The key dynamics in this period was triggered by a growing financial demand of the expanded EE system and limited public funding. The funding constraint prompted the MŽP initiative to establish a shared understanding of what constitutes EE, which could guide the distribution of the scarce financial resources. In response, a multi-stakeholder working group, comprising EECs, MŽP, MŠMT, and the scientific community, produced the key conceptual document, defining the objectives and goals of EE in the Czech Republic (AS2).

This conceptual development further informed several developments.

First, the objectives and indicators became part of the criteria for state grant evaluation (*blue tie from AS2 to AS4.1*). MoE also established a website listing EECs it acknowledged. Second, it informed the creation of program evaluation guidelines, developed mainly by EECs and scientific community (*blue tie from AS2 to AS6.1*). Lastly, this framework guided the development of the certification system for ESE providers (*bold blue tie from AS2 to AS5.3*). This process involved a working group consisting of EECs, MoE, and scientific community, coordinated by Pavučina and authorized by MoE. Since 2023, the certification began to be linked with the EU and some regional funding decisions (*blue ties from AS5.3 to AS4.1 and AS4.3*).

In parallel, within the formal educational sector, NPI published the recommended expected outcomes, methodological support for teaching cross-cutting topics, with inputs from EECs and scientific community. The two aligned conceptual developments, via co-participation of especially EECs and scientific community, reflected a turning point in conceptual convergence between the formal education sector and the broader EE community.

At the same time, fiscal limitations prompted a second, more pragmatic system response, that is, diversification of funding sources (AS4.2). Particularly among non-public EECs, this included revenue generation through service provision, e.g., accommodation and catering, as well as emerging partnerships with the private sector. Despite these developments, private-sector involvement remains minimal.

Perceived advantages and barriers of certification

Currently, there are 25 certified EE organizations. Reported benefits include: an external evaluation tool to systematically look into the strategic planning and organizational operations; increased competitiveness in grant applications; promotion of certification aligns with the evidence-based policy logic that request funding from the regional government.

However, not all organizations view certification as necessary or relevant. Some organizations, particularly those outside the network of EECs, perceive “...the certification as something that was closer to eco-centers, and we didn’t want to put energy into that, so that we weren’t splitting the focus.”. Similarly, public organizations that do not depend on competitive funding often do not see the need for certification, reinforcing the idea, also expressed by EECs, that access to funding is a primary motivation for pursuing certification.

Additionally, certification is considered resource demanding, posing a barrier especially for small organizations with limited capacity. There is concern that linking public funding more closely with certification may marginalize non-certified providers who still make meaningful contributions, such as those operating school gardens.

In response to these challenges, the Liberecký region has adopted a diversified funding model. It offers long-term grants to certified organizations, while also maintaining smaller grants to support a broader range of programs and providers, regardless of certification status.

Increasing acceptance and implementation of program evaluations

In parallel, a shift from debate over program evaluation (in the 2000s) to a growing consensus of evaluation has been observed (AS6.1). The survey result confirms this shift with most respondents agreeing that the relevance and quality of EE can be evaluated. Evaluation guidelines have been produced by NGOs (led by

SSEV Pavučina) and scientific community (led by MUNI) (AS2). These guidelines have been used by organizations for internal evaluation of EE programs. External evaluation remains rare due to limited funding capacity. Within the formal educational system (AS6.2), ČŠI is responsible of assessing the implementation of RVP in schools; however, EE is not yet systematically evaluated. To date, there have been two relevant assessment initiatives, one focusing on global development education in 2016, and another on environmental education in 2019/2020, the latter involving collaboration with the scientific community (MUNI). Other organizations, such as EECs, have not been involved in this evaluation process. Furthermore, evaluation activities related to regional and national EE development have emerged, coordinated by MŽP in collaboration with Pavučina (AS6.3). In this process, regional EE officers provide feedback on regional developments to the MŽP, which are then analyzed by Pavučina. The results are then internally shared back with the regions, providing regional officers with insights that can be used to update and refine their regional strategies and development plans.

From conceptual alignment to institutional fit

The conceptual work of the early 2010s laid the basis for an emergent institutional alignment across governmental sectors – MŽP and MŠMT – which had previously operated with limited coordination. This pattern corresponds with research on institutional fit, understood as the fit between institutions and the contexts in which they are embedded, often examined within social-ecological systems (e.g., Cumming et al., 2006; Ekstrom and Young, 2009; Epstein et al., 2024, 2015). In the context of ESE, we speak particularly to the form of social fit introduced by Epstein et al. (2015, p. 34), that is “...congruence between institutions and the preferences, values, and needs of human actors”. Two developments capture this institutional shift.

First, the Committee for Education of Sustainable Development (MŽP, MŠMT, EECs, and scientific community) emerged as a key cross-sector forum in shaping formal EE. The education sector framed EE within broader Education for Sustainable Development (ESD) and Sustainable Development Goals (SDG) frameworks. This alignment became visible in the most recent RVP revision (2025), which explicitly integrated EE learning outcomes and sustainability among key competences (AS3.2). This development indicates that MŠMT policymaking has become more responsive to accumulated conceptual work developed and widely accepted by the broader EE community, even though the effects on EE delivery (red tie from AS3.2 to AS1.1) remains unclear and require future examination,

Second, in 2020, MŽP, in cooperation with EECs and public organizations, developed the national qualification standards for the environmental educator profession. This standard-setting process was built directly on the earlier conceptual work (bold blue tie from AS2 to AS5.1). While their practical uptake and effectiveness on program quality remain to be assessed, these standards reflect a cross-sector approach to rule-making that was traditionally dominated by MŠMT.

Both rule-making processes featured active involvement of the broader EE community. The co-participation of EECs, scientific community, and MoE was pivotal in producing institutions that are aligned with the community preferences, knowledge, and needs of the governed ESE system (Epstein et al., 2015). Governance research has suggested that participatory governance is more likely to contribute to successful outcomes when communities have strong leadership and high levels of social capital (e.g., Gutiérrez et al., 2011; Mewhirter et al., 2019; Newig et al., 2023). These enabling conditions correspond with the attributes of the Czech EE community. EECs, whose relationships trace back to the Brontosaurus movement in the 1990s, have maintained strong social ties and trusts, and their coalition (Pavučina) has also maintained a constructive relationship with the key governmental decision-making unit within MŽP. Together, these contexts have supported the emergence of institutions that demonstrate increasing social fit within the EE governance system.

Operational challenges: educator qualification

The creation of EE programs (AS1) is incentivized by initiative of the organization itself (i.e., tradition of the organizations), external requests (i.e., from schools), state initiative (i.e., grant calls), current issues (i.e., climate change). There has been a shift from simple topics such as waste recycling habits to more complex and up-to-date ones such as climate change, circular economy, systems thinking, accompanying with inquiry-based, outdoor, place-based, experiential learning methods.

The increasing complexity of EE programs has introduced challenges related to qualifications. As one interviewee note: “An environmental education instructor is expected to be a true Renaissance person with knowledge in so many different areas. It’s really challenging.” This skill expectation creates difficulties in both hiring and qualification development.

- For EECs providing teacher training, one challenge is to expand engagement beyond traditional pool of science educators, as one noted that that “...difficulties to expand beyond science teachers—those in biology, chemistry, or physics. Engaging history or civics teachers, for example, to include climate change in their subjects is much harder...This is an ongoing challenge for us, as we end up training only a specific segment of educators.”
- Within EECs, the growing demand on climate education presents additional pressure. The shifting topic is also related to the targeted EE recipients, who are older students beyond the traditional targets on primary schools. One noted that “...while we recognize the growing social interest in climate education, it’s harder to find educators who are both great zoologists and ecologists and also have expertise in climate issues.”
- It is reported from some public organizations and regionally established EECs that the uncompetitive remuneration for environmental educators after salary raise for teachers was fixed to average wage is a growing barrier to attracting young and qualified professionals.

Although youth organizations played a central role in EE’s early history, they appear to be disconnected from EECs today. At the moment, they primarily provide informal and non-formal EE, while not so much involved in various rule/standard setting processes. Only in recent years, one youth organization began engaging with Pavučina. Given their close ties to the youth sector and the MŠMT, they could represent a strategic leverage point for strengthening further EE system integration.

