NGO strategy, policy networks, and climate policymaking process in China

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This article examines the relationship between grassroots non-governmental organizations (NGOs) and the authoritarian state of China in terms of mobilizingpolicy changes in response to the climate crisis. It focuses on the advocacystrategy of NGOs and seeks to explain how NGOs in China use their expertise asthe entry point to establish policy networks with the country's most influential policymakers and experts. Greenovation Hub (G:hub) is the case study for this investigation. I used the policy networks framework to look into the interaction between G:hub and other experts. I discovered that mutually aligned policy objectives are the key for the effectiveness of NGOs' expert advocacy strategy ofconstructing policy networks within the expert community in China. Cooperating with other experts can help NGOs create an "insider" role for themselves. In addition, this research also discussed the conditions for NGO inclusion. I found opportunities and limitations linked to the alignment of NGOs' policy objectives with the state's vision for climate policy. The research conducted by NGOs also faced rejection if it failed to identify the state's priorities, highlighting the limitations of this approach. The significance of this finding is that the expertise strategy works for policy advocacy regardless of regime type, but that accessing policy networks are even more vital in a closed policymaking process. This case study further enhances the comprehension of the policy influence that NGOs have on the climatic effects of China's overseas development policies.

KEYWORDS

policy networks, climate policymaking, China, NGOs, civil society

1 Introduction

China's climate change policymaking process is conventionally believed to be a black box for outsiders. However, over the past decade, researchers have also found that China's climate governance structure is becoming more receptive and plural toward different stakeholders, and civil society actors in China are among them (Mertha, 2009; Gilley, 2012; Teets, 2013; Lo, 2015; Zeng et al., 2019). Some NGOs, by adopting an expert strategy, have been able to influence international climate policymaking on a global scale through contributing to technical and policy discourse, mediation with stakeholders, and other activities (Gough and Shackley, 2001, p.333). The issue of whether Chinese NGOs can adopt a similar approach to drive climate policy change in China is raised based on our empirical observations of international NGOs such as Greenpeace and the World Resources Institute (WRI) (Gough and Shackley, 2001, p.341–344). These organizations have effectively utilized their knowledge and expertise as a means to exert influence on climate and environmental policymaking at the global level.

The civil society sector in China is less developed and enjoys less freedom in terms of activity range than most of its foreign counterparts and NGOs functioning in democracies, which inhibits them from independently mobilizing for policy change. Thus, forging a cooperative relationship with the state become an appealing pathway for NGOs seeking to influence policymaking. Despite the fact that NGO operations in China are subject to stringent regulation and are generally thought to have limited influence (Ho, 2001), certain groups have been able to overcome the challenging circumstances and utilize different strategies to actively promote changes in China's environmental and climatic policies. Some organizations have gained knowledge and expertise by working with local communities and conducting research within the field, which has granted them opportunities for policy advocacy. In such context where the public is generally excluded from the policymaking process, expertise allows for a technocratic form of representation of the broader public and some level of political participation (Froissart, 2019). These organizations thus found a pathway to policymaking by cooperating with climate experts, key policymakers, government officials, academic institutions, etc.

This research then seeks to unpack the puzzle of how NGOs utilize the expert strategy to obtain access to policymaking in China by leveraging their knowledge and expertise. This article provides further empirical accounts of NGO's employment of expert strategy in non-democratic context of China by looking at one of the expert organizations—Greenovation Hub (G:hub)—as a case study to examine how G:hub forms policy networks to advocate for climate policies in China, specifically the resources G:hub brings to the policy network to access the authoritarian policymaking process. Based on fieldwork evidence, this analysis explains the role this NGO plays in the exchange of information with policymakers inside the network. The findings indicate that NGOs effectively employ policy-expertise tactics to align their preferred policy recommendations with the interests of the state in climate policymaking through these networks. This is consistent with existing study on democracies (Avant et al., 2010; Stroup and Wong, 2016). The significance of this finding is that the expert strategy works for policy advocacy regardless of regime type, but that accessing policy networks is even more vital in a closed policymaking process (Grömping and Teets, 2023).

The article is organized as follows: first, I attempt to conceptualize the relationship between NGOs and the climate change expert community in China; then, I intend to map key actors in China's climate policy expert community and NGO's position in the climate policymaking process; Lastly, an empirical analysis will be presented on how G:hub constructed policy networks with key experts and partners in China, both domestically and internationally, to advocate for policies.

2 NGOs and climate policy networks in China

Think tank type organizations have been active in advocating for environmental and climate policies internationally and domestically, albeit within distinct political contexts. Knowledge-based organizations become instrumental in climate and environment policymaking by providing expert opinion and contributing legitimacy to the decision-making process (Gough and Shackley,

2001, p.332). Academic focus is given to think tanks and NGOs using their knowledge-based expertise to advocate for policies at the international level, thereby influencing policy outcomes during negotiations (Gordenker, 1995; Betsill and Corell, 2001; Gough and Shackley, 2001; Avant et al., 2010; Brown et al., 2012; Stroup and Wong, 2016; Ebrahim et al., 2022; Grömping and Teets, 2023). Simultaneously, nonstate knowledge actors also establish alliances or networks to mobilize policies on a transnational or domestic scale. The connection between think tank organizations and stakeholders in the policymaking process is described by different analytical frameworks, including the epistemic community (Haas, 1992), policy networks (Marsh and Rhodes, 1992), and the advocacy coalition framework (Sabatier, 1988). Partnerships between different stakeholders can vary in strength, ranging from strong to weak. Some partnerships are based on shared policy goals, while members of epistemic communities also have common principled and causal beliefs, in addition to a shared policy objective. Utilizing knowledge as a leverage for policy advocacy has proven to be an effective strategy for achieving policy outcomes in both democratic and non-democratic contexts (Jost and Jacob, 2004; Turnpenny et al., 2005; Szarka, 2013; Plehwe, 2014; Haddad, 2021; Grömping and Teets, 2023).

While policy advocacy organizations are permitted to operate, they are left with restricted political opportunity, namely fewer policymakers access and a reduced channel for participation (Grömping and Teets, 2023, p.22). For NGOs, while they aim to maintain stable access to climate policymaking in China, it is important to consider their interactions with experts, government officials, and other actors in developing and implementing policies. China's governance over climate and environmental affairs can be described as a "state-led, coercive, authoritarian style of environmental governance" (Li and Shapiro, 2020, p.25). Top-level decisionmakers often seek advice from experts embedded within the bureaucracy; although some NGOs may be able to produce research and policy suggestions, the formal policymaking process in China is thought to have fewer grassroots inputs into it (Farid, Noguchi, 2022). This affords the opportunity to discuss the position of NGOs and their claim to expertise, i.e., to what extent NGO expertise is recognized.

