

Flexible Networks Asserting Agency: Youth Participation in UNFCCC Processes

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Abstract

Youth are increasingly regarded as key actors in climate politics. At the global level, youth participation is visible at the conferences of the parties (COPs) to the UNFCCC. While the number of youth participants has gradually increased, the structural dimensions of youth participation, especially their networks in international policymaking, remain underexplored. This article addresses this knowledge gap by analyzing youth involvement at the UNFCCC COPs from COP1 to COP27 using social network analysis. By examining coaffiliation and side-event co-organization networks, we argue that youth actors persistently contribute to climate political spaces as active network cocreators. Despite structural inequalities, youth-to-youth collaboration, from both Global South and Global North, bridges informal and formal modes of engagement in climate politics, asserting youth agency. Moreover, the varied communities of youth networks show that youth are heterogeneous actors pursuing diverse mobilization strategies, not necessarily based on ideational affinity.

Keywords: Youth participation, international climate politics, social network analysis, UNFCCC COPs, youth climate movement

Youth² are increasingly regarded as key actors in climate politics. After Greta Thunberg began striking in front of the Swedish Parliament in 2018, the Fridays for Future movement became a global phenomenon. Millions of young people have urged governments to take stronger, faster action to prevent the climate crisis. The influence of youth protests reached governmental politics. Among others, the 2019 European Parliament election, held after the rise of Fridays for Future, saw the turnout of young people under age twenty-five increase the most due to interest in climate issues, highlighting youth as an emerging political force (European Parliament 2019).

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² *Youth* is defined in multiple ways across institutions. The UN defines youth as individuals aged fifteen to twenty-four years, while the UN Major Group for Children and Youth accepts individuals up to age thirty. This article adopts the definition of YOUNGO, the official youth constituency of the UNFCCC, which includes members up to age thirty-five.

At the global level, youth participation is visible at the conferences of the parties (COPs) to the UNFCCC. Unlike the Fridays for Future movement, which arose in the late 2010s, youth have participated in COPs since the first one in 1995: youth environmental organizations such as Nature and Youth (Norway) and Young Energy Specialists and Development Cooperation (the Netherlands) attended COP1. The number of youth organization participants and youth delegates of governments and international organizations has gradually increased, with momentum through the formal recognition of a youth constituency (YOUNGO) at COP15 and the growth of youth climate movements.³

The increasing presence of youth in global climate politics has drawn scholarly attention. Thew (2018) and Thew et al. (2020) examined self-perceived agency and justice claims making of youth at COPs. Ethnographic investigations by MacKay et al. (2020), Thew et al. (2022), Ortiz et al. (2024), Kang et al. (2024), and Bullon-Cassis (2025) provide in-depth insights into the lived experiences of youth participants in COPs. Other scholars highlight systemic barriers in the UNFCCC system that hinder meaningful youth involvement (Buhre and Josefsson 2024; Marquardt et al. 2024; Thew et al. 2021). While these previous studies offer valuable perspectives, they largely conceptualize youth as individual actors or organizational representatives. Thus it remains unclear how youth actors coordinate across organizations.

This knowledge gap is problematic because networks are essential political assets for youth in international environmental politics. Without formal mandates in negotiations, the majority of youth participants utilize their personal and organizational networks to access conference spaces, share information, amplify voices, coordinate action, and build capacity during negotiations. While this is a common practice for nonstate actors (Nasiritousi et al. 2016), networks are especially vital for youth actors, who have relatively less financial and logistical capacity (YOUNGO 2023). Furthermore, the increase of youth participants and their political significance calls for more systematic and holistic analyses of their participation. By focusing on the networks of youth participants through time rather than on a limited number of youth representatives, this study advances a more

³ By youth climate movements, we mean the diverse actions organized by youth across governance levels. In the context of the UNFCCC process, the youth climate movement refers to the actions performed by nonstate youth actors, including youth-led and youth-serving organizations.

structural and relational understanding of youth engagement, complementing current attention to a limited number of youth individuals.

More precisely, this article asks, With whom have youth actors interacted within international climate governance, what network structures have emerged from these interactions, and how do these networks reflect youth agency defined as the “capacity to actively (trans)form international politics” (Orsini et al. 2024, 5)? To answer these questions, we apply a social network analysis (SNA) framework to analyze youth organizations that attended climate COPs from COP1 to COP27. This way, this study contributes to the historical mapping of youth participants’ networks in climate COPs, providing a broader picture of youth actors. Moreover, it contributes to the ongoing discussion about whether and how youth actors in global climate governance have agency. Such agency is exercised not only through decision-making but also through social power, which shapes access to networks, participation structures, and collaborations in global climate governance (Nasiritousi et al. 2016).

The next section reviews the literature on youth climate movements and on transnational nonstate actor networks, which together provide the conceptual ground for analyzing youth networks in the UNFCCC process. The methods are then presented, followed by the historical evolution of youth participation in COPs and their social networks using two proxies: coaffiliation and co-organization of side events. We then open a discussion and conclude.

The Social Networks of Nonstate Actors in International Relations

Networks as an Essential but Missing Lens for Youth Climate Movements

Youth participation in international climate politics is grounded in the legacy and ongoing momentum of broader environmental and youth movements. Since the inception of the COPs, most youth participants have engaged primarily as observers affiliated with NGOs. As other participants, to follow COP summits that are mega-events gathering thousands of delegates, youth participants have interacted with other nonstate actors within social networks.

A social network is commonly defined as “a set of nodes (or network members) tied by one or more types of relations” (Marin and Wellman 2011, 11; Wasserman and Faust

1994). It is formed under certain conditions, creating dynamics among its members. Not only material resources but also nonmaterial ones, such as values, norms, rules, and expectations, are generated and circulated among network members (Knoke and Yang 2020). The constraining and enabling dimensions of patterned relationships, which are not easily captured by studying individual attributes or characteristics, are the main focus of the network approach (Emirbayer and Goodwin 1994; Ward et al. 2011). By analyzing such patterns and regularities (Wasserman and Faust 1994), SNA helps infer power dynamics.

When applied to social movement analysis, SNA informs us about the characteristics of certain social movements, including the collective identities of networked actors and the strategies of collective action (Krinsky and Crossley 2014). The literature is rich with in-depth studies on how social networks play a central role in social movements. Scholars have used SNA to examine the extent to which collective action depends on relational mechanisms like shared memberships (Fisher and Nasrin 2021), interorganizational collaboration (Diani 2003; Saunders 2007), and a common agenda (Bearman and Everett 1993; Murdie and Davis 2012). These studies have shown that network structures facilitate coordination and identity formation and diffuse frames, strategies, and resources across social movements.