Moreover, despite teachers being central to formal EE delivery, their role remains limited to recipients of training (AS5.1), with minimal participation in standard- or rule-making processes. However, informal networks of teachers—some facilitated by EECs—do exist. These networks, and the close relationships between teachers and EECs, represent underutilized leverage points that could be strategically harnessed to increase teacher participation in EE governance and decision-making processes.

Three strong new players came to the field: 1) so called forest kinergartens revolutionized the pre-school approach to EE, 2) so called forest pedagogy took more institutionalized shape than in previous period and 3) houses of nature started providing place-based educational programmes for schools very similar to many EECs. These actors have also developed impact in the field of programme offer towards schools.

To conclude, Period 3 is characterized by increasing conceptual alignment (across sectors) and the emergence of a more rule-based governance system. This process has been to a large extent driven by the active involvement of MŽP, EECs, and scientific community whose influence has expanded into domains of educational policymaking and standard setting – areas traditionally overseen by MŠMT. These actors have played a critical role in producing conceptual outcomes, certification systems, qualification standards, and evaluation frameworks.

At the same time, several governance gaps persist. First, teachers and youth organizations, although central to EE delivery, remain underrepresented in many rule-making processes. Second, systemic assessment of formal EE is remains limited. The recent revision of the RVP, which strengthens EE integration, presents an opportunity to provide clear guidance in school-level evaluation. Lastly, the use of certification as a funding criterion raises questions about accessibility and equity, particularly for smaller providers.

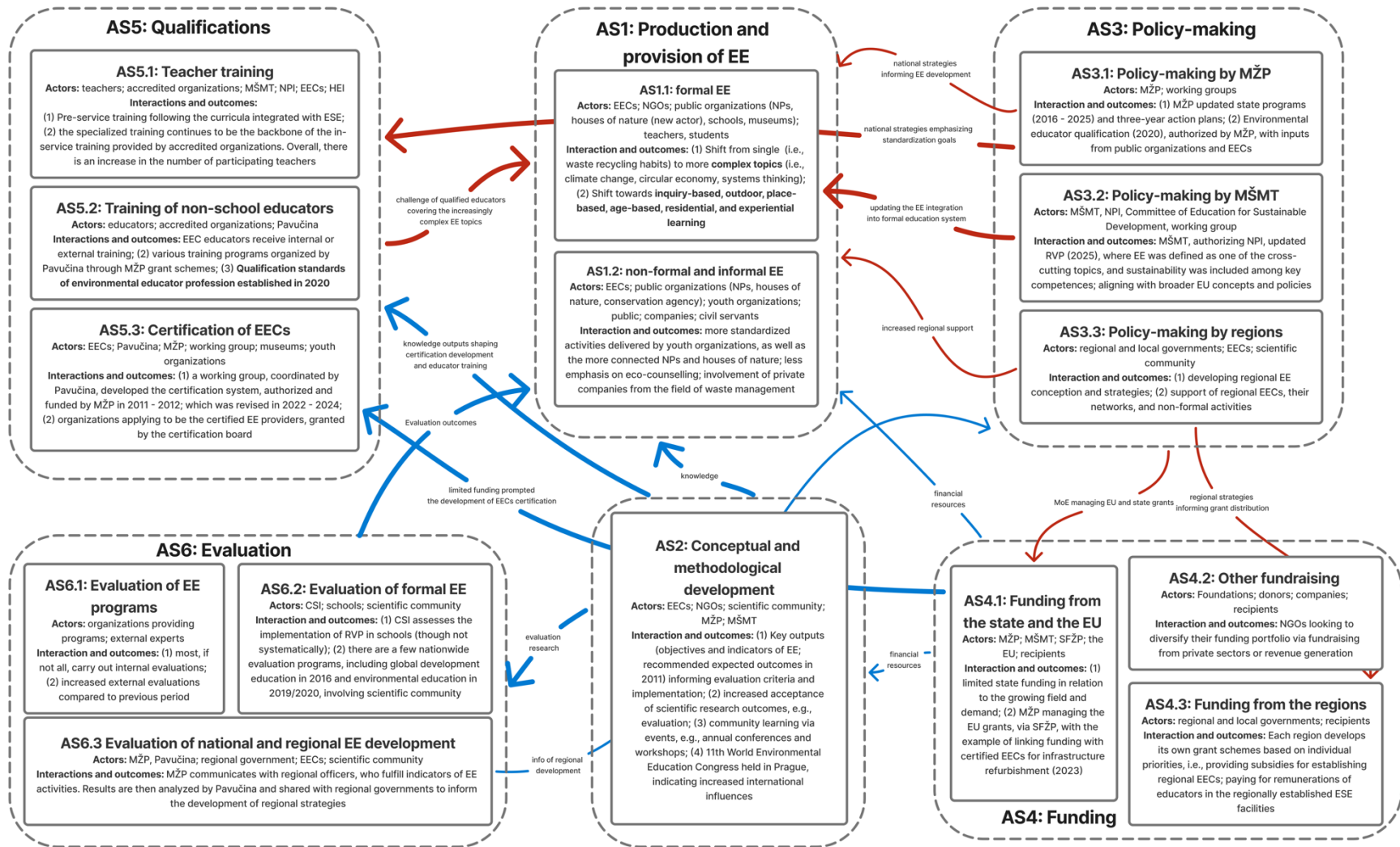


Figure 3. c: Period 3 (2010s – present)

Limitations of the NAS research:

- **Limited exploration of regional variation.** EE development differs across regions, which to some extent may be explained by local political priorities and financial capacities, according to the interview. However, our sample includes only one representative from one regional government. Incorporating a broader representation of regional governmental actors could inform understanding the drivers and dynamics of regional disparities.
- **Lack of representation from teachers and other formal educational institutes.** Formal EE plays a crucial role in the EE system. While our sample include a strong representation of EECs, which largely shape the formal EE, it lacks direct inputs from schools, teachers, and other key educational bodies (such as ČŠI). Including these policy actors could help better understand some of the identified barriers, such as the limited involvement of teachers in rule-making processes, and insufficient implementation of evaluation practices in schools.

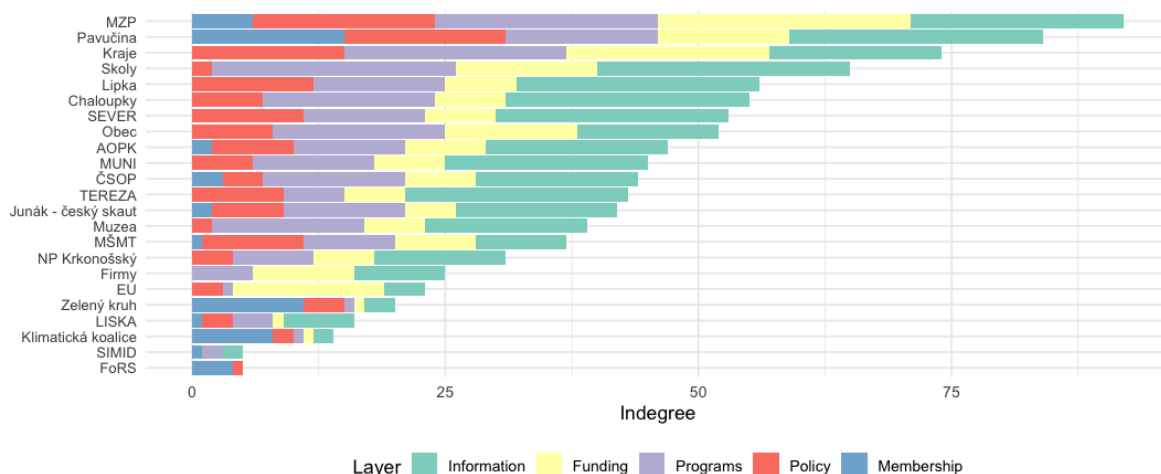


Figure 5: Key actors with the highest multiplex indegree centrality

Government and public entities

The Ministry of the Environment (MŽP) ranks highest overall with a multiplex indegree of 92, drawing ties in information, funding, programmes, policy and organizational hierarchy. Regional governments (Kraje) follow at 74 and local governments (Obec) with 52, powered mainly by programme and funding collaborations. The Ministry of Education (MŠMT) appears at 37, active in all layer, but with rather low indegrees. The Agency for Nature Conservation (AOPK) score 47 ties, reflecting mixed strengths in funding, programming and policy.

The European Union (EU) holds 23 multiplex ties, largely through funding.