2.1 Conceptualizing the relationship between the Chinese expert community and NGOs through goal alignment

The underlying question regarding NGO's policy influence in China is the conditions under which can NGO's strategy leads to policy adoption? In this article, I focus on NGOs using expert strategy through leveraging their research and knowledge to mobilize for policy changes. I tentatively use the concept of expert community to describe the government organizations, research units (universities, think tanks, etc.), and expert individuals who work on climate change issues within the Chinese bureaucracy. As (Wübbeke, 2013, p.712), who researched China's climate change expert community, defined it, *an expert is someone who has acquired specialist knowledge in a certain sphere. The expertise may come from basic and applied research and refers to 'hard' natural science and 'soft' social science as well as policy advisors*. I use the concept of expert community more broadly to encompass both individual experts and research units or organizations in China that possess certain

expertise. Government agencies, research institutes, individual experts, and universities that have asserted their expertise in climate change and are part of the bureaucratic system can be regarded as members who share core beliefs, policy goals, and a code of conduct under the supervision of the Chinese government. On the other hand, the expertise of NGOs discussed here constitutes more "on-the-ground" (policy know-how) knowledge for which the government or business lacks resources (Farid and Noguchi, 2022, p.7).

First, do NGOs need to adjust to have their policy goals aligned with the expert community and the state's policy preferences? With policy preferences leaning toward climate change and green transition in China, NGOs and members of the expert community may find highly aligned common policy goals. As Li and Shapiro stated, under President Xi's administration, the concept of "ecological civilization" has been promoted as a political philosophy in China (Li and Shapiro, 2020, p.5). As an ideological work for the Party, efforts to enhance ecological civilization in China led to more than 20 government research centers and other think tanks working on debating and refining these concepts (Li and Shapiro, 2020, p.7). In addition, under this philosophy, China has committed more ambitiously to issues such as renewable energy, carbon reduction, and biodiversity. The change in macroenvironment also left space for NGOs to contribute to the debates. In 2021, the 14th Five-Year Plan for the Development of Social Organizations (Ministry of Civil Affairs 2021) encompassed suggestions like "support nationwide social organizations that provide professional service to national strategy such as sustainable development," "enhance social organizations' ability to participate in global governance," which direct civil society organizations to align their work with state priorities. The expert community under the leading of the Chinese government would prioritize their research to support state interests, and NGOs are likely to achieve policy objectives when their inputs are aligned with such priorities of the expert community and the government. For instance, China's "dual carbon targets" provide fertile ground for NGOs and members of the expert community to forge common policy goals and cooperative relationships.

Second, are NGOs considered a part of the expert community? With its fast economic development, China is faced with great environmental costs of pollution and degradation (Rozelle et al., 1997; Wang, 2004; Smil, 2015). The rise of environmentalism (Ho, 2001; Gilley, 2012; Li and Shapiro, 2020) in China demands the production of new knowledge and understandings toward the problem and solutions, and experts working on issues related to environment and climate change, especially those embedded in the bureaucracy who supply knowledge to the national government for its decision-making. At the same time, facing the exacerbating environmental consequences of rapid economic development, in 1993, China's first environmental NGO (ENGO) was founded in Beijing, followed by more than 6,000 ENGOs by 2016, including government-backed organizations (Ministry of Ecology and Environment, 2018). Both experts in the policy community under the guidance of Beijing, and ENGOs, recognize the significance of tackling environmental and climate-related concerns. In this sense, NGOs and the experts in the Chinese bureaucracy share a common understanding that rapid economic development can have adverse effects on the environment and climate and that mitigating and adapting to climate change should be a priority policy (China Association for NGO Cooperation 2022).

However, this does not necessarily imply that NGOs are considered as members of the expert community. The bulk of the members of the expert community are government agencies, research institutes, and universities, which are parts of the Chinese bureaucracy. For government led or backed agencies, one of the core beliefs they share is that science can serve as a servant of politics, and science is understood as a tool for supporting the political work of the government (Wübbeke, 2013, p.719). However, NGOs are (supposed to be) independent of that system, which means that grassroots NGOs are not under the direct leadership of the Chinese government nor seek to advance the objectives of the government. As NGO staff said, "we are still working on cooperating with the government (in advocacy), while trying to maintain our own independence" (Interview with G:hub and CCAN). NGOs may seek to create an "insider" role as policy experts while try to maintain some level of independence.

Thirdly, what type of recognition NGOs need to increase policy influence? In other words, can NGOs enjoy the same social recognition as members in the expert community for their knowledge contribution? Members of the expert community often acquire their expertise through their scientific knowledge, while in the case of Chinese NGOs, they focus more on reframing issues and increasing understanding of solutions instead of producing scientific knowledge (Hasmath and Hsu, 2014; Teets, 2018). NGOs in China do not enjoy the same level of recognition (by society) as expert members in the community, such as research institutes and universities, despite the fact that certain NGOs have already attained a certain level of knowledge in the conceptualization of the climate issue. This in fact limited NGOs' inclusion in the Chinese climate expert community, and their contribution to the policy community is not being institutionalized. Moreover, empirically, Chinese NGOs do not consider being part of the epistemic community as a primary goal (Hasmath and Hsu, 2014). Chinese NGOs are thought to lack the professionalism to function as credible sources of expertise as a sector, but they seem to function as sources of expertise for policymakers (Farid and Noguchi, 2022, p.7). Instead, NGOs seek to create an expert and more tenured position for themselves in the public eye to influence policymaking.

In addition, this case study seeks to answer the outstanding question of how do local NGOs utilize the expert strategy to achieve advocacy objectives in the Chinese context. The expert community is porous and constantly under construction, thus allowing NGOs to operate in proximity to scientists and professionals who inform key policymakers, to form policy networks based on common policy goals under the state's political philosophy, however, NGOs are not firmly embedded in the expert community at this stage. As Teets pointed out, such networks (NGOs formed) in China work in similar fashion (as described in the expert community framework), but in not exact ways (Teets, 2018, p.126).

Furthermore, the policy network framework is particularly useful in the Chinese context compared to the epistemic community framework, which analyzes alliances between different stakeholders. Although the framework of the epistemic community also captures the dynamics between policymakers and the expert community in achieving a common policy goal, for instance, Peter Haas (1989), in his research on Mediterranean pollution control, found that UNEP officials, secretariat members from specialized agencies, and like-minded governmental officials in the region comprised an "epistemic

community" (Haas, 1989, p.384). They shared a common ecological outlook, similar beliefs, and acted as an informally lobbying group. In the Chinese context, different members of the policy network can work toward achieving a common policy goal without sharing the same principled beliefs. Thus, the selection of policy networks fell below the level of an epistemic community and is applied to capture the dynamics and interaction for such alliances between the expert community and NGOs.