SNA has been widely applied in studies of environmental movements, offering important insights into how collective action is structured. In her seminal work on transnational climate activism, Hadden (2015) demonstrates how network ties among civil society organizations facilitated the diffusion of contentious frames, action forms, and tactics in the years leading up to COP15. Similarly, Di Gregorio's (2012) study of environmental activism in Indonesia shows that dense communication networks can foster ideational bonds. At the same time, Di Gregorio argues that network density is largely shaped by value homophily among organizations. This conclusion is aligned with findings from Saunders (2007), who examines environmental organizations in London. She shows that conservationist groups were structurally separated from local environmental movements, despite operating in the same domain. Importantly, however, such network configurations are not static. Revisiting the London case two decades later, Saunders et al. (2025) find that movement networks evolve over time in response to changing perceptions, status, and tactics. Ferro's (2025) analysis of Fridays for Future in Italy

illustrates that copresence in meetings and repeated interaction can mitigate fragmentation among groups with divergent ideological positions.

Despite SNA's utility, it has rarely been taken up by studies of youth climate movements. The few existing studies deal with the online networks of youth movements. For instance, Belotti et al. (2022) and Terren and Soler-i-Martí (2021) analyze local youth activists' networks and online strategies, respectively. Nasrin and Fisher (2021) explore how US youth climate activists use hashtags to reveal their collective identity formation. Twitter (now X) and Instagram data have also been investigated to explore youth climate activists' bridging strategies (Kolleck and Schuster 2022), their normative framework (Nisbett and Spaiser 2023), and their profile and issue framing (Kang and Orsini 2023). Ferro's (2025) analysis of the social network of local groups within the Fridays for Future in Italy is among the very few studies that focus on youth activists' offline networks. However, except for Kolleck and Schuster (2022) and Nisbett and Spaiser (2023), previous studies have focused on national or subnational levels, leaving the international-level offline networks yet to be explored.

The limited application of SNA to youth in the international climate policy process can be attributed to the historically low attention paid to youth actors within international relations generally and global environmental politics specifically. However, growing participation of youth in environmental governance justifies developing a more systematic approach. In this context, SNA provides a suitable framework for examining youth in the UNFCCC process, as it captures the relations through which youth have engaged in international climate politics since the early COPs, beyond institutional constraints. Identifying the types of networks developed by youth enables an understanding of the relational patterns that shape their agency in international climate politics.

Types of Networks in Global Politics

Social networks in international relations often take the form of communities connecting different actors more densely. Detecting communities, defined in SNA as "a group of network nodes, within which the links connecting nodes are dense but between which they are sparse" (Yang et al. 2010, 331), is one key method to understand the characteristics of social networks. Network communities can shape the patterns of coordination,

collaboration, and information exchange among actors (Diani 2000), defining different types of networks. We build on the literature on transnational nonstate actor network types to understand network communities of youth at UNFCCC COPs.

Globalization has exacerbated the creation of transnational networks. Particularly, multilateral environmental agreements such as the UNFCCC have seen an exponential growth of nonstate actor networks developing around agreement making (Hughes and Vadrot 2023). As a result, international relations scholarship, embedded in transnationalism, has identified different network types. Prominent ones are transnational advocacy networks (TANs) (Keck and Sikkink 1998), networks of (second-generation) direct activism (Bennett 2005), and global civil society networks (Betsill and Bulkeley 2004).

TANs are networks of actors bound together primarily by shared values. Keck and Sikkink (1998, 1) define them as “networks of activists, distinguishable largely by the centrality of principled ideas or values in motivating their formation.” TANs tend to concentrate on highly value-based content, such as human rights and environmental issues (Tarrow 2001). Through the network experience, actors learn strategies and frames from their peers within TANs (Hadden and Jasny 2019).

By contrast, Bennett (2005) describes “second-generation direct activism” networks as large-scale, loosely interconnected, and multi-issue networks. NGO policy networks or transnational NGOs are often embedded in such networks, but the participation of diverse unconventional organizations and individuals broadens the scale and flexibility of the networks. They self-organize thanks to information and communication technologies and embrace a flexible identity: advocating multiple issues or pursuing multiple goals (Bennett 2005). In those networks, transnational NGOs that used to serve as focal points (Smith 1998) often have less significant roles.

A third perspective conceptualized by Lipschutz (1997) is that transnational networks form a “global civil society,” which manifests as global governance beyond state-centric politics. Individuals and organizations within such networks see that problems cannot be dealt with only by states but must be addressed by diverse actors at different scales (Betsill and Bulkeley 2004). These networks aim to change the dominant discourses, moral codes, and knowledge to solve global issues (Betsill and Bulkeley 2004; Wapner

1995). In contrast to the networks mentioned earlier, global civil society networks do not necessarily target states for policy change but aim to directly change politics by creating new dynamics.

These ideal types provide useful analytical benchmarks. They are particularly relevant in the case of youth participation in COPs, where a large number of nonstate actors, including youth, are active in forming diverse networks in parallel to the formal decision-making process (Hadden 2015). This study examines youth communities at COPs and the extent to which they display the characteristics of one or more network types of transnational nonstate actors' networks. Also, recognizing that social networks are dynamic rather than static (Doreian and Stokman 1997; Saunders et al. 2025), we pay particular attention to network evolution over time.

Methodology: Identifying Youth Networks in International Climate Politics

Data Collection: Youth Participation in Climate COPs

SNA is based on a "finite set or sets of actors" that have relations with each other (Wasserman and Faust 1994, 20). The set of actors can be built through realist or nominalist approaches. Although the realist approach follows actors' own interpretations of their connections, the nominalist approach relies on researchers' theoretically informed constructs (Saunders 2007). Given our focus on the long-term development of youth networks from COP1 to COP27, we adopt a nominalist approach.

To capture youth participants as comprehensively as possible, we collected data through multiple sources. First, we built an inventory of youth participants at COP1–27 using the official participant lists, which included names, affiliations, subaffiliations, and titles. Because these lists may miss last-minute changes, we complemented them using the *Earth Negotiations Bulletin* published by the International Institute for Sustainable Development, which presents reliable summaries of COP negotiations.

We then used keywords to identify youth actors within these records. Youth-related keywords including "youth," "young," "child," "jeune," "joven," "student," "estudiant," "étudiant," "scout," "girl," "boy," and "kid" were used to identify organizations or participants that have connections to youth. We applied these keywords to all record descriptions (including subaffiliations and positions) to include all youth-related

participations. This way, youth participants from parties, NGOs, and intergovernmental organizations were detected. To include youth participations lacking youth-related keywords, we compiled the lists of organizations accredited to the UNFCCC Secretariat and to the UNEP under the youth constituency and those affiliated with YOUNGO in 2019 and traced their COP attendance. This strategy maximized the coverage of youth-related organizations, although we acknowledge that it might have missed some, resulting in a smaller number of networked entities in our analysis.

As all COP attendees must register through an organization, we processed data at the organizational level. We coded the most prominent organizations in our empirical results as youth led,⁴ youth serving, and other organizations based on the information from their websites. The distinction between youth led and youth serving distinguishes organizations that “are youth” from organizations that “speak in the name of youth” and, therefore, characterize the nature of youth representation (direct or by third party) in international climate processes.