Non-Governmental Organizations (NGOs)

Pavučina leads with 84 ties, combining the highest information indegree with substantial membership and policy. Lipka (56), Chaloupky (55) and SEVER (53) are next, each balancing collaborations in the information, programming and policy layers. TEREZA (43), Junák – Český skaut (42), ČSOP (44) and Veronica (37) also feature prominently in different layers. In addition, ČSOP’s multiplex profile is boosted by membership (3). Among umbrella and coalition bodies, Zelený kruh, Klimatická koalice and FoRS emerge also as key hubs that help integrate and coordinate the broader network.

Scientific Institutions

Masaryk University (MUNI) holds 45 multiplex ties, active mainly across information and programmes and policy.

Other Actors

The schools appear with 65 ingoing ties and museums record 39 ties, both primarily through information and programs. The corporate sector (Firmy) is involved mainly in funding and information ties.

Block models

Our model groups all the actors who are connected to the same types of others, thereby capturing functional or role-based similarity within the multiplex network. The resulting blocks are shown in **Figure 6**:

- Block 1: Pavučina, Lipka, Chaloupky, SEVER, TEREZA, Toulcův dvůr and Nadace Partnerství
- Block 2: Kraje, ZO ČSOP VERONICA, Sluňákov – centrum ekologických aktivit města Olomouce, o. p. s., ZO ČSOP Vlašim, Zoo Liberec, STŘEVLIK, Muzeum Říčany, Domy přírody, Junák - český skaut, Kapráluv mlýn, z.s.
- Block 3: Ministerstva životního prostředí (MŽP), Agentura ochrany přírody a krajiny (AOPK), Masarykova univerzita (MUNI), Junák - český skaut, Krkonošský národní park, NaZemí, Univerzita J. E. Purkyne in Ustí nad Labem (UJEP), firmy, Hnutí Brontosaurus, Národní park Šumava, Mladí ochránci přírody, z.s. (MOP), Národní park České Švýcarsko, Národní park Podyjí, BEZK, z.s., and Narodni pedagogicky institut (NPI).

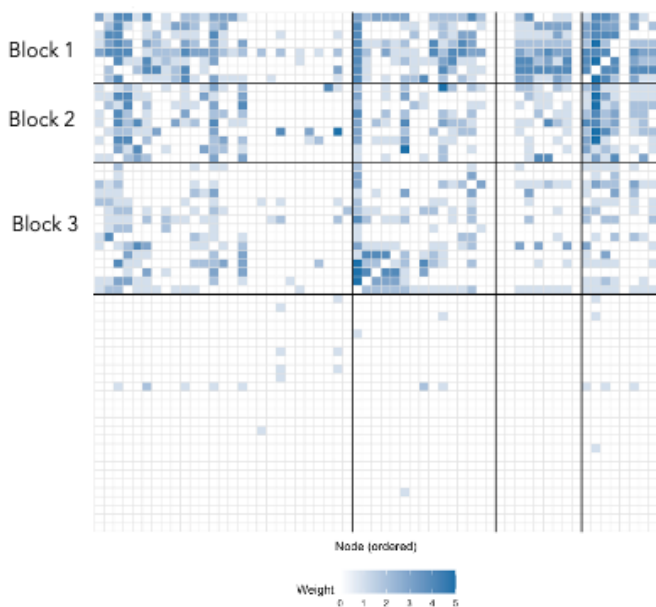


Figure 6: Block model of the weighted network

Note: Colour intensity represents weight, corresponding to the number of relational layers connecting each pair of actors. White indicates no tie (0), while dark blue represents the maximum weight (5 layers).

Block 1 exhibits high reciprocity, meaning that each pair of these actors not only sends ties to one another but is also cited in return, and the deep blue shading indicates that these mutual connections span multiple relational layers.

Although Block 1 and Block 2 are densely interconnected, Block 2 displays markedly lower reciprocity, with ties more often flowing in one direction.

Block 3, by contrast, functions mainly as a recipient of ties—particularly from ministries and regional governments—while a sub-cluster within Block 3, centered on MŽP, AOPK and the national parks, shows moderate mutual exchange.

Key findings for layers

Information layer:

A high-reciprocity block in the information-exchange network comprises ten NGOs—among them Chaloupky, Veronica, Pavučina, Lipka, Střevlík, SEVER, and TEREZA—as well as the Ministry of the Environment and Masaryk University (MUNI). Every organization in that block designates the others as consultation partners, creating a tightly woven network of reciprocal ties. This pattern reflects robust two-way communication among the non-governmental sector.

It is advisable to encourage cross-sector knowledge communities—bringing together NGOs, government agencies, academic institutions, and private actors—in order to pool diverse expertise and promote the flow of best practices. By institutionalizing mechanisms for regular, bidirectional consultation across sectors, EE stakeholders can enhance collective learning, foster innovation in programme design, and respond more effectively to emerging challenges throughout the field.

Funding layer

In the funding layer, the European Union (EU), the Ministry of the Environment (MŽP), regional governments (Kraje), municipalities (Obec), and private-sector funders (Firmy) occupy the most central positions. This layer is notably asymmetric, with low reciprocity: many actors are mentioned in the survey, but are not being mentioned in return.

Interestingly, no foundation was mentioned at this layer, despite the fact some received capital from NIF (Národní investiční fond) to also support environmental education.

Private firms are central in this layer, yet they participate little in non-financial collaborations.

Notably, NGOs and universities frequently report funding partnerships with schools.

A modest level of coordination appears among two blocks: NGOs and among certain public entities, especially national parks. These blocks might indicate collaborative approaches to resource allocation within the EVVO funding landscape.

Program delivery layer

Collaboration is structured around key actors, mainly government agencies and leading NGOs, working alongside schools, museums, national parks, and other types of education centres. The scientific community, notably Masaryk University (MUNI) and UJEP, maintains close ties with NGO hubs and central public bodies, integrating research findings into programme design.

A first block in the program layer, composed mainly by NGOs (Pavučina, Lipka, Zoo Liberec, SEVER and Toulcův dvůr), form a highly reciprocal subnetwork, jointly stating collaborations in EVVO programmes. A second tier, comprising additional NGOs and public actors such as national parks, protected landscape bodies, and houses of nature, also fosters programme collaborations but with lower reciprocity than the first block.

However, schools (Školy) occupy the most central position, underscoring that environmental education fundamentally builds on schools. Although schools are very central, the Ministry of Education (MŠMT) holds a relatively peripheral role in this layer.

Policy influence layer

The policy layer is comparatively sparse and centers on a core of government entities and NGOs. On the government side, the Ministry of the Environment (MŽP), regional governments (Kraje) and the Ministry of Education (MŠMT) are the most cited. Among NGOs, SSEV Pavučina, SEVER, Lipka and TEREZA hold the highest indegree centralities.

A highly reciprocal block, formed by Chaloupky, Pavučina, Lipka, Střevlík, SEVER, TEREZA, Toulcův dvůr, the National Pedagogical Institute (NPI), and Masaryk University (MUNI), collaborates closely on policy influence. Such reciprocity might contribute to accelerate the diffusion of new ideas, to build collective legitimacy, and to amplify each member's voice when engaging with decision-makers. It should be noted, however, that the specific composition of this block may reflect the sample selection used for our survey.

National parks, together with MŽP, also form a cohesive block of mutual ties, reflecting collaboration between public agencies and the Ministry.

Membership layer

The membership layer (**Figure 7**) captures only a selection of a focused subset of a far broader network of environmental stakeholders in the Czech Republic (see supplementary materials). Even in this smaller group, umbrella memberships cluster around just a few key organizations: Pavučina, Zelený kruh, Klimatická koalice, FoRS and ČSOP.