2.2 Policy networks in China: definition, characteristics, and NGOs in them

The framework of policy networks is an approach to help understand the participation of different actors within a policy area (Turnpenny et al., 2005). This approach analyzes the relational patterns or connections of different actors' participation in a particular policy issue or arena, traces their interactions and resource sharing, and assesses their respective influence (Marsh and Rhodes, 1992; Klijn, 1996).

In fact, this framework has been mainly applied in democratic countries such as the UK (Marsh and Rhodes, 1992; Turnpenny et al., 2005) and Germany (Jost and Jacob, 2004). Its analytical emphasis on the interaction of different actors and the role of ideas gives it the possibility to be applied in the Chinese context. Teets (2018) used a case study to demonstrate how strategies employed by Chinese NGOs in constructing policy networks determined the results of changing policy. According to her study, some NGOs in China used different strategies to locate access points to the policymaking process by forming policy networks. By the same token, G:hub also used this approach, constructed subsidiary networks with key experts and policymakers, and subsequently had their policy suggestions adopted. In this research, policy networks are defined as "*webs of relatively stable and ongoing relationships which mobilize, and pool dispersed resources so that collective (or parallel) action can be orchestrated toward the solution of a common policy*" (Kenis and Schneider, 1991, p.36).

Ideas about the issue of climate change motivate policy change in the case of China. According to Teets, the common causal mechanism is that "through networks, individuals transmit knowledge and other resources to persuade policymakers to adopt their conceptualization of a particular problem and solution set. The policy networks are not trying to shift policymakers' interests but rather their ideas underlying the conceptualization of the problem" (Hasmath and Hsu, 2014, p.949; Teets, 2018, p.128).

Policy networks in China thus possess the following characteristics: First of all, developing a shared policy agenda within a network of specific government agents is the key to gain policy access and increase policy influence (Teets, 2018, p.127). Unlike the epistemic community, where members of the network share common causal beliefs and worldview, members of the policy network in China only share common understanding and agendas regarding a policy issue or arena, but not worldview.

Secondly, Teets (2018, p.128) also pointed out that policy networks possess "authority" or "expertise" due to embedded experts in these networks and provide technical information to policymakers to which they otherwise might not have access. Chinese NGOs seek to form alliances or cooperative relationships with the technical experts who have access to key climate policymakers in China. Then, through

transmitting information within the networks, NGOs thus obtain persuasive power. In China, state actors may defer to this expertise, which gives NGOs a legitimate role in the policymaking process, and NGOs increasingly play this "expert" consultant role for policymakers, especially where the state does not have expert capacity (Ho, 2001; Teets, 2014).

Thirdly, policy networks have access to credible information about citizen needs (Teets, 2018, p.128). Policymakers in an authoritarian context often lack the information needed to design effective policies; this is where policy networks can come into play. Here, Teets highlighted the importance of trust between members to provide credible information. The Chinese philosophy of "Guanxi" (relationship) helps explain the influence of networks. In a sense, "network members are not employing rational persuasion but rather relational persuasion, where the relationships in the network generate trusted information and create social obligation to help one another achieve goals" (Teets, 2018, p.129). This mutual trust proves to be essential for NGOs that seek cooperation with the government, as researchers found that the more epistemic awareness (of NGOs work) is achieved by the state, the stronger the desire it will have to interact with NGOs (Hasmath and Hsu, 2014).

Lastly, policy networks provide access to policymakers embedded in the networks (Teets, 2018, p.129). Policy access is usually closed to external influences in an authoritarian context (Boix and Svolik, 2013; Duckett and Wang, 2017; Wu, 2020; Burkhanov, 2021; Grömping and Teets, 2023). In fact, governments often employ repression and co-optation strategies toward NGOs to protect their rule (Lewis, 2013; Spires and Ogawa, 2022). NGOs often operate in a politically constraining environment that lacks access and means to policy advocacy; however, researchers also found evidence that civil society shapes and influences the authoritarian state (Durac and Cavatorta, 2009; Cavatorta, 2012; Lewis, 2013; Gleiss and Sæther, 2017; Haddad, 2021; Spires and Ogawa, 2022; Grömping and Teets, 2023). Climate policymaking in China takes a top-down approach with the state at the center (Wang et al., 2018; Zhang, 2022), which makes the construction of policy networks especially important as NGOs lack other channels to access the policymaking process. NGOs constructing these networks exchange technical expertise and reliable information for policy access (Teets, 2018). Teets' study found that government agencies, NGOs, and the NGO's supervising unit are the "iron triangle" for policy networks. NGOs can exploit their supervising unit's "guanxi" to connect with key experts and policymakers in China. In the case of G:hub, I found that NGOs can also gain access to these people through other channels, for instance, by joining an NGO network or specific policy platform, such as the China Civil Climate Action Network (CCAN) and the Belt and Road Green Development Partnership.

3 Data collection

Semi-structured interviews are the primary source of the data used in this research. The interviews mainly took place during my fieldwork in China from November 2020 to September 2021. I visited the G:hub office in Beijing, during which internal publications on G:hub's research and annual reports were collected. I also conducted 4 rounds and, in total, 7 semi-structured interviews with G:hub's project officers and project manager during my site visit to G:hub and

during my participation as an NGO observer in the UN COP24 in Poland and COP27 in Egypt. In addition to that, I also took the chance to have more informal exchanges with G:hub staff, NGO practitioners from other Chinese organizations, and government officials during my participation in the UN COPs. I also interviewed CCAN's secretarial staff as well as a foreign foundation G:hub collaborated with both in Beijing and at the UN COPs.

Participant observation is another method used for data collection in this research. As mentioned, I followed G:hub's participation in different conferences at both international and domestic levels. Internationally, I observed G:hub's participation at COP24 in Katowice, Poland, and COP27 in Egypt. By engaging in participatory observation, I had the opportunity to closely monitor the activities of G:hub at the COPs and their interactions with influential politicians and experts from China during the COPs. Due to their long-standing participation in COPs, G:hub has successfully maintained favorable contact with authorities from the Ministry of Ecology and Environment. G:hub also participated in co-hosting multiple side events at the China Pavilion, which is supervised by the Ministry, allowing them to create connections. My two trips to the COPs enabled me to map the organizations representing Chinese NGOs at the international level. Participating in the UN COPs remains an exclusive club for Chinese NGOs; the few with legal status (trustworthy from the government's view) and expertise recognized by the officials may have access. Hence, being at the COPs can help G:hub stay close to key policymakers and experts from China, which facilitates engagement with key stakeholders. The appearance at the international conferences will also assist in increasing the legitimacy of G:hub's operation at home, as expressed by G:hub staff (Interview at COP24, 2018). Domestically, I observed G:hub organized conferences such as the pre-departure meeting for NGOs before COP27, financing for climate adaptation: international and domestic policies and experiences, etc. The observation of CCAN's annual meetings also helped in increasing an understanding of G:hub's participation within the NGO network. The main content of these conversations was recorded in the fieldwork notes as supporting materials for this research.