Finally, we conducted seven semistructured interviews at COP28 with individuals from central organizations found in our SNA results. Although SNA can detect communities quantitatively, the motivation and effectiveness of communities depend on their context of formation, which requires qualitative investigation. The strategically selected interviews therefore aimed to collect details on network formation and triangulate SNA data (Paterson 2023). All interviewees provided informed consent. An anonymized list of interviewees can be found in the appendix.

Data Processing: Identifying Network Ties

Two proxies were developed to measure ties among youth organizations: coaffiliation and co-organization of side events. This two-level network analysis helps understand the dynamics of youth actors from different angles (Morin et al. 2017) and reflects the modes of action frequently utilized by nonstate actors in the UNFCCC processes (Thew 2018).

⁴ A youth-led organization is an “organization . . . predominantly governed and staffed by young people” (Youth Action 2012). In the UNFCCC negotiations, *youth* is defined as an individual younger than age 35.

The first proxy, coaffiliation, captures the connection between host organizations and suborganizations that, while distinct entities, attend the COPs under the same institutional affiliation. Because conference attendance is essential for nonstate actors to increase access to decision-making, many NGOs lacking formal accreditation seek to find opportunities to attend the COPs under another organization's affiliation. For youth NGOs in particular, limited administrative and financial resources make access badges from other organizations especially valuable (Orsini and Kang 2023). As badge sharing needs mutual agreement, we consider coaffiliation as a proxy for collaboration.

We collected coaffiliation data from the official lists of participants. When participants belonged to multiple suborganizations, each was coded separately. Edge weights reflect the number of youth participants attending COPs with the same organization *and* suborganization format. The network is directed, with the suborganizations as sources and the host organizations as targets.

The second proxy, co-organization of side events at COPs, reflects a higher level of collaboration than coaffiliation, as it requires active coordination and partnership for the preparation of events. Although outside the formal negotiation process, side events provide arenas where new negotiation items are introduced, a shared vision is created, and actors are interconnected (Hjerpe and Linnér 2010; Schroeder and Lovell 2012). Thus nonstate actors are active in utilizing those events.

We retrieved side events' programs from the UNFCCC online archive⁵ and included all events co-organized with youth organizations in our database. Nodes (network members) consist of all organizations collaborating with youth-related organizations. Edges represent co-organization frequency. As there is no hierarchy among co-organizers, this network is undirected.

We analyzed both proxies using degree and betweenness centralities. Degree centrality ranks nodes by weighted degrees, showing which youth organizations most actively collaborate. Betweenness centrality counts the shortest paths intermediated by each node, capturing its brokerage roles and the network power that link otherwise disconnected nodes.

⁵ See <https://seors.unfccc.int/seors/reports/archive.html>, last accessed May 15, 2026.

Community detection was also used. The communities may reflect communities of practice, where organizations share concerns and visions on climate politics. The Louvain algorithm was used for its accuracy and suitability for small- N networks (Blondel et al. 2008; Yang et al. 2016). Coding was processed in Excel and visualized in Gephi.

In addition, we used a series of Exponential Random Graph Models (ERGMs) to assess whether youth-led groups exhibit distinctive patterns of collaboration compared to other actors. ERGMs are used to statistically infer the structural processes behind a certain network (Lusher et al. 2013). R was used to estimate ERGMs for co-organization, but the method was not applied for coaffiliation owing to resource constraints.

Given the dynamic nature of social networks, we examined their evolution by dividing the analysis into three periods, each marked by key turning points in youth engagement. First, COP21, held in Paris, represents a major institutional milestone not only of international climate governance but also for youth participation. Our data (Figure 1) confirm that the number of youth participants has exceeded 500 since COP21. Second, the Fridays for Future movement gave high visibility to youth climate movements, increasing youth presence at climate COPs. Accordingly, we structured our analysis into three periods: pre-Paris Agreement (COP1–20), post-Paris to Fridays for Future (COP21–24), and post-Fridays for Future emergence (COP25–27). This periodization allows us to assess how youth engagement networks evolve in response to both institutional and grassroots shifts.

Results: The Growing Social Networks of Youth at Climate COPs

Historical Overview of Youth Participation

Youth participation at COPs has gradually increased since COP1 (Figure 1). Across COP1–27, 10,516 youth participants from 916 organizations⁶ attended COPs. In terms of status, NGOs take the largest share overall. This can be partly explained by the general increase in NGO participation (Bäckstrand et al. 2017). However, the number of youth participants has not just followed the general tendency. Particularly, the significant increase in youth participation observed at COP11 is linked to the first formal gathering of youth participants

⁶ The national and local branches of international NGOs, belonging to the same core organization were coded as one unique organization.

at a COP (YOUNGO 2023). Also, the number of youth participants substantially increased at COP21. Finally, the surge at COP26–27 suggests an impact of the Fridays for Future movement and its contribution to the institutionalization of youth participation in state delegations (party affiliation).

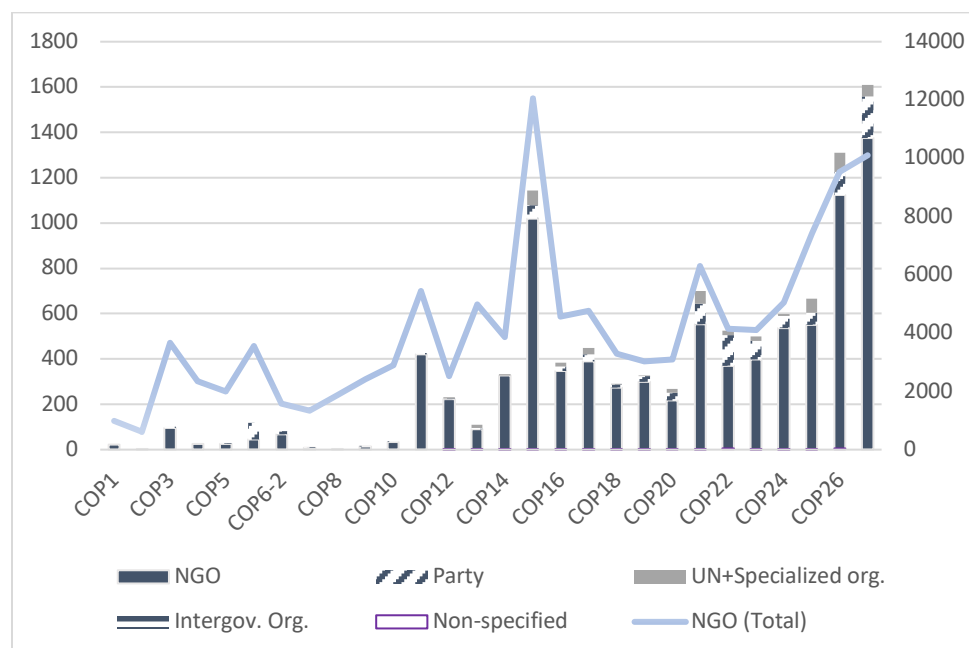


Figure 1
Youth Participants at UNFCCC COPs by Registration Status

The stacked columns (left axis) show the number of individual youth participants per COP, while the line (right axis) represents the total NGO participants. Note: The official participant lists for COP2 and COP5 lacked statistical data. The data for these two COPs are based on information available on the UNFCCC website.