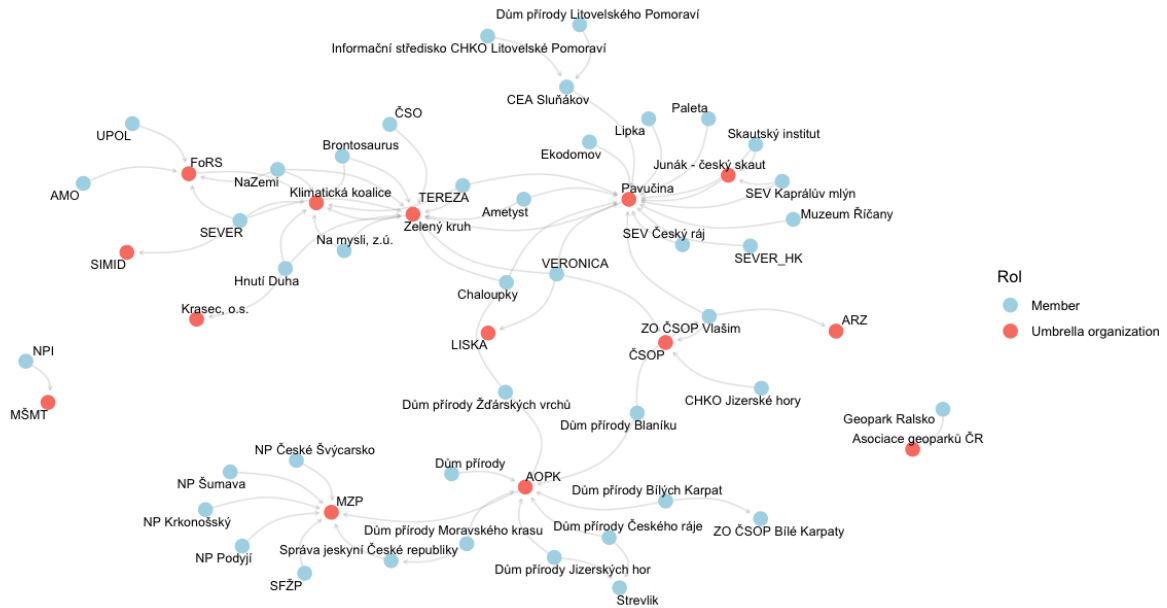


Figure 7: Membership layer within the multiplex network

Note: The network data might not be exhaustive and should be interpreted as partial representations of the relational structure within the EE system. Such possible omissions may result from limitations in available documentation.

Public-sector hierarchies also emerge clearly. The Ministry of the Environment (MŽP) serves as an umbrella, reflecting its formal oversight of environmental governance. Each of the four national parks and the Agency for Nature Conservation (AOPK) directs a “membership” tie to MŽP, indicating their institutional subordination. Likewise, AOPK itself reports ties to regional “houses of nature” and information centres, that, in turn, are often administered by non-governmental organizations.

Special attention deserves organizations that connect different networks (e.g. Veronica, SEVER, Chaloupky). These *hubs* presumably play important roles in information transfer and networks coordination.

Beliefs and statements

For each response, we calculate net agreement or net disagreement: green when agreement outweighs disagreement, and red otherwise. Results reflecting beliefs and opinions of surveyed actors are shown in **Figure 8**. A detailed description of each statement can be found in Supplementary Materials.

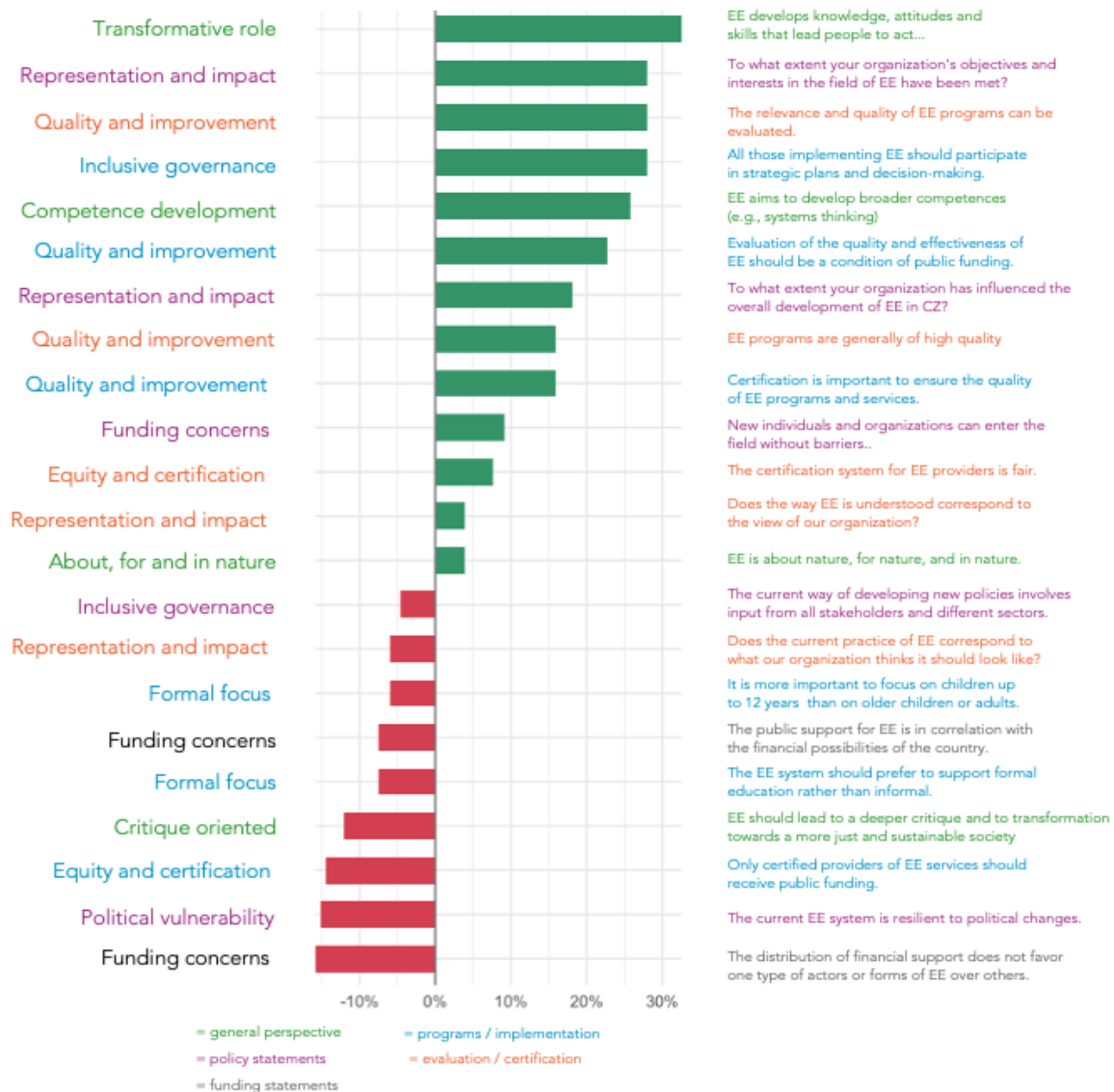


Figure 8: Survey results regarding environmental education in the Czech Republic

Net positive:

Survey respondents conceive environmental education primarily as a transformative process that “helps develop knowledge, attitudes and skills that lead people to action.” They also agree that EE should cultivate “broader competencies”—including systems thinking, future-oriented reasoning, and collective action skills—to address complex sustainability challenges.

To achieve these goals, respondents endorse the view that “all those implementing EE should participate in strategic plans and decisions”. Furthermore, they see their objectives and interests represented in the current EE system and they are confident that they are influencing and shaping its development in the Czech Republic.

There is widespread confidence that EE in the Czech Republic is already of high quality, yet is also strong support that evaluation and certification are likewise essential to maintain and improve this quality standard. Overall, quality and effectiveness of EE programs should be a condition for (public) funding.

Net negative:

Respondents largely reject a narrow, age-restricted vision of EE, and that “EE providers should prefer formal over informal learning”.

They also dispute the claim that “the public support levels for EE are fully compatible with the financial possibilities of the country,” indicating a sense that funding remains insufficient. Organizations also largely reject the notion that evaluation and certification alone justify funding, disagreeing that “only certified EE providers should receive public funding”. They also think that the distribution of public support might be favoring some specific types of EE over others.

Finally, they oppose the view that “the current EE system is resilient to political change” in the Czech Republic. This adds (political) instability to the EE context and makes it more difficult to develop long-term plans and programs.