Furthermore, while participant observation did not provide me with direct confirmation of the adoption of G:hub's policy ideas by government officials, it did provide me access to the inner circle and interactions of NGOs engaged in policy advocacy in China. Attending COPs serves as a validation of an NGO's standing as a policy advocate from the government's perspective. Nevertheless, engaging in direct cooperation on particular matters can confirm that G:hub was part of a policy network with relevant government entities.

4 Climate expert community in China

The climate policymaking structures and the climate expert community's relation to them are described in the below Figure 1. As demonstrated, the top level decisionmakers are the members of the National Leading Group, headed by the Premier of the State Council and with officials from 30 ministries and commissions as members (Government of China 2019).[1] The group is responsible for addressing

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[1] The latest announcement by the government of China was in 2019, it is yet to be announced the changes to the officials in the leading group.

and coordinating climate change, energy conservation, and emission reduction affairs in China. China's climate policymaking process took a top-bottom approach. Additionally, climate change is no longer understood as an independent policy agenda by the top decisionmakers but rather as an issue requiring systemic coordination (COP26 observation note). This in fact determined the multi-disciplinary and trans-organizational nature of the composition of the expert community.

Political leaders frequently consult members of the expert community and draw on their substantive conclusions (Wübbeke, 2013). Under the national leading group is the National Advisory Committee on Climate Change, which is comprised of leading experts on climate affairs in China. The committee was first informally formed in 2005 and officially set up in 2007 (Wübbeke, 2013, p.726). The Committee is the most direct and powerful instrument for climate experts to communicate with the government (Wübbeke, 2013; Aamodt and Stensdal, 2017), however, the work of the committee is otherwise mysterious (Wübbeke, 2013). Members of the committee come from key research institutes and universities in China. Though the names of these experts were never officially announced, we can trace them by looking at the Chinese experts who participated in the work of the IPCC. According to the China Meteorological Administration, 13 experts from China participated in the writing of the IPCC's Mitigation of Climate Change (AR6-WG3) report (China Meteorological Administration 2022). And they are from the Institute for Urban and Environmental Studies (IUE), the Chinese Academy of Social Sciences (CASS), the Institute of Science and Development, the Chinese Academy of Sciences, the Energy Research Institute, the National Development and Reform Commission, Tsinghua University, the National Center for Climate Change Strategy and International Cooperation (NCSC), the Center for Energy and Environmental Policy Research, Beijing Institute of Technology, the School of Environmental Science and Engineering, Shanghai JiaoTong University, and the School of Economics, Fudan University (IPCC, 2022). Based on the empirical evidence, the expert community is mostly composed of research institutes, universities, and government-led agencies.

In China, climate change research has been government-led (Wübbeke, 2013, p.716). As presented above, climate experts are from organizations within the Chinese bureaucracy. And it is because of the composition of the community that one of the core beliefs they share is that science can serve as a servant of politics; science is understood as a tool for supporting the political work of the government (Wübbeke, 2013, p.719). The top-down approach implies that the pool of experts is working under the direction and guidance of the top leaders of the government; therefore, the criteria for weighing and validating knowledge are internally defined within the bureaucracy itself.

Another characteristic of the Chinese climate expert community is that it plays the typical role of an expert community or epistemic community widely defined, which includes "articulating the cause-and-effect relationships of complex problems, helping states identify their interests, framing the issue for collective debate, processing specific policies, and identifying salient points for negotiation" (Haas, 1992). Experts may play three types of roles when engaging with international climate talks: direct participation in the multilateral climate talks, contact and coordinate with other countries to facilitate multilateral cooperation, and provide consultancy and technical assistance (Chen, 2022, p.105). In fact, experts within the community can serve as negotiators for the
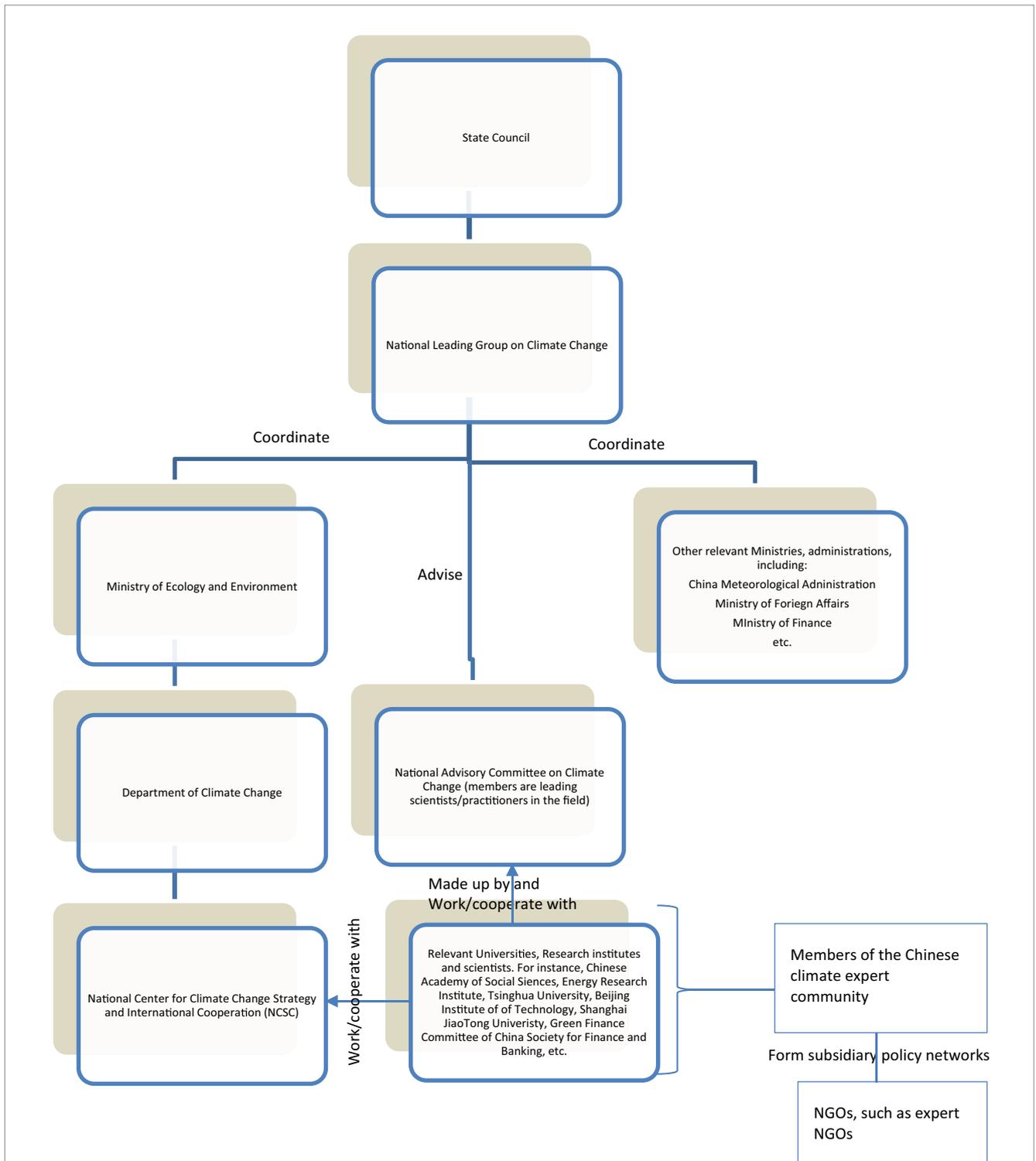
FIGURE 1
Elements of the Chinese climate expert community.