Notably, the most frequently attending and largest organizations are largely youth-led, confirming that youth interests are represented by youth with clear involvement of young people (Tables 1 and 2). Most of those organizations are located in the Global North, having more resources to support delegates at international conferences than those in the Global South. This finding reaffirms Marquardt et al.'s (2024) conclusion that the majority of the organizations registered to YOUNGO are based in the Global North.

Table 1**Most-Present Youth Organizations in the UNFCCC COP1–27**

<i>Organization</i>	<i>Location</i>	<i>Establishment Year</i>	<i>COP Attendance</i>	<i>Type</i>
International Forestry Students' Association	Germany	1973	19	Youth-led
International Youth and Student Movement for the United Nations (ISMUN)	Uncertain	1948	15	Youth-led
TakingITGlobal	Canada	2000	15	Youth-led
University of California ^a	United States	1868	15	University
World Future Council	Germany	2007	15	Youth-serving
Young Energy Specialists and Development Cooperation	Netherlands	1994	14	Youth-led
Jeunes volontaires pour l'environnement (JVE)	Togo	2001	13	Youth-led
World Alliance of Young Men's Christian Associations (YMCA)	Geneva	1844	13	Youth-serving

^aWe coded only those who attended with titles related to youth (see earlier).

Table 2**Youth Organizations with the Largest Youth Delegations to UNFCCC COP1–27**

<i>Organization</i>	<i>Location</i>	<i>Establishment Year</i>	<i>Total Delegates</i>	<i>Type</i>
Yale Student Environmental Coalition	United States	1986	355	Youth-led
SustainUS	United States	2001	254	Youth-led
Environnement Jeunesse	Canada	1979	224	Youth-serving
TakingITGlobal	Canada	2000	221	Youth-led
Actions Vitales pour le Développement durable (AVD)	Cameroon	Uncertain	216	Youth-led

Overall, this historical development reveals that youth have been persistent in building their representation at the international level. Even before YOUNGO was formally

established, youth-led organizations (although mostly from the Global North) actively attended COPs. The peaks of youth participation indicate that youth participation is also contingent on distinct political dynamics. We now turn to how youth organizations are networked.

Youth-Driven Networks Through Coaffiliation

The coaffiliation network (1,498 organizations; 3,162 ties)⁷ reveals that many youth-led organizations are structurally central, with most of their degrees as in-degree (Table 3): these organizations actively provide accreditation for youth from other organizations, facilitating youth access to the climate negotiations.

For example, the Yale Student Environmental Coalition has ties mainly with other US universities and is ranked high in both degree and betweenness centralities, indicating not only broad connections but also a key bridging role for otherwise disconnected youth groups. Interviewees explained that this centrality reflects their collaboration strategy. One of their representatives detailed, “We want to make sure that as many people as possible have an opportunity to come and voice here [COP]” (interviewee 3). Another emphasized that badges are given not only to their members but also to a small number of other international activists whose work directly forwards the organization’s mission (interviewee 5), confirming a high network in-degree.

Similarly, JVE has a high number of ties mainly with African youth organizations, appearing as a central organization in the region. JVE representatives confirmed supporting other organizations when having the capacity: “If you are in some youth organization, have received a grant or something to be there [COP], and you need accreditation, we open it [accreditation]. We say, OK, we have some badge[s]. We accredit people that are not [our] members, but they are youth. They are from African countries, so why not?” (interviewee 1). This clarifies the mechanism behind JVE’s centrality.

Table 3

⁷ We excluded 345 organizations that did not host suborganizations. This does not mean that they are not significant; rather, they are not used as main entry points by others. The second proxy on side events complements this proxy by including them.

Top Ten Organizations by Degree and Betweenness Centralities in the Coaffiliation Network

	<i>Weighted Degree Centrality</i>	<i>Betweenness Centrality</i>
1	Climate Network Africa	JVE^a
2	Yale Student Environmental Coalition^a	Yale Student Environmental Coalition^a
3	Friends of the Earth International	Abibimman Foundation
4	JVE^a	Yale University
5	Canadian Youth Delegation ^a	Faith Association of the Rehabilitation of Street Children and Orphans
6	Fridays for Future ^a	Kejibaus Youth Development Initiative
7	Young Friends of the Earth ^a	SustainUS ^a
8	Environnement Jeunesse ^a	UNICEF
9	Plant for the Planet Foundation ^a	University of Minnesota
10	UNICEF	Cameroon

Organizations detected in both centralities are in bold.

^aYouth-led organization.

Although Fridays for Future is not officially admitted to the UNFCCC, it still appears central in the youth network. The SNA identifies its collaborations with various organizations, including Climate Action Network International and UNICEF. Interviewees from Fridays for Future confirmed reaching out collectively to accredited NGOs in their own country to secure badges and funding (interviewees 4 and 7). These accounts clarified that increasing youth participation at COPs is proactively shaped by youth themselves.

Notably, four of the top ten organizations in the betweenness centrality rank are African youth-focused NGOs (i.e., JVE, Abibimman Foundation, Kejibaus Youth Development Initiative, and Faith Association of the Rehabilitation of Street Children and Orphans). This result indicates the active bridging efforts of Global South youth organizations between local and international climate politics.

The analysis of the coaffiliation network communities shows the clear coordinating role of youth-led organizations within the youth network. Four of the eight biggest communities in the aggregated data have youth-led organizations at their center, namely, the Yale Student Environmental Coalition, the Canadian Youth Delegation, Fridays for Future, and JVE (Figure 2). When zooming in, we observe a tendency for NGOs and parties

from the same country or region to constitute a community. Issue affinity among community members was detected, but geographical proximity was stronger within communities.

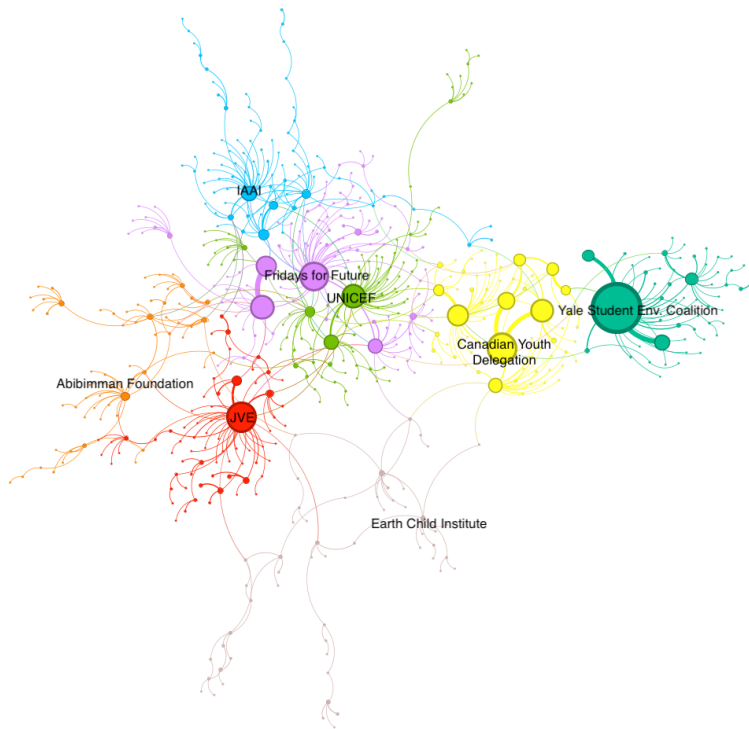


Figure 2

Aggregated Data of the Eight Biggest Coaffiliation Network Communities Formed by Youth at Climate COPs

Different colors differentiate communities within each network. The size of the dots is proportional to their weighted degree. The organizations with the highest degree within each community are labeled.