References

- Angst, M., Mewhirter, J., McLaughlin, D., Fischer, M., 2022. Who Joins a Forum—And Who Does Not?—Evaluating Drivers of Forum Participation in Polycentric Governance Systems. *Public Adm. Rev.* 82, 692–707. <https://doi.org/10.1111/puar.13427>
- Baldwin, E., McLaughlin, D.M., Jasso, V., Woods, D., Breshears, D.D., López-Hoffman, L., Soto, J.R., Swann, A., Lien, A., 2023. Diverse stakeholders and their interests matter to the U.S. Forest Service: a network of action situations analysis of how stakeholders affect forest plan outcomes. *Sustain. Sci.* 18, 27–42. <https://doi.org/10.1007/s11625-022-01173-4>
- Berardo, R., Lubell, M., 2019. The Ecology of Games as a Theory of Polycentricity: Recent Advances and Future Challenges. *Policy Stud. J.* 47, 6–26. <https://doi.org/10.1111/psj.12313>
- CENIA, 2005. The environment in the Czech Republic 1989 - 2004. Prague.
- Činčera, J., 2013. Střediska ekologické výchovy mezi teorií a praxí. Praha: BEZK, Agentura Koniklec a Masarykova univerzita.
- Cole, D.H., 2014. Formal Institutions and the IAD Framework: Bringing the Law Back In. SSRN Electron. J. <https://doi.org/10.2139/ssrn.2471040>
- Cumming, G., Cumming, D.H.M., Redman, C., 2006. Scale Mismatches in Social-Ecological Systems: Causes, Consequences, and Solutions. *Ecol. Soc.* 11. <https://doi.org/10.5751/ES-01569-110114>
- Cumming, G.S., Epstein, G., Anderies, J.M., Apetrei, C.I., Baggio, J., Bodin, Ö., Chawla, S., Clements, H.S., Cox, M., Egli, L., Gurney, G.G., Lubell, M., Magliocca, N., Morrison, T.H., Müller, B., Seppelt, R., Schlüter, M., Unnikrishnan, H., Villamayor-Tomas, S., Weible, C.M., 2020. Advancing understanding of natural resource governance: a post-Ostrom research agenda. *Curr. Opin. Environ. Sustain., Resilience and complexity: Frameworks and models to capture social-ecological interactions* 44, 26–34. <https://doi.org/10.1016/j.cosust.2020.02.005>
- Dorean, P., Batagelj, V., Ferligoj, A., 2004. Generalized blockmodeling of two-mode network data. *Soc. Netw.* 26, 29–53. <https://doi.org/10.1016/j.socnet.2004.01.002>
- Ekstrom, J., Young, O., 2009. Evaluating Functional Fit between a Set of Institutions and an Ecosystem. *Ecol. Soc.* 14. <https://doi.org/10.5751/ES-02930-140216>
- Epstein, G., Apetrei, C.I., Baggio, J., Chawla, S., Cumming, G., Gurney, G., Morrison, T., Unnikrishnan, H., Tomas, S.V., 2024. The Problem of Institutional Fit: Uncovering Patterns with Boosted Decision Trees | International Journal of the Commons. <https://doi.org/10.5334/ijc.1226>
- Epstein, G., Pittman, J., Alexander, S.M., Berdej, S., Dyck, T., Kreitmair, U., Rathwell, K.J., Villamayor-Tomas, S., Vogt, J., Armitage, D., 2015. Institutional fit and the sustainability of social–ecological systems. *Curr. Opin. Environ. Sustain., Open Issue* 14, 34–40. <https://doi.org/10.1016/j.cosust.2015.03.005>
- Gutiérrez, N.L., Hilborn, R., Defeo, O., 2011. Leadership, social capital and incentives promote successful fisheries. *Nature* 470, 386–389. <https://doi.org/10.1038/nature09689>
- Kimmich, C., 2013. Linking action situations: Coordination, conflicts, and evolution in electricity provision for irrigation in Andhra Pradesh, India. *Ecol. Econ.* 90, 150–158. <https://doi.org/10.1016/j.ecolecon.2013.03.017>
- Kimmich, C., Baldwin, E., Kellner, E., Oberlack, C., Villamayor-Tomas, S., 2022. Networks of action situations: a systematic review of empirical research. *Sustain. Sci.* <https://doi.org/10.1007/s11625-022-01121-2>
- Kimmich, C., Villamayor-Tomas, S., 2019. Assessing Action Situation Networks: A Configurational Perspective on Water and Energy Governance in Irrigation Systems. *Water Econ. Policy* 05, 1850005. <https://doi.org/10.1142/S2382624X18500054>
- Kvasničková, D., 1985. *Výchova k péči o životní prostředí* (Translation: Education on caring for the environment). Státní zemědělské nakladatelství.
- Lubell, M., 2013. Governing Institutional Complexity: The Ecology of Games Framework. *Policy Stud. J.* 41, 537–559. <https://doi.org/10.1111/psj.12028>
- McGinnis, M.D., 2019. Connecting commons and the IAD framework, in: Hudson, B., Rosenbloom, J., Cole, D. (Eds.), *Routledge Handbook of the Study of the Commons*. Routledge, Abingdon, Oxon ; New York, NY : Routledge, 2019., pp. 50–62. <https://doi.org/10.4324/9781315162782-5>
- McGinnis, M.D., 2011. Networks of Adjacent Action Situations in Polycentric Governance. *Policy Stud. J.* 39, 51–78. <https://doi.org/10.1111/j.1541-0072.2010.00396.x>
- Méndez, P.F., Clement, F., Palau-Salvador, G., Diaz-Delgado, R., Villamayor-Tomas, S., 2023. Understanding the governance of sustainability pathways: hydraulic megaprojects, social–ecological traps, and power in networks of action situations. *Sustain. Sci.* 18, 303–321. <https://doi.org/10.1007/s11625-022-01258-0>
- Mewhirter, J., Coleman, E.A., Berardo, R., 2019. Participation and Political Influence in Complex Governance Systems. *Policy Stud. J.* 47, 1002–1025. <https://doi.org/10.1111/psj.12227>
- Möck, M., Vogeler, C.S., Bandelow, N.C., Schröder, B., 2019. Layering Action Situations to Integrate Spatial Scales, Resource Linkages, and Change over Time: The Case of Groundwater Management in Agricultural Hubs in Germany. *Policy Stud. J.* [psj.12377](https://doi.org/10.1111/psj.12377). <https://doi.org/10.1111/psj.12377>
- Morrison, T.H., Bodin, Ö., Cumming, G.S., Lubell, M., Seppelt, R., Seppelt, T., Weible, C.M., 2023. Building blocks of polycentric governance. *Policy Stud. J.* 51, 475–499. <https://doi.org/10.1111/psj.12492>
- Newig, J., Jager, N.W., Challies, E., Kochskämper, E., 2023. Does stakeholder participation improve environmental governance? Evidence from a meta-analysis of 305 case studies. *Glob. Environ. Change* 82, 102705. <https://doi.org/10.1016/j.gloenvcha.2023.102705>

- Ostrom, E., 2010. Polycentric systems for coping with collective action and global environmental change. *Glob. Environ. Change*, 20th Anniversary Special Issue 20, 550–557. <https://doi.org/10.1016/j.gloenvcha.2010.07.004>
- Ostrom, E., 1990. *Governing the Commons: The Evolution of Institutions for Collective Action*, Political Economy of Institutions and Decisions. Cambridge University Press, Cambridge. <https://doi.org/10.1017/CBO9780511807763>
- Ostrom, E., Gardner, R., Walker, James, Walker, Jimmy, 1994. *Rules, Games, and Common-pool Resources*. University of Michigan Press.
- Pahl-Wostl, C., Holtz, G., Kastens, B., Knieper, C., 2010. Analyzing complex water governance regimes: the Management and Transition Framework. *Environ. Sci. Policy*, Special issue: Water governance in times of change 13, 571–581. <https://doi.org/10.1016/j.envsci.2010.08.006>
- Prell, C., 2011. *Social Network Analysis : History, Theory and Methodology* 1–272.
- Schlüter, M., Haider, L., Lade, S., Lindkvist, E., Martin, R., Orach, K., Wijermans, N., Folke, C., 2019. Capturing emergent phenomena in social-ecological systems: an analytical framework. *Ecol. Soc.* 24. <https://doi.org/10.5751/ES-11012-240311>
- Scott, J., 2017. *Social Network Analysis*. SAGE Publications Ltd. <https://doi.org/10.4135/9781529716597>
- Sendzimir, J., Flachner, Z., Pahl-Wostl, C., Knieper, C., 2010. Stalled regime transition in the upper Tisza River Basin: the dynamics of linked action situations. *Environ. Sci. Policy*, Special issue: Water governance in times of change 13, 604–619. <https://doi.org/10.1016/j.envsci.2010.09.005>
- Shi, Y., Recinos Brizuela, S.S., Hein, T., Funk, A., Kimmich, C., 2025. The dynamics of linked social–ecological action situations reveal governance changes in the Austrian Danube. *J. Environ. Manage.* 395, 127662. <https://doi.org/10.1016/j.jenvman.2025.127662>
- Tan, R., Xiong, C., Kimmich, C., 2023. An agent-situation-based model for networked action situations: Cap-and-trade land policies in China. *Land Use Policy* 131, 106743. <https://doi.org/10.1016/j.landusepol.2023.106743>
- Wasserman, S., Faust, K., 1994. *Social Network Analysis: Methods and Applications*, Structural Analysis in the Social Sciences. Cambridge University Press, Cambridge. <https://doi.org/10.1017/CBO9780511815478>
- Žiberna, A., 2007. Generalized blockmodeling of valued networks. *Soc. Netw.* 29, 105–126. <https://doi.org/10.1016/j.socnet.2006.04.002>