Chinese delegation to the UNFCCC COPs (observation note at COPs). For instance, experts from Tsinghua University and NCSC have been appointed to join the delegation (Observation note at COP24 and COP27, Chen, 2022, p.104, Wübbeke, 2013, p.727). Moreover, experts may also function as policymakers through political positions. According to Wübbeke, "climate experts could use the double function of experts and members of the Consultative Conference to promote their academic findings on the political agenda" (Wübbeke, 2013, p.727). However, their position within the delegation is not stabilized, as some members may accompany the delegation for years while others only once or twice. It is yet not clear of the mechanism of promotion and de-promotion of the members within the expert community, namely, how and when members are being appointed by the government to undertake or step down from certain roles or tasks.

5 Case study: Greenovation hub and climate policy networks

This section will explain how G:hub obtained their access to policymaking process through constructing policy networks, and the implications for advocacy outcomes. G:hub have achieved its policy objectives regarding China's overseas development policies regarding green finance. I found that G:hub used other ways to expand their networks with the key members of the Chinese climate expert community, in addition to exploit their relationships with their supervising unit in the government as the starting point for access as suggested by Teets (2018), such as by a joining cooperative platform and sharing resources between members of the NGO community.

5.1 Introduction to G:hub

Greenovation Hub is an independent environmental non-governmental organization based in Beijing, registered with the Beijing Municipal Civil Affairs Bureau. G:hub advances policy development and dialogs in cutting-edge areas of sustainable development and seeks innovative solutions to quality growth, climate resilience, and carbon neutrality in China and beyond, contributing to a net-zero and nature-positive future (G:hub website). Currently, G:hub is focusing its work on two main topics: climate change and biodiversity (Interview with G:hub staff 2022). It is very well known within the NGO community in China for its research on green climate finance and its policy interpretation series following UN-centered multilateral negotiations (Interview with CCAN staff 2022).

G:hub developed its networks within the Chinese climate policy community through conducting joint research, holding research conferences, and providing professional training. For instance, they have conducted joint research on green climate finance with Tsinghua University PBC School of Finance, the Green Finance Committee, the China Society for Finance and Banking, and international organizations such as OXFAM Hong Kong and the World Resources Institute. By working on joint initiatives, G:hub established policy networks with shared policy agendas and goals among Chinese climate experts. These networks aided the organization's efforts to advocate for policies in the climate and environment domains in China.

5.2 G:hub created policy networks: success in policy adoption

G:hub has produced many policy recommendations and related research, but one of its most visible accomplishments in the adoption of its policy suggestions was its contribution to the "Environmental Risk Management Initiative for China's Overseas Investment" in 2017, jointly produced by the Green Finance Committee (GFC) of the China Society for Finance and Banking and other key expert institutions in China (Ministry of Ecology and Environment since 2018). Local NGOs' policy influence is rarely investigated in the discussion on China's overseas development policies especially regarding green transition. G:hub is among one of the first NGOs have its policy suggestion adopted by key policymakers in China. If the shared understanding of the problem the NGO developed within the network is also highly aligned with the state's

priorities, it will increase the likelihood of a favorable advocacy outcome. In this case, G:hub was able to construct policy networks based on common policy goals and agendas with experts in the policy community, which further created an expert role for itself within the policy community. Additionally, by participating in policy platforms and joining collaborative coalitions with other NGOs can also assist in broadening an organization's policy networks.

In this advocacy case, GFC acted as the key node for G:hub to gain access to the policymaking process regarding green finance in China. The Green Finance Committee (GFC) of the China Society for Finance and Banking is a professional research committee working on green finance research and practices in China. More importantly, the experts in GFC are from mainstream financial institutions in China, which include the People's Bank of China, the China Banking and Insurance Regulatory Commission, the China Securities Regulatory Commission, the Industrial and Commercial Bank of China, the Ministry of Ecology and Environment, etc. With members from financial policymaking, regulatory, and practicing units, GFC strives to act as a bridge between policymaking bodies, financial institutions, and enterprises (GFC website 2015). GFC is therefore one of the most influential finance expert committees in China. G:hub has been a member of GFC's governing units since 2017 (GFC 2022).

Before G:hub joined GFC's governing unit, they had already conducted exploratory research on China's green investment overseas and its associated risks, which helped G:hub find common policy goals and interests with GFC. As G:hub's staff expressed,

> "We were able to present our research outputs to GFC through interviewing with its members, and we then established a connection with them. Our exploratory research was among the first to focus on China's green investment overseas, which (to some extent) filled the blank space in policymakers' knowledge in this field" (Interview with G:hub staff 2022).

G:hub has been building its profile as an expert on China's green overseas investment and risk mitigation. Through interviews with GFC members, G:hub was able to present its research outputs to the experts at GFC. In 2017, green overseas investment was high on the state's priorities and policy agendas, G:hub was able to demonstrate that its expertise and policy interests are aligned with key experts (Interview 2024), and gained an advantageous position to provide policy suggestions to shape policymakers' understanding of this issue and set of solutions. Built from the initial connection to GFC experts, G:hub found the common policy agendas with GFC, which then obtained access to the expert community on green finance in China.

Constructed on the ground of common policy interests and goals, which are to inform China's green overseas investment, G:hub became a member of GFC governing units in 2017, joining GFC's task force to participate in the content drafting of the new initiative on environmental risk management and China's overseas investment. G:hub specifically contributed to the part on the fulfillment of the Paris Agreement and the UN's sustainable goals in 2030 in relation to China's green investment overseas (Interview with G:hub staff 2022). Being a part of the GFC governing units demonstrated that G:hub is well-liked by the expert community and was able to work with GFC to create a policy network. As a part of the task force, G:hub assumed an "insider" role as a policy expert. As a staff member at G:hub said,

> "The internal channel is the most efficient means for policy suggestions to be adopted. When proposals come from external sources, they rarely receive the attention of policymakers" (Interview 2024).