Over time, the central organizations in different communities have diversified. Between COP1 and COP20, a few environmental and youth-led NGOs with large centrality degrees were at the center of communities, sharing registration capacity with smaller, nonaccredited organizations in their respective regions. In the subsequent period (COP21–24), more diverse youth-led and youth-serving organizations appeared at the center of diverse communities. Some parties, including Canada and Gambia, had large degrees, as they provided accreditation for other youth organizations primarily from their own

country or region. In the last period of COP25–27, two organizations were particularly prominent regarding weighted degrees: UNICEF and Fridays for Future. While UNICEF formed a community by providing participation opportunities to youth organizations, Fridays for Future created a community by coaffiliating with diverse accredited organizations. This shift suggests an increasing institutionalization of youth engagement and the influence of youth climate protests on formal climate politics.

Network Through Co-organizing Side Events: The Evolving Collaboration of Youth

The side-event co-organization network (196 organizations with 496 ties) displays a different structure (Table 4). International organizations have a high degree of centrality, implying frequent collaboration with youth organizations. In contrast, youth-led and youth-serving NGOs such as the Earth Child Institute, the UK Youth Climate Coalition (UKYCC), and the World Association of Girl Guides and Girl Scouts (WAGGGS) dominate betweenness centrality, implying that youth NGOs play an active role as bridge organizations. This contrast of degree and betweenness centrality indicates that although UN agencies may be connected to many events, they do not function as brokers within the network. Instead, many youth NGOs act as key brokers, linking diverse actors who might not collaborate otherwise. This suggests that youth agency is exercised not only by organizing events but also by creating collaboration among different actors.

Table 4

Centrality Comparison for Side-Event Co-organization

<i>Rank</i>	<i>Weighted Degree Centrality</i>	<i>Betweenness Centrality</i>
1	UNICEF	Earth Child Institute
2	FAO	UKYCC ^a
3	UNEP	WAGGGS
4	YOUNGO ^a	UNICEF
5	ILO	Glocha
6	ISMUN ^a	Earth Day Network
7	UNESCO	CliMates ^a
8	International Organization for Migration (IOM)	Greener Impact International

9	United Nations High Commissioner for Refugees (UNHCR)	AVD ^a
10	Office of the United Nations High Commissioner for Human Rights (OHCHR)	FAO

Organizations detected in both centralities are in bold.

^aYouth-led organization.

Compared to the coaffiliation network, the co-organization network shows fewer youth-led organizations in central positions in terms of degree and betweenness centralities. Does this mean that youth-led organizations have fewer roles in shaping collaborative initiatives for side events? To investigate the roles of youth-led organizations in community forming more systematically, we develop a series of ERGMs. This helps assess whether certain organizations are more or less likely to collaborate.

Table 5 presents ERGM estimates for the three periods. Model 1 tests whether youth-led organizations are more active in forming ties than others. Model 2 evaluates homophily, capturing whether youth-led organizations preferentially collaborate with each other. Model 3 examines mixing patterns between youth-led and other organizations. Coefficients represent the change in the log-odds of tie formation: positive values indicate a higher likelihood of collaboration, and negative values indicate a lower likelihood. The edges represent the baseline for all the organizations within the network, except that model 3's baseline is the log-odds of ties between non-youth-led organizations.

The results reveal a clear evolution in the collaborative behavior of youth-led organizations: in the early period (COP1–20), youth-led organizations occupy peripheral positions, showing a low level of engagement; in the following period (COP21–24), however, youth-led organizations expanded ties, engaging significantly more with other types of organizations. In the late period (COP25–27), youth-led organizations exhibit strong collaboration among themselves, suggesting the formation of more cohesive youth-centered communities. They also became more active in forming ties. Overall, the ERGM results show a transition from peripheral involvement to active cross-actor collaboration, followed by increased collaboration among youth-led groups.

Table 5

ERGM Estimates for Co-organization Networks in the Three Periods

<i>Model/Period</i>	<i>COP1–20</i>	<i>COP21–24</i>	<i>COP25–27</i>
Model 1: Activity			
Edges	–2.22 (0.15)***	–3.24 (0.22)***	–3.03 (0.07)***
Youth-led ties	–0.22 (0.15)	0.32 (0.19)†	–0.56 (0.10)***
Model 2: Homophily			
Edges	–2.31 (0.14)***	–2.72 (0.17)***	–3.76 (0.10)***
Youth-led collaboration	–0.16 (0.21)	–0.54 (0.27)*	0.70 (0.12)***
Model 3: Mixing			
Edges (Other—Other)	–2.30 (0.17)***	–3.48 (0.28)***	–3.00 (0.07)***
Youth-led—Other	–0.01 (0.22)	0.76 (0.33)*	–0.76 (0.12)***
Youth-led—Youth-led	–0.60 (0.35)†	0.58 (0.42)	–0.64 (0.23)**

Coefficients are log-odds and standard errors in parentheses. Most significant figures are in bold.

† $p < 0.10$. * $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.**Discussion**

This research analyzed two social networks of youth actors at climate COPs to understand the structural trends of youth participation in international climate politics. SNA was used to provide an overview of youth collaboration behavior and of the dynamics beneath the surface. In this section, we discuss characteristics and identify types of these networks to uncover collective identities and mobilization strategies.

Youth-Led Organizations Demonstrate Agency

Who are at the center of youth networks? Despite limited resources, youth-led groups appear particularly dynamic. The coaffiliation network shows that they are active in badge sharing to support youth participation in COPs. In doing so, they play the role of brokers between youth in formal and informal climate politics, supporting broader participation of youth.

The evolution in the collaborative behavior of youth-led organizations detected in the co-organization network also shows that youth have become increasingly active in

collaboration to deliver a stronger message through side events. The diachronic analysis confirms that youth-led organizations have been increasingly dynamic: the number of youth participants and youth-led side events has grown substantially, and youth-led organizations have become more active in youth networks in later COPs.