Supplementary materials

Table SM1. Descriptive statistics for single-layers and the multiplex network

Network features	Information layer	Funding layer	Programs layer	Policy layer	Membership layer	Multiplex network
Node count	99	99	99	99	99	99
Edge count	641	275	410	264	71	1646
Isolates	19	36	13	40	54	0
Density	0.066	0.028	0.042	0.027	0.007	0.170
Mean indegree	6.5	2.8	4.1	2.7	0.71	16.6

Figure SM1. Multiplex network: 99 nodes and 1646 ties in 5 combined layers

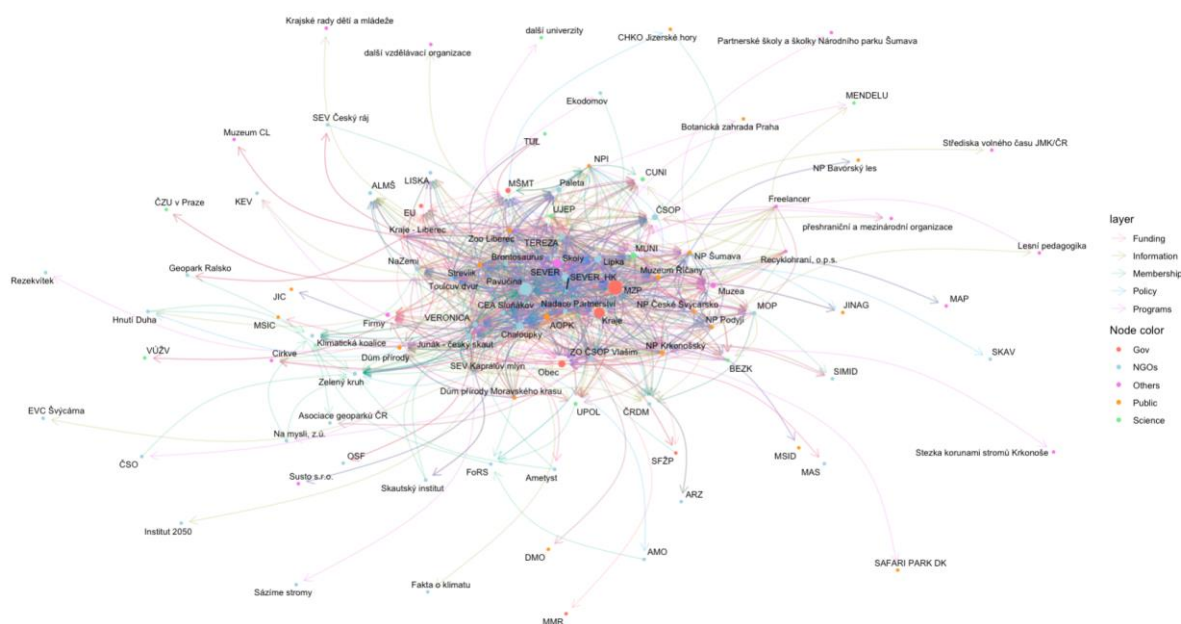


Table SM2. Node list: organization names, organization type and indegree centralities

Ordered by organization type and in descending order by multiplex indegree

Label	Organization	Type	Information	Funding	Programs	Policy	Membership	Multiplex
MŽP	Ministerstva životního prostředí	Gov	21	25	22	18	6	92
Kraje	Kraje	Gov	17	20	22	15	0	74
Obec	Obec	Gov	14	13	17	8	0	52
MŠMT	Ministerstvo školství, mládeže a tělovýchovy České republiky	Gov	9	8	9	10	1	37
EU	European Union	Gov	4	15	1	3	0	23
SFŽP	Státní fond životního prostředí ČR	Gov	1	2	1	0	0	4
MMR	Ministerstvo pro místní rozvoj ČR	Gov	0	1	0	0	0	1
Kraje - Liberec	Kraje - Liberec	Gov	0	0	0	0	0	0
Pavučina	SSEV Pavučina	NGOs	25	13	15	16	15	84
Lipka	Lipka	NGOs	24	7	13	12	0	56
Chaloupky	Chaloupky o.p.s.	NGOs	24	7	17	7	0	55

SEVER	Středisko ekologické výchovy SEVER	NGOs	23	7	12	11	0	53
ČSOP	Česky svaz ochranců přírody a krajiny	NGOs	16	7	14	4	3	44
TEREZA	TEREZA, vzdělávací centrum, z. ú.	NGOs	22	6	6	9	0	43
Junák - český skaut	Junák - český skaut	NGOs	16	5	12	7	2	42
VERONICA	ZO ČSOP VERONICA	NGOs	18	5	7	7	0	37
Paleta	Ekocentrum Paleta	NGOs	17	3	7	6	0	33
CEA Sluňákov	Sluňákov – centrum ekologických aktivit města Olomouce, o. p. s.	NGOs	17	3	6	6	0	32
ZO ČSOP Vlašim	ZO ČSOP Vlašim	NGOs	16	4	6	5	0	31
Toulav dvur	Toulav dvur	NGOs	15	3	8	4	0	30
Nadace Partnerství	Nadace Partnerství	NGOs	17	5	4	4	0	30
NaZemi	NaZemi	NGOs	13	3	7	4	0	27
Brontosaurus	Hnutí Brontosaurus	NGOs	13	3	5	3	0	24
MOP	Mladí ochránci přírody, z.s.	NGOs	7	5	7	2	0	21
Zelený kruh	Zelený kruh	NGOs	3	1	1	4	11	20
ČRDM	Česká rada dětí a mládeže	NGOs	11	0	0	6	0	17
ALMŠ	Asociace lesních mateřských školek	NGOs	10	0	3	4	0	17
LISKA	LÍSKA, z.s.	NGOs	7	1	4	3	1	16
Klimatická koalice	Klimatická koalice	NGOs	2	1	1	2	8	14
FoRS	České fórum pro rozvojovou spolupráci	NGOs	0	0	0	1	4	5
SIMID	Sdružení pro interpretaci místního dědictví ČR	NGOs	2	0	2	0	1	5
Skautský institut	Junák – český skaut, Skautský institut, z. s.	NGOs	1	1	1	1	0	4
Asociace geoparků ČR	Asociace geoparků ČR	NGOs	1	0	1	0	1	3
ARZ	Asociací regionálních značek, z.s.	NGOs	1	0	1	0	1	3
Geopark Ralsko	Národní geopark Ralsko	NGOs	1	1	1	0	0	3
SEV Český ráj	Středisko ekologické výchovy Český ráj	NGOs	1	1	1	0	0	3
OSF	Nadace OSF	NGOs	1	1	1	0	0	3
Hnutí Duha	Hnutí Duha	NGOs	1	0	0	1	0	2
MAS	Místní akční skupina	NGOs	0	1	1	0	0	2
Ametyst	Spolek Ametyst	NGOs	0	1	1	0	0	2
KEV	Klub ekologické výchovy	NGOs	1	0	1	0	0	2
SKAV	Stálá konference asociací ve vzdělávání	NGOs	0	0	0	1	0	1
AMO	Asociace pro mezinárodní otázky	NGOs	0	0	0	1	0	1
Na myslí, z.ú.	Na myslí, z.ú.	NGOs	0	0	1	0	0	1
ČSO	Česká společnost ornitologická	NGOs	0	0	1	0	0	1
Ekodomov	EKODOMOV, z. s.	NGOs	0	0	1	0	0	1
Rezekvítek	Rezekvítek, z. s.	NGOs	0	0	1	0	0	1
Sázíme stromy	Sázíme stromy	NGOs	0	0	1	0	0	1
Fakta o klimatu	Fakta o klimatu	NGOs	1	0	0	0	0	1