In the task force, G:hub not only drafted the part regarding the Paris Agreement but also made suggestions regarding content in the main body. The initiative's official draft eventually included G:hub's suggestion (GFC website 2017; Interview 2024). Being in the same policy network as GFC offered more opportunities for further cooperation with other experts within the policy community working on green finance in China. GFC then also participated in G:hub's other conferences and policy initiatives, such as the green development partnership on China's Belt and Road Initiative.

However, G:hub's research also encountered rejection from the government, which demonstrates the limits of the expert strategy of cooperating with the government. G:hub together with a few NGOs, conducted an analysis of China's overseas coal-powered plants in 2020. However, the research based policy suggestions they proposed were rejected when G:hub pitched them to the experts and policymakers in the network. Although China announced plans to stop building new overseas coal power plants in 2021 (China Dialogue 2021), controversy over China's overseas power plants was mounting before the announcement. When it comes to the rejection, G:hub staff said, "Even though our research had no controversial information in it, the topic was deemed sensitive to China's image overseas, and the authority wanted to minimize the impact of such a topic" (Interview with G:hub 2020). Coincidentally, a similar rejection was experienced by another NGO based in Beijing (site visit in Beijing 2020).

China's international image has been considered a driver for its policymaking (Kopra, 2013; Kastner et al., 2018; Wang, 2022). In the process of quitting coal-fired oversea projects, any external attention drawn to the discussion that may potentially affect China's oversea image as a responsible stakeholder would be considered a political impact by the state. The government agencies regulating overseas projects keep a close eye on the political impact of these projects (Wang et al., 2024). At the time when China was facing controversy over coal-fired projects, NGOs' policy advocacy conflicted with the state's intention to manage the political impact of such projects, which led to the failure to align goals and priorities with the state, and their policy suggestions were likely to be rejected. Although the controversy over coal-fired projects is diffused over the abolishment of such projects, a temporary failure to identify the state's priorities at the time led to policy rejection for NGOs which outlined the limits of such strategy.

5.3 Additional approaches to expanding networks

Joining a policy platform with joint policy agendas is another way to construct policy networks for G:hub. One of the policy networks created by G:hub is the research platform on green development of China's Belt and Road Initiative. The Belt and Road Green Development Partnership (referred to as the partnership thereafter) was established in September 2016 with the collective goal of "providing policy recommendations for sustainable development under the Belt and Road Initiative by bringing together Chinese and international think tanks, environmental NGOs,

and foundations" (Global Green Leadership 2017). The partnership aims to facilitate experts to provide professional guidance on BRI topics and submit research results and policy recommendations to relevant departments and agencies, and eventually to build an effective exchange partnership that promotes cross-sectoral dialogue and cooperation and builds consensus among multiple stakeholders (Global Green Leadership 2017).

The members of the partnership are mainly civil society actors operating in China, which include government-backed NGOs like the All-China Environment Federation and China Green Carbon Foundation; international NGOs like the Energy Foundation, Greenpeace, Natural Resources Defense Council, OXFAM, WWF, World Resources Institute, etc.; and research institutes like the Peking University Institute of Ocean Research. G:hub is acting as the coordinating organization for the partnership. By incorporating like-minded organizations, top-level research institutes, and developing a shared policy goal, G:hub was able to access key policymakers through the connections of the members to the partnership. In fact, one of the roles that the partnership plays is to provide an enabling environment for member institutes to facilitate extensive exchanges on the green development of BRI (Global Green Leadership 2017).

Under the shared research agenda and policy goals, the partnership has jointly hosted a series of seminars and conferences to disseminate its research outputs and establish more close connections with the policy community in China. As mentioned by the deputy director of G:hub,

> "G:hub has collaborated with GFC to host a series of seminars and trainings on green finance and investment under the BRI in June, September, and November of 2018, and September of 2019. We invited different policy experts and policymakers to our seminars to share their research and experiences on the topic" (Interview with G:hub staff).

Examples of these expert organizations include the Tsinghua University PBC School of Finance, the Industrial and Commercial Bank of China research department, the Heinrich-Böll-Stiftung Beijing, and the China Urban Financial Society, etc. As G:hub staff said,

> "These experts (who are embedded in the partnership) not only have close connections to the key scientists and researchers in the field but also to key policymakers" (Interview with G:hub staff).

This is also reflected in the partnership's research output. For instance, the director of strategic planning at the National Center for Climate Change Strategy and International Cooperation (NCSC) has contributed to the partnership's research on relationships between the BRI and South–South climate cooperation. The NCSC is a research institute under the direct supervision of the Ministry of Ecology and Environment in China. Experts from this institute have been members of the Chinese delegation to participate in multilateral climate negotiations.

Equipped with shared policy goals and access to top level policy experts and policymakers in China, the partnership has also been active at the international level. The partnership hosted multiple side events at COP23 in Germany and COP24 in Poland, under the topics of green development in the BRI and climate governance. These events hosted by the partnership brought together top experts working on climate change, energy, and finance sectors in China as well as delegates not only from China but also from other developing countries, for example, the director

general for environment and climate change at Pakistan's Ministry of Climate Change (Observation at COP24 2018). G:hub deputy director said,

> "Hosting events at the UN COPs helps G:hub not only expand networks with both domestic and international experts, but also build legitimacy and recognition as an NGO back home" (Interview at COP24, 2018).

Apart from the above mentioned approaches to form policy networks with experts, G:hub also took other approaches to expand its networks. The first approach was joining an NGO cooperative platform. Environmental NGOs in China recognized the value of having a platform to share resources, knowledge, and experiences to increase their collective voices and influence (interview with CCAN staff). Established in 2007, the China Civil Climate Action Network (CCAN) is a network of Chinese NGOs that promotes and facilitates information sharing and joint action with the goal of forming a wider coalition of stakeholders to address climate change (CCAN introduction material). CCAN also cooperates with Climate Action Network International (CAN-I) as an independent Chinese network. Through the CCAN platform, G:hub has joined CAN-I's information hub to share climate policy information, especially regarding the progress made with multilateral negotiations, within this transnational network of NGOs worldwide. The CCAN director said,

> "We have recommended G:hub to join the information hub; they have been following up with the negotiations for years and are very good at it" (Interview with CANGO staff 2022).