The findings support a view of youth holding agency in international climate politics, not just being predefined actors, such as victims, risks, or potential (Orsini et al. 2024). Indeed, youth have made efforts to challenge the stereotype of them being passive victims of ongoing environmental changes (Marquardt et al. 2024). Our analysis reaffirms that youth agency efforts have lasted for a long time already, starting even before the heightened attention to youth climate movements and their agency in the late 2010s. Youth actors have been persistent in making efforts to contribute meaningfully to the climate political spaces, being active cocreators of networks.

Moreover, the high centrality of several youth-led organizations from the Global South in the coaffiliation network indicates the proactive role of these actors. In the uneven spatial politics for youth from the Global South (Ortiz et al. 2024), Global South organizations share badges with local groups to maximize youth participation opportunities. We confirm insights from a previous study conducted by Kang et al. (2024), which showed the active yet underrecognized role of Global South youth in international climate politics. Global South youth to some extent manage to challenge the colonial-legacy and global-inequality barriers posed to their participation in climate COPs (Buhre and Josefsson 2024).

These findings contribute to the literature on nonstate actors' agency in global climate governance. Whereas Hadden (2015) demonstrates agency through the diffusion of contentious practices among environmental NGOs, we identify a different form of agency exercised by nonstate actors: in the UNFCCC process, youth actors exercise agency by mediating relationships with other nonstate actors. Their social power is substantial, as it increases access to governance (through coaffiliation) and creates agenda-setting and interaction opportunities (through side-event co-organization).

Mixed Types of Social Networks

Neither the coaffiliation nor the co-organization network can be classified into one of the transnational network types, namely, TANs, direct activism networks, or global civil society networks. Instead, the identified networks have mixed characteristics.

In the coaffiliation network, both TANs and second-generation direct activism are present, reflecting a blend of issue alliances and more fluid, goal-diverse communities. While some communities are grounded in issue affinity and established relationships, others consist of organizations with varying identities and agendas. Youth-led organizations actively network with nonyouth organizations when needed. Yet, those dissimilar organizations share the idea that youth participation in climate politics should be encouraged, as can be seen in the practice of badge sharing. In contrast, the co-organization network is characterized by more formalized collaboration, bringing together TANs and global civil society networks with more closely aligned strategic objectives. These networks are more directly oriented toward influencing negotiation outcomes through the side events, with several UN bodies and youth-led organizations playing facilitative roles.

Overall, youth networks appear pragmatic and flexible depending on their needs and goals, not driven by a certain collective identity when networking with others. While the flexibility indicates the networks' commonality with direct activism networks described by Bennett (2005), the presence of issue-bound communities makes it difficult to classify those networks neatly with a type. The communities within the coaffiliation network are primarily bonded by nationality and geographical proximity, whereas similar organizational characteristics and objectives bond the communities of the co-organization network.

These findings extend existing scholarship on youth in international climate politics on several grounds. First, we show that youth networks evolve beyond the scope of YOUNGO, which Thew (2018) described as a TAN. Acknowledging the importance of extensive networks at climate COPs (Yona et al. 2020), youth make flexible and loose networks with diverse organizations, including nonyouth actors. This way, they directly surf and engage international negotiation processes by utilizing all possible participation modes, as Thew (2018) already observed. Moreover, previous studies have repeatedly pointed out the resource constraints (financial and administrative) faced by youth

attending international conferences (Holzscheiter et al. 2025; Marquardt et al. 2024; Orsini and Kang 2023). Our study shows that youth utilize social networks as an alternative way to overcome such constraints, at least at the organizational level. In particular, such networks are useful for local youth groups with limited capacity to apply for UNFCCC accreditation or organize side events.

The findings also reaffirm the increasing heterogeneity of youth actors (Bullon-Cassis 2025). We show that while most youth participants were affiliated with large environmental or youth organizations from the Global North in early COPs, more and more participants are affiliated with diverse organizations and origins. Particularly, there has been a substantial diversification of organizations with youth participants since the Fridays for Future movement.

Institutionalizing Youth Participation

The youth networks at climate COPs show continuing efforts by youth to institutionalize their participation, beyond YOUNGO. Indeed, YOUNGO, the official constituency, does not guarantee financial or administrative support for youth participation. Moreover, the coaffiliation network indicates that youth have endeavored to bring all youth climate movements to the formal process of international climate negotiations: youth actors from nonaccredited organizations seek opportunities to attend climate conferences by collaborating with parties and accredited organizations.

This finding reaffirms previous studies on the strategies of youth to institutionalize their movements in formal policy processes to achieve their goals (Kwon 2025). Thew et al. (2021) observed that YOUNGO members actively pursue “pink badges,” given to governmental delegates, holding the belief that obtaining a party status is the best way to engage in climate politics. Such efforts stem from lived frustration that structural constraints within the UNFCCC system hinder meaningful youth participation (Marquardt et al. 2024; Thew et al. 2021; Yunita et al. 2018).

Indeed, social movement institutionalization is frequently observed in contemporary societies due to the needs of both sides (i.e., activists and powerholders) (Giugni and Passy 1998; Suh 2011): formal organizational participation may help social movements perpetuate, and the professional and specialized knowledge of activists may be

utilized for influencing states. Although the increasing number of youth participants does not mean that youth may influence the negotiations directly, our observation confirms that youth are becoming stronger at engaging in international policy processes through diversifying their participation pathways and networks. Also, recent developments, such as the Youth Pavilion, the COP27 Youth Envoy, and decisions that refer to the importance of youth participation, illustrate the gradual recognition of youth agency in UNFCCC processes (YOUNGO 2023).

Conclusions

This article examined the historical involvement of youth at the UNFCCC COPs and analyzed youth networks. We found that youth participation is embedded in mixed network types that defy clear classification within the transnational network literature. The varied identified communities show that youth pursue diverse mobilization strategies in accordance with their geographical proximity and resource needs, not necessarily involving ideational affinity. Moreover, despite structural inequalities, youth-to-youth collaboration from both the Global South and the Global North to bridge informal and formal modes of engagement in climate politics is observed, asserting youth agency in international climate politics. The increasing connection with parties and international organizations in both coaffiliation and co-organization networks indicates continuing efforts to institutionalize youth participation.

Our findings have implications for those interested in increasing youth participation in global climate politics. We show that while youth networks expand participation opportunities, they also somehow reproduce structural inequalities: access remains uneven across regions, and participation often depends on existing network connections. Interventions aimed at supporting youth participation may be attentive to network inequalities. In being so, recognizing brokerage organizations' role in youth networks could help widen access to youth more effectively.

From a scholarly perspective, our findings demonstrate the value of relational approaches of nonstate actors in global governance. Network analysis reveals how participation is structured through different types of ties. This suggests fruitful avenues for future research on other nonstate actor groups in international negotiations.

It would be an overstretch to conclude that social networks alone would ensure inclusive participation of youth in global climate politics. On the contrary, our findings reveal the persistence of power asymmetries, as many youth have to rely on badge sharing because of limited access to formal policymaking spaces. Though social networks facilitate the effective participation of youth, they do not create direct decision-making power or reduce tokenistic approaches to youth in climate politics. A potential shift toward greater inclusion would be contingent on institutional reforms that ensure meaningful participation, and whether youth networks would lead to the adoption of such reforms remains to be answered by future research.