Institut 2050	Institut 2050	NGOs	1	0	0	0	0	1
EVC Švýcarska	Ekologické volnočasové centrum Švýcarska	NGOs	1	0	0	0	0	1
SEV Kapráluv mlýn	Junák - český skaut, Kapráluv mlýn, z.s.	NGOs	0	0	0	0	0	0
SEVER_HK	Středisko ekologické výchovy SEVER Hradec Králové o.p.s.	NGOs	0	0	0	0	0	0
Skoly	Skoly	Others	25	14	24	2	0	65
Muzea	Muzea	Others	16	6	15	2	0	39
Firmy	Firmy	Others	9	10	6	0	0	25
Cirkve	Cirkve	Others	3	1	2	0	0	6
Susto s.r.o.	Susto s.r.o.	Others	1	0	1	1	0	3
MAP	místní akční plán	Others	1	0	1	1	0	3
přeshraniční a mezinárodní organizace	přeshraniční a mezinárodní organizace	Others	1	0	2	0	0	3
Muzeum CL	Vlastivědné muzeum a galerie v České Lípě	Others	1	1	1	0	0	3
Lesní pedagogika	Lesní pedagogika	Others	1	0	1	0	0	2
Partnerské školy a školky Národního parku Šumava	Partnerské školy a školky Národního parku Šumava	Others	0	0	1	0	0	1
Stezka korunami stromů Krkonoše	Stezka korunami stromů Krkonoše	Others	0	0	1	0	0	1
Krajské rady dětí a mládeže	Krajské rady dětí a mládeže	Others	1	0	0	0	0	1
Střediska volného času JMK/ČR	Střediska volného času JMK/ČR	Others	1	0	0	0	0	1
další vzdělávací organizace	další vzdělávací organizace	Others	1	0	0	0	0	1
Recyklohraní, o.p.s.	Recyklohraní, o.p.s.	Others	0	0	0	0	0	0
Freelancer	Freelancer	Others	0	0	0	0	0	0
AOPK	Agentura ochrany přírody a krajiny	Public	18	8	11	8	2	47
Zoo Liberec	Zoo Liberec	Public	12	4	7	8	0	31
Strevlik	STŘEVLIK	Public	15	3	7	6	0	31
NP Krkonošský	Krkonošský národní park	Public	13	6	8	4	0	31
Muzeum Říčany	Muzeum Říčany	Public	12	1	10	7	0	30
Dům přírody	Dům přírody	Public	13	4	6	3	0	26
NP Šumava	Národní park Šumava	Public	9	4	7	4	0	24
NP České Švýcarsko	Národní park České Švýcarsko	Public	8	3	5	5	0	21
NP Podyjí	Národní park Podyjí	Public	8	3	4	4	0	19
NPI	Národní pedagogický institut	Public	7	0	0	4	0	11
JINAG	Jihomoravská agentura pro veřejné inovace	Public	1	1	1	2	0	5
MSID	Moravskoslezské Investice a Development a.s.	Public	0	1	1	1	0	3
JIC	Jihomoravské inovační centrum	Public	1	0	1	1	0	3
NP Bavorský les	Národní park Bavorský les	Public	1	0	1	1	0	3
MSIC	Moravskoslezské inovační centrum	Public	0	1	1	0	0	2
DMO	Organizace Destinačního Managementu	Public	1	0	1	0	0	2
CHKO Jizerské hory	36/02 ZO ČSOP při správě CHKO Jizerské hory	Public	0	0	0	1	0	1
Botanická zahrada Praha	Botanická zahrada Praha	Public	0	0	1	0	0	1

SAFARI PARK DK	Safari Park Dvůr Králové	Public	0	0	1	0	0	1
Dům přírody Moravského krasu	Dům přírody Moravského krasu	Public	0	0	0	0	0	0
MUNI	Masarykova univerzita	Science	20	7	12	6	0	45
UJEP	Univerzita J. E. Purkyně in Ústí nad Labem	Science	11	5	6	4	0	26
CUNI	Univerzita Karlova	Science	14	2	7	2	0	25
UPOL	Univerzita Palackého v Olomouci	Science	10	4	5	0	0	19
BEZK	BEZK, z.s.	Science	6	3	3	1	0	13
TUL	Technická univerzita v Liberci	Science	2	2	2	1	0	7
ČZU v Praze	Česká zemědělská univerzita v Praze	Science	1	1	1	0	0	3
VÚŽV	Výzkumný ústav živočišné výroby, v.v.i.	Science	1	1	1	0	0	3
MENDELU	Mendelova univerzita	Science	1	0	1	0	0	2
další univerzity	další univerzity	Science	0	0	1	0	0	1

Figure SM2. Outlier detection in the multiplex network: by layer
 Red dots denote organizations whose indegree ranks within the top quartile for each relational layer.