Moreover, as the host organization of the CCAN secretary, the China Association for NGO Cooperation (CANGO) has developed a mutually trusted relationship with officials in the Ministry of Ecology and Environment. Formerly a government-backed organization under the management of the Ministry of Commerce, CANGO is well embedded within the bureaucracy, which opened the door for opportunities to create connections with key stakeholders in China, for instance, officials at ministries, top university researchers, and international NGOs. As a member of CCAN, G:hub also reaffirms its presence and recognition among the key technocratic officials through CCAN's activity. By participating in CCAN's events, for instance, the annual meetings where key climate experts and policymakers were invited to observe and speak (Observations of CCAN annual meetings in 2019, 2020), G:hub also obtained the opportunity to expand its policy networks with the Chinese climate expert community.

Secondly, G:hub has started collaborating with other civil society organizations in China to help build capacity within the community (Interview with G:hub staff 2022). By initiating collaborative relationships, G:Hub is then able to share resources with their partnership organizations to expand its own influence. One of the examples of such efforts was to co-host the pre-departure conference before COP27 with a partnership of the Vanke Foundation, CANGO, the China International Exchange Association (government-backed), etc. The theme of this conference is "Toward Sharm-el-Sheikh COP27: Progress and Prospect of Global Climate Governance"; its purpose was to prepare the observing organizations of COP27 with the progress made with the negotiations and how NGOs from China can better participate in the COPs (Observation of the conference 2022). Through the Guanxi (relationship) of the co-hosting government-backed organizations, this conference invited key policymakers and members of the Chinese delegation to COP27 to share

their knowledge and experiences, putting emphasis on the NGO's role in "conveying the Chinese story of combating climate change." Sun Zhen, DG level counselor at the Ministry of Ecology and Environment, said at the conference that:

> "Climate change … is also an issue of social mobilization and social participation. We have always maintained close contact with social organizations in our work concerning climate change, supporting social organizations to understand and participate in global governance and domestic practices. In this process, we uphold the spirit of transparency and inclusiveness and construct mutual trust, which reflects the whole-process people's demonocracy[2] and consultative democracy" (G:hub 2022).

The host of the conference opened up new opportunities for G:hub to expand its policy networks among the expert community in China. The official recognition of the importance of NGOs helps enhance mutual trust between NGOs and the government, which may open more cooperating opportunities for G:hub. More importantly, G:hub's work on interpreting the UN-centered multilateral climate negotiations received recognition from experts at the National Center for Climate Change Strategy and International Cooperation (NCSC), which encouraged G:hub to share their experiences in this regard with other NGOs by hosting this pre-departure conference (Interview with G:hub staff, 2022). This signified an official recognition of G:hub's expertise in its research outputs.

6 Conclusion and discussion

This case study analyzed the Beijing-based NGO—G:hub and its expert strategy in constructing policy networks with the Chinese climate expert community to advocate for policy. I focused on how NGOs utilize the expert strategy to advocate for the climatic aspect of China's overseas development policies and how NGOs interact with key policy experts to gain access to the policymaking process. The analysis may contribute to the understanding of China's climate policymaking process, the conditions for NGOs' expert strategy, and policy influence that NGOs have on the climatic effects of China's overseas development policies.

Based on the empirical evidence of G:hub's policy advocacy, constructing policy networks with experts in the community can provide NGOs with access to the policymaking process in China. In addition to the essential of developing common policy goals with experts embedded in the networks, as Teets (2018, p.137) suggested, in this case, I also found the opportunities and limitations linked to the alignment of NGOs' policy objectives with the state's vision for climate policy. When an NGO managed to align its research with experts' understanding of the issue and the state's interests, it was likely to have policy suggestions adopted; however, if they failed to form a shared understanding and solution to the problem with experts and the state, it may lead to policy rejection. As environmental and climate change issues became a policy priority in China,

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2   Whole-process people's democracy was first used by President Xi Jinping in 2019. It is a part of Xi' thoughts on socialism with Chinese characteristics for the new era. For detailed explanation: https://web.archive.org/web/20211016164056/https://news.cgtn.com/news/2021-10-16/What-does-whole-process-people-s-democracy-mean--14oXnZjnC1i/index.html.

"ecological civilization" and "dual carbon targets" may provide opportunities for NGOs to form common policy goals and agendas with experts; however, the selection of topics should reflect the state's interests and priorities to increase the chances of policy adoption.

Additionally, the empirical evidence showed that the policy networks constructed by G:hub have the following characteristics: Firstly, members of the networks share common policy interests and agendas regarding climate change, not necessarily at the level of the same world view. In a sense, policy networks can be viewed as a discourse coalition instead of an advocacy coalition where members share an understanding of a problem but not the same world view (Turnpenny et al., 2005, p.4). Secondly, the experts embedded in the policy networks possess authority and expertise due to the provision of technical information to policymakers. In the case of G:hub, its partnership organization, the Green Finance Committee (GFC), is a professional research community that not only provides policy advice but also has technocratic officials from China's financial regulatory bodies embedded in the committee. Thirdly, mutual trust and positive Guanxi play an important role in forming policy networks. Grassroots NGOs in China are not part of the bureaucracy; this in fact requires them to cultivate a high level of mutual trust with the experts to prove that they will provide credible information. And the Chinese Guanxi will help NGOs expand their networks. The case of G:hub validated this point. Through hosting conferences and conducting research, G:hub gradually obtained trust from the climate expert community to join the policy networks. Lastly, NGOs gained access to the policymaking process via policy networks. G:hub's policy suggestions were adopted through the Guanxi of GFC, which opened the door for G:hub to access the policymaking process in China regarding green finance. By discussing the characteristics of policy networks, this research also answered questions on how NGOs construct policy networks and how policy networks may assist NGOs in mobilizing policy change.

Lastly, empirically, it is rather difficult to assume causal relationships between the NGO's policy suggestions and the actual policy outcomes produced. As G:hub staff said, "Policy change is a relatively long process; the result cannot be observed over the course of two or three years. Moreover, in China, policy outcomes are often promoted by multiple stakeholders; thus, we (NGO) do not know definitively whether a certain policy outcome is achieved because of our activity or because it is the fruit of other organizations's efforts" (Interview with G:hub staff 2022).

It is yet to be seen whether China will allow more space for NGOs to construct a closer relationship with the expert or even policymaker community, such as the one described in the epistemic community framework. More importantly, more reflections are needed on the conceptualization of "success in advocacy," especially in the long run. Failure to meet a short-term goal might open doors for long term gains. In the case of NGOs, further research can be directed to the implication of advocacy outcomes on the level of democratic elements in the current Chinese political system and how much NGOs can contribute to it.

Data availability statement

Ethics statement

This research is conducted in accordance with the guidelines set by the Research Ethics Committee of the International Institute of Social Studies. The patients/participants provided written informed consent to participate in this study.

Author contributions

HZ: Writing – review & editing, Writing – original draft.