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References

- Bäckstrand, Karin, Jonathan W. Kuyper, Björn-Ola Linnér, and Eva Lövbrand. 2017. Non-state Actors in Global Climate Governance: From Copenhagen to Paris and Beyond. *Environmental Politics* 26 (4): 561–579.
- Bearman, Peter S., and Kevin D. Everett. 1993. The Structure of Social Protest, 1961–1983. *Social Networks* 15: 171–200.
- Belotti, Francesca, Stellamarina Donato, Arianna Bussoletti, and Francesca Comunello. 2022. Youth Activism for Climate on and Beyond Social Media: Insights from FridaysForFuture-Rome. *International Journal of Press/Politics* 27 (3): 718–737.
- Bennett, W. Lance. 2005. Social Movements Beyond Borders: Organization, Communication, and Political Capacity in Two Eras of Transnational Activism. In *Transnational Protest and Global Activism*, edited by Donatella Della Porta and Sidney Tarrow, 203–226. Rowman and Littlefield.
- Betsill, Michele M., and Harriet Bulkeley. 2004. Transnational Networks and Global Environmental Governance: The Cities for Climate Protection Program. *International Studies Quarterly* 48 (2): 471–493.
- Blondel, Vincent D., Jean-Loup Guillaume, Renaud Lambiotte, and Etienne Lefebvre. 2008. Fast Unfolding of Communities in Large Networks. *Journal of Statistical Mechanics: Theory and Experiment* 2008: P10008.
- Buhre, Frida, and Jonathan Josefsson. 2024. The Materiality of Youth Representation at Climate Summits: Navigating Barriers, Routes, and Spaces. *Globalizations* 22 (3): 426–440.
- Bullon-Cassis, Laura. 2025. A Game Show at the End of the World: The Currency of Youth in UN Climate Summitry. *Journal of Youth Studies* 28 (4): 637–654.
- Diani, Mario. 2000. Social Movement Networks Virtual and Real. *Information, Communication, and Society* 3 (3): 386–401.
- Diani, Mario. 2003. “Leaders” or Brokers? Positions and Influence in Social Movement Networks. In *Social Movements and Social Networks: Relational Approaches to Collective Action*, edited by Mario Diani and Doug McAdam, 105–122. Oxford University Press.
- Doreian, Patrick, and Frans Stokman. 1997. *Evolution of Social Networks*. Routledge.

- Emirbayer, Mustafa, and Jeff Goodwin. 1994. Network Analysis, Culture, and the Problem of Agency. *American Journal of Sociology* 99 (6): 1411–1454.
- European Parliament. 2019. 2019 European Elections: Record Turnout Driven by Young People. Available at: <https://www.europarl.europa.eu/news/en/press-room/20190923IPR61602/2019-european-elections-record-turnout-driven-by-young-people>, last accessed January 7, 2026.
- Ferro, Alice. 2025. Network Alliances Among Fridays for Future Local Groups in Italy: Relational Mechanisms in Action. *Politics and Governance* 13: 10026.
- Fisher, Dana R., and Sohana Nasrin. 2021. Shifting Coalitions Within the Youth Climate Movement in the US. *Politics and Governance* 9 (2): 112–123.
- Giugni, Marco G., and Florence Passy. 1998. Contentious Politics in Complex Societies: New Social Movements Between Conflict and Cooperation. In *From Contention to Democracy*, edited by Marco G. Giugni, Doug McAdam, and Charles Tilly, 81–107. Rowman and Littlefield.
- Hadden, Jennifer. 2015. *Networks in Contention: The Divisive Politics of Climate Change*. Cambridge University Press.
- Hadden, Jennifer, and Lorien Jasny. 2019. The Power of Peers: How Transnational Advocacy Networks Shape NGO Strategies on Climate Change. *British Journal of Political Science* 49 (2): 637–659.
- Hjerpe, Mattias, and Björn-Ola Linnér. 2010. Functions of COP Side-Events in Climate-Change Governance. *Climate Policy* 10 (2): 67–180.
- Holzscheiter, Anna, Jonathan Josefsson, Eva Lövbrand, and Laura Pantzerhielm. 2025. In-Between Worlds: The Unsettled Politics of Child and Youth Representation in International Institutions. *Globalizations* 22 (3): 343–357.
- Hughes, Hannah, and Alice B. M. Vadrot. 2023. A Broadened Understanding of Global Environmental Negotiations. In *Conducting Research on Global Environmental Agreement-Making*, edited by Hannah Hughes and Alice B. M. Vadrot, 1–22. Cambridge University Press.
- Kang, Yi hyun, Riham Helmy, and Amandine Orsini. 2024. Youth at International Climate Negotiations: Profile, Motivation, and Impacts. In *Youth Knowledge Book: Youth and*

- Democracy in the Climate Crisis*, edited by Jamie Gorman, Tomi Kiilakoski, Lana Pasic, and Esther Vallado, 71–85. Council of Europe.
- Kang, Yi hyun, and Amandine Orsini. 2023. A Multi-level Analysis of Youth Climate Activism in South Korea. In *National Identity and Millennials in Northeast Asia: Power and Contestations in the Digital Age*, edited by Vanessa Frangville, Thierry Kellner, and Frederik Ponjaert, 107–129. Routledge.
- Keck, Margaret E., and Kathryn Sikkink. 1998. *Activists Beyond Borders: Advocacy Networks in International Politics*. Cornell University Press.
- Knoke, David, and Song Yang. 2020. *Social Network Analysis*. SAGE.
- Kolleck, Nina, and Johannes Schuster. 2022. Youth Participation in Global Policy Networks on Climate Change. *International Journal of Educational Research* 114: 102002.
- Krinsky, John, and Nick Crossley. 2014. Social Movements and Social Networks: Introduction. *Social Movement Studies* 13 (1): 1–21.
- Kwon, Soo Ah. 2025. Institutionalizing Youth in the United Nations. *Globalizations* 22 (3): 394–409.
- Lipschutz, Ronnie D. 1997. Networks of Knowledge and Practice: Global Civil Society and Protection of the Global Environment. In *Saving the Seas: Values, Scientists, and International Governance*, edited by L. Anathe Brooks and Stacy D. Vandever, 17–33. A Maryland Sea Grant Book.
- Lusher, Dean, Johan Koskinen, and Garry Robins, editors. 2013. *Exponential Random Graph Models for Social Networks: Theory, Methods, and Applications*. Cambridge University Press.
- MacKay, Makenzie, Brenda Parlee, and Carrie Karsgaard. 2020. Youth Engagement in Climate Change Action: Case Study on Indigenous Youth at COP24. *Sustainability* 12 (16): 6299.
- Marin, Alexandra, and Barry Wellman. 2011. Social Network Analysis: An Introduction. In *The SAGE Handbook of Social Network Analysis*, edited by John Scott and Peter J. Carrington, 11–25. SAGE.
- Marquardt, Jens, Eva Lövbrand, and Frida Buhre. 2024. The Politics of Youth Representation at Climate Change Conferences: Who Speaks, Who Is Spoken of, and Who Listens? *Global Environmental Politics* 24 (2): 19–45.