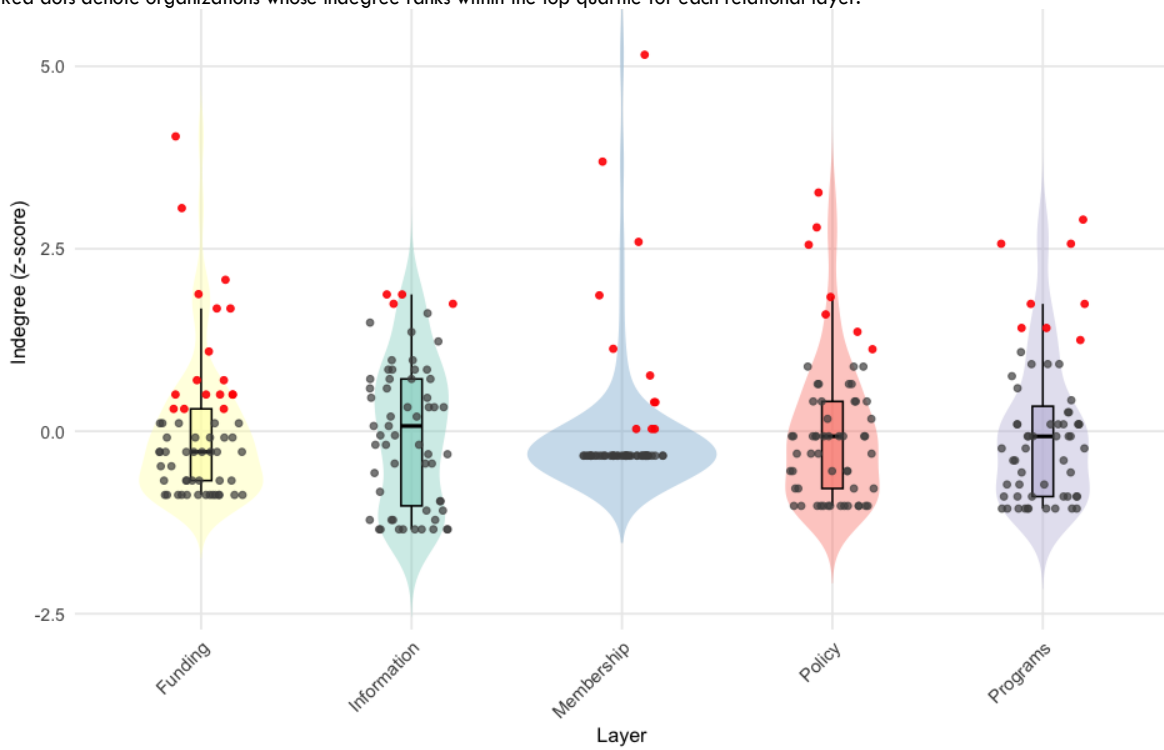


Figure SM3. Network of environmental stakeholders in the Czech Republic

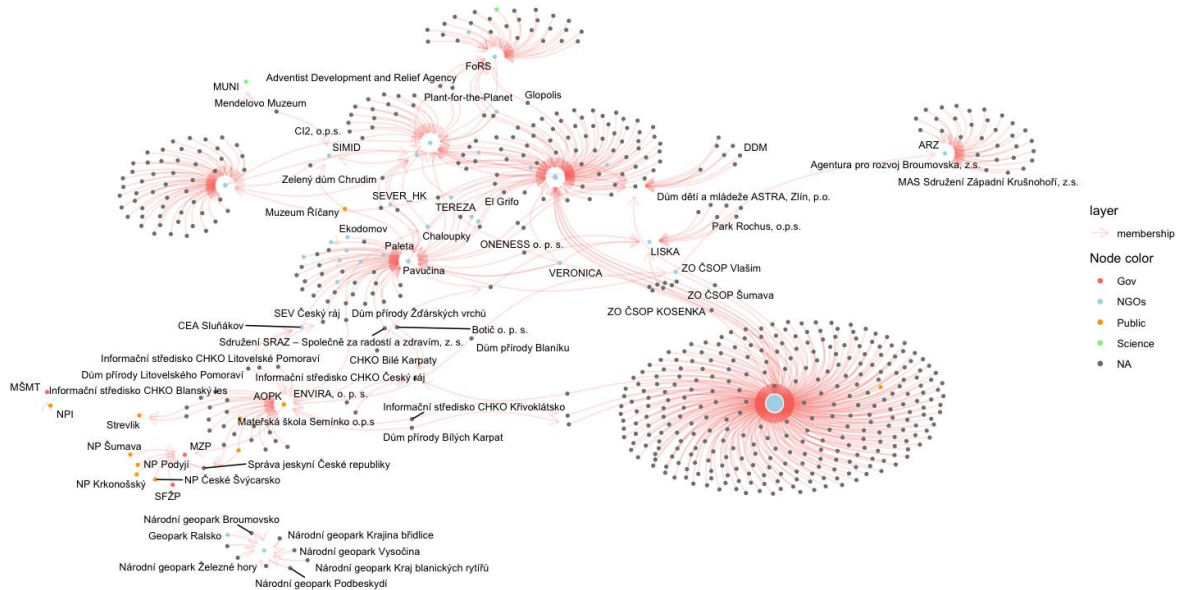
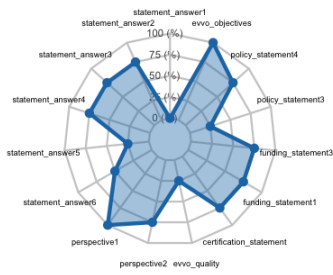
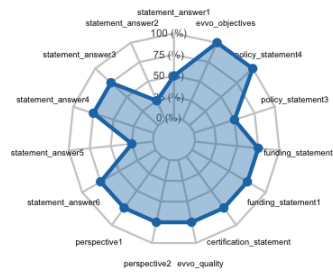


Figure SM4. Detailed survey answers of all respondents (beliefs and statements)
 Strongly agree = 100%, rather agree = 75%, not sure = 50%, rather disagree = 25%, disagree = 0%

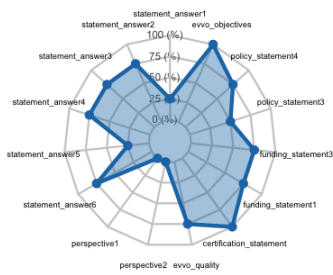
TEREZA (N19)



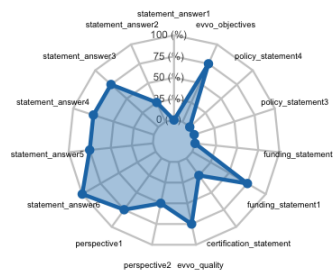
Toulcuv dvur (N20)



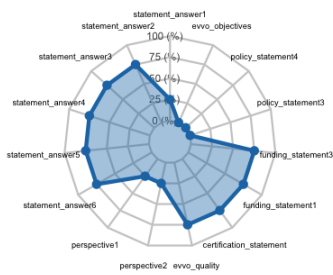
Nadace Partnerství (N21)



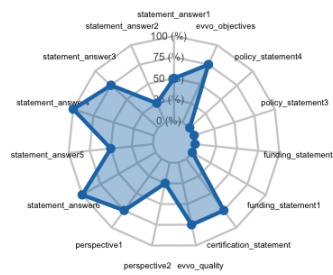
SEV Kapráluv mlýn (N24)



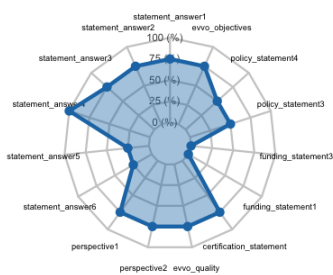
UJEP (SC1)



MUNI (SC4)



BEZK (SC5)



Recyklohraní, o.p.s. (O2.1)

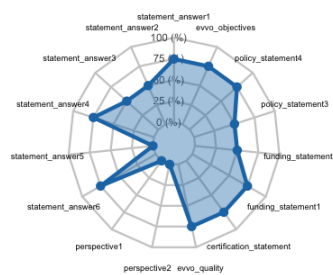


Table SM3. Survey: belief-related statements

Statement

Short-name

Response options

General perspective		
Environmental education is about nature, for nature, and in nature (i.e., it takes place in a natural environment as much as possible).	Statement_ranking1	Ranking from 1 to 4
Environmental education develops knowledge, attitudes and skills that lead people to act in ways that protect and do not damage the environment.	Statement_ranking2	
Environmental education aims to develop broader competences (e.g. systems thinking, the ability to think about the future, the ability to organize collective action to promote sustainability) that people can then apply in different situations and contexts.	Statement_ranking3	
Environmental education should lead to a deeper critique of the injustices in the current social system and its gradual transformation towards a more just and sustainable society.	Statement_ranking4	
Programs / implementation		
It is more important to focus on children up to 12 years of age than on older children or adults.	statement_answer1	Rozhodně souhlasím = strongly agree
The ECEC system in the Czech Republic should prefer to support formal education programs (within schooling) rather than informal programs (e.g. scouting, nature trails).	statement_answer2	Spíše souhlasím = rather agree
Certification is important to ensure the quality of EVS programs and services.	statement_answer3	Nejsem si jistý/jistá = not sure
Evaluation of the quality and effectiveness of EVS programs should be a condition of public funding.	statement_answer4	Spíše nesouhlasím = rather disagree
Only certified providers of EV services should receive public funding for EV.	statement_answer5	Rozhodně nesouhlasím = strongly disagree
All those implementing EVVO programs should be invited to participate in the development of strategic plans and decision-making in the field of EV in the country	statement_answer6	
Evaluation / certification		
Does the way EVVO is understood in the Czech Republic (objectives, focus) correspond to the view of our organization?	Perspective1	Rozhodně souhlasím = strongly agree
Does the current practice of EVVO in the Czech Republic correspond to what our organization thinks it should look like?	Perspective2	Spíše souhlasím = rather agree
EVVO programs in the Czech Republic are generally of high quality	Evvo_quality	Nejsem si jistý/jistá = not sure
The way the Czech certification system for environmental education providers is set up is fair and does not favor some organizations over others.	Certification_statement	Spíše nesouhlasím = rather disagree
The relevance and quality of EVVO programs can be evaluated.	Evaluation_statement	Rozhodně nesouhlasím = strongly disagree
Funding		
The extent of public support for EVVO in the Czech Republic is correlation with the financial possibilities of the country.	Funding_statement1	Rozhodně souhlasím = strongly agree
The method of distribution of financial support for EVS in the Czech Republic does not favor one type of actors or forms of EVS over others.	Funding_statement3	Spíše souhlasím = rather agree
		Nejsem si jistý/jistá = not sure
		Spíše nesouhlasím = rather disagree
		Rozhodně nesouhlasím = strongly disagree
Policy making		
The current way of developing new EVVO policies in the Czech Republic involves input from all stakeholders from different sectors.	Policy_statement1	Rozhodně souhlasím = strongly agree
The current EVVO system in the Czech Republic is resilient to major political changes.	Policy_statement3	Spíše souhlasím = rather agree
New individuals and organizations can enter the field without barriers.	Policy_statement4	Nejsem si jistý/jistá = not sure
Could you please evaluate to what extent your organization has influenced the overall development of EVVO in the Czech Republic?	Policy_impact	Spíše nesouhlasím = rather disagree
Could you please assess to what extent your organization's overall objectives and interests in the field of EVVO have been met?	Evvo_objectives	Rozhodně nesouhlasím = strongly disagree