- Morin, Jean-Frédéric, Selim Louafi, Amandine Orsini, and Mohamed Oubenal. 2017. Boundary Organizations in Regime Complexes: A Social Network Profile of IPBES. *Journal of International Relations and Development* 20: 543–577.
- Murdie, Amanda, and David Davis. 2012. Looking in the Mirror: Comparing INGO Networks Across Issue Areas. *Review of International Organizations* 7 (2): 177–202.
- Nasiritousi, Naghmeh, Mattias Hjerpe, and Björn-Ola Linnér. 2016. The Roles of Non-state Actors in Climate Change Governance: Understanding Agency Through Governance Profiles. *International Environmental Agreements: Politics, Law and Economics* 16: 109–126.
- Nasrin, Sohana, and Dana R. Fisher. 2021. Understanding Collective Identity in Virtual Spaces: A Study of the Youth Climate Movement. *American Behavioral Scientist* 66 (9): 1–23.
- Nisbett, Nicole, and Victoria Spaiser. 2023. Moral Power of Youth Activists—Transforming International Climate Politics? *Global Environmental Change* 82: 102717.
- Orsini, Amandine, and Yi Hyun Kang. 2023. European Leadership and European Youth in the Climate Change Regime Complex. *Politics and Governance* 11 (2): 84–96.
- Orsini, Amandine, Yi Hyun Kang, Emmanuel Ampomah, Adam Cooper, Laura Gómez-Mera, Brian Gran, Anna Holzscheiter, Roberto S. Salva, and Anaëlle Vergonjeanne. 2024. Forum: Youth as Boundary Actors in International Studies. *International Studies Perspectives* 26 (3): 299–334.
- Ortiz, Mark, Charles Mankhwazi, and Neeshad Shafi. 2024. “Who Is Going to Talk About My Grandad? Who Is Going to Talk About Me?”: Spatial Politics in the Advocacy of Youth from the MENA Region at COP 27. *Climate and Development* 16 (10): 929–938.
- Paterson, Matthew. 2023. Collecting Data for Social Network Analysis. In *Conducting Research on Global Environmental Agreement-Making*, edited by Hannah Hughes and Alice B. M. Vadrot, 228–246. Cambridge University Press.
- Saunders, Clare. 2007. Using Social Network Analysis to Explore Social Movements: A Relational Approach. *Social Movement Studies* 6 (3): 227–243.
- Saunders, Clare, Sam Nadel, and Bob Walley. 2025. It’s Not Just Structural: Political Context and London’s Environmental Networks Twenty-One Years Later. *Politics and Governance* 13: 10137.

- Schroeder, Heike, and Heather Lovell. 2012. The Role of Non-Nation-State Actors and Side Events in the International Climate Negotiations. *Climate Policy* 12 (1): 23–37.
- Smith, Jackie. 1998. Global Civil Society? Transnational Social Movement Organizations and Social Capital. *American Behavioral Scientist* 42 (1): 93–107.
- Suh, Doowon. 2011. Institutionalizing Social Movements: The Dual Strategy of the Korean Women's Movement. *Sociological Quarterly* 52 (3): 442–471.
- Tarrow, Sidney. 2001. Transnational Politics: Contention and Institutions in International Politics. *Annual Review of Political Science* 4: 1–20.
- Terren, Ludovic, and Roger Soler-i-Martí. 2021. “Glocal” and Transversal Engagement in Youth Social Movements: A Twitter-Based Case Study of Fridays for Future-Barcelona. *Frontiers in Political Science* 3.
- Thew, Harriet. 2018. Youth Participation and Agency in the United Nations Framework Convention on Climate Change. *International Environmental Agreements: Politics, Law, and Economics* 18: 369–389.
- Thew, Harriet, Lucie Middlemiss, and Jouni Paavola. 2020. “Youth Is Not a Political Position”: Exploring Justice Claims-Making in the UN Climate Change Negotiations. *Global Environmental Change* 61: 102036.
- Thew, Harriet, Lucie Middlemiss, and Jouni Paavola. 2021. Does Youth Participation Increase the Democratic Legitimacy of UNFCCC-Orchestrated Global Climate Change Governance? *Environmental Politics* 30 (6): 873–894.
- Thew, Harriet, Lucie Middlemiss, and Jouni Paavola. 2022. “You Need a Month’s Holiday Just to Get over It!”: Exploring Young People’s Lived Experiences of the UN Climate Change Negotiations. *Sustainability* 14: 4259.
- Wapner, Paul. 1995. Politics Beyond the State: Environmental Activism and World Civic Politics. *World Politics* 47 (3): 311–340.
- Ward, Michael, Katherine Stovel, and Audrey Sacks. 2011. Network Analysis and Political Science. *Annual Review of Political Science* 14: 245–264.
- Wasserman, Stanley, and Katherine Faust. 1994. *Social Network Analysis: Methods and Applications*. Cambridge University Press.

- Yang, Bo, Dayou Liu, and Jiming Liu. 2010. Discovering Communities from Social Networks: Methodologies and Applications. In *Handbook of Social Network Technologies and Applications*, edited by Borko Furht, 331–346. Springer.
- Yang, Zhao, René Algesheimer, and Claudio J. Tessone. 2016. A Comparative Analysis of Community Detection Algorithms on Artificial Networks. *Scientific Reports* 6: 30750.
- Yona, Leehi, Marc D. Dixon, Richard B. Howarth, Anne R. Kapuscinski, and Ross A. Virginia. 2020. Applying a Leverage Points Framework to the United Nations Climate Negotiations: The (Dis)empowerment of Youth Participants. *Elementa: Science of the Anthropocene* 8 (36): 433.
- YOUNGO. 2023. Youth Stocktake of UNFCCC Processes. Available at: <https://unfccc.int/documents/636004>, last accessed February 22, 2026.
- Youth Action. 2012. *Policy Paper: Youth-Led Organizations: Recruitment and Retention*. Youth Action.
- Yunita, Sekar A. W., Emma Soraya, and Ahmad Maryudi. 2018. “We Are Just Cheerleaders”: Youth’s Views on Their Participation in International Forest-Related Decision-Making Fora. *Forest Policy and Economics* 88: 52–58.

Appendix: List of Interviewees

Interviewee Code	Affiliation	Date
1	Jeunes Volontaires pour l’Environnement Niger	3/12/23
2	Jeunes Volontaires pour l’Environnement Togo	4/12/23
3	Yale Student Environmental Coalition	1/12/23
4	Fridays for Future MAPA	4/12/23
5	Yale Student Environmental Coalition	1/12/23
6	International Association for the Advancement of Innovative Approaches to Global Challenges	4/12/23