Funding

Conflict of interest

Publisher's note

Supplementary material

The Supplementary material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fpos.2024.1331663/full#supplementary-material

References

Aamodt, S., and Stensdal, I. (2017). Seizing policy windows: Policy Influence of climate advocacy coalitions in Brazil, China, and India, 2000–2015. *Global environmental change* 46, 114–125.

Avant, D. D., Finnemore, M., and Sell, S. K. (2010). *Who governs the globe?* Cambridge University Press.

Betsill, M. M., and Corell, E. (2001). Ngo influence in international environmental negotiations: a framework for analysis. *Glob. Environ. Polit.* 1, 65–85. doi: 10.1162/152638001317146372

Betsill Michele, M., and Correll Elisabeth, N. (2008). *Diplomacy: The influence of nongovernmental organizations in international environmental negotiations*. Cambridge: The MIT Press. doi: 10.7551/mitpress/7512.001.0001

Boix, C., and Svolik, M. W. (2013). The foundations of limited authoritarian government: institutions, commitment, and power-sharing in dictatorships. *J. Polit.* 75, 300–316. doi: 10.1017/S0022381613000029

Brown, L. D., Ebrahim, A., and Batliwala, S. (2012). Governing international advocacy Ngos. *World Dev.* 40, 1098–1108. doi: 10.1016/j.worlddev.2011.11.006

Burkhanov, A. (2021). Authoritarian Policy Styles: Post-Soviet Central Asia. *The Routledge handbook of policy styles, Routledge.* (pp. 63-74). doi: 10.4324/9780429286322-8

Cavatorta, F. (2012). *Civil society activism under authoritarian rule: a comparative perspective*, New York: Routledge.

Chen, L. Y., (2022). Experts and the science-policy interface in China's climate policy. Faculty of Social and Behavioural Sciences (FMG), Amsterdam.

Duckett, J., and Wang, G. (2017). Why do authoritarian regimes provide public goods? Policy communities, external shocks and ideas in China's rural social policy making. *Eur. Asia Stud.* 69, 92–109. doi: 10.1080/09668136.2016.1274379

Durac, V., and Cavatorta, F. (2009). Strengthening authoritarian rule through democracy promotion? Examining the paradox of the us and Eu security strategies: the case of bin Ali's Tunisia. *British J. Middle Eastern Stud.* 36, 3–19. doi: 10.1080/13530190902749523

Ebrahim, A., Brown, L. D., and Batliwala, S. (2022). Governance for global integration: designing structure and authority in international advocacy Ngos. *World Dev.* 160:106063. doi: 10.1016/j.worlddev.2022.106063

Froissart, C. (2019). From outsiders to insiders: the rise of China Engos as new experts in the law-making process and the building of a technocratic representation. *J. Chin. Gov.* 4, 207–232. doi: 10.1080/23812346.2019.1638686

Gilley, B. (2012). Authoritarian environmentalism and China's response to climate change. *Environ. Politics* 21, 287–307. doi: 10.1080/09644016.2012.651904

Gleiss, M. S., and Sæther, E. (2017). Approaches to civil society in authoritarian states: the case of China. *Sociol. Compass* 11:e12542. doi: 10.1111/soc4.12542

Gordenker, L. (1995). Ngo participation in the international policy process. *Third World Q.* 16, 543–556. doi: 10.1080/01436599550036059

Gough, C., and Shackley, S. (2001). The respectable politics of climate change: the epistemic communities and Ngos. *Int. Aff.* 77, 329–346. doi: 10.1111/1468-2346.00195

Grömping, M., and Teets, J. C. (2023). *Lobbying the autocrat: The dynamics of policy advocacy in nondemocracies*, Ann Arbor: University of Michigan Press. P. 368.

Haas, P. M. (1989). Do regimes matter? Epistemic communities and Mediterranean pollution control. *Int. Organ.* 43, 377–403. doi: 10.1017/S0020818300032975

Haas, P. M. (1992). Introduction: epistemic communities and international policy coordination. *Int. Organ.* 46, 1–35. doi: 10.1017/S0020818300001442

Haddad, M. A. (2021). *Effective advocacy: Lessons from East Asia's environmentalists*, Open Access: Mit Press.

Hasmath, R., and Hsu, J. Y. (2014). Isomorphic pressures, epistemic communities and state–Ngo collaboration in China. *China Q.* 220, 936–954. doi: 10.1017/S0305741014001155

Ho, P. (2001). Greening without conflict? Environmentalism, Ngos and civil society in China. *Dev. Chang.* 32, 893–921. doi: 10.1111/1467-7660.00231

Jost, G. F., and Jacob, K. (2004). The climate change policy network in Germany. *Eur. Environ.* 14, 1–15. doi: 10.1002/eet.337

Kastner, S. L., Pearson, M. M., and Rector, C. (2018). *China's strategic multilateralism: Investing in global governance*: Cambridge University Press.

Kenis, P., and Schneider, V. (1991). "Policy networks and policy analysis: scrutinizing a new analytical toolbox" in *Policy networks: Empirical evidence and theoretical considerations* (Campus Verlag), 25–59.

Klijn, E. H. (1996). Analyzing and managing policy processes in complex networks: a theoretical examination of the concept policy network and its problems. *Admin. Soci.* 28, 90–119. doi: 10.1177/009539979602800104

Kopra, S. (2013). A responsible developing country: China's National Image Building and international negotiations on climate. *Quart. J. Chinese Stud.* (Overseas Education College of Xiamen University), 1.

Lewis, D. (2013). Civil society and the authoritarian state: cooperation, contestation and discourse. *J. Civ. Soc.* 9, 325–340. doi: 10.1080/17448689.2013.818767

Li, Y., and Shapiro, J. (2020). *China goes green: Coercive environmentalism for a troubled planet*, Cambridge, UK: John Wiley & Sons.

Lo, K. (2015). How authoritarian is the environmental governance of China? *Environ. Sci. Pol.* 54, 152–159. doi: 10.1016/j.envsci.2015.06.001

Marsh, D., and Rhodes, R. A. W. (1992). *Policy networks in British government*: Clarendon Press.

Mertha, A. (2009). "Fragmented authoritarianism 2.0": political pluralization in the Chinese policy process. *China Q.* 200, 995–1012. doi: 10.1017/S0305741009990592

Plehwe, D. (2014). Think tank networks and the knowledge–interest nexus: the case of climate change. *Critical Policy Stud.* 8, 101–115. doi: 10.1080/19460171.2014.883859

Rozelle, S., Huang, J., and Zhang, L. (1997). Poverty, population and environmental degradation in China. *Food Policy* 22, 229–251. doi: 10.1016/S0306-9192(97)00011-0

Sabatier, P. A. (1988). An advocacy coalition framework of policy change and the role of policy-oriented learning therein. *Policy. Sci.* 21, 129–168. doi: 10.1007/BF00136406

Smil, V. (2015). *The bad earth: Environmental degradation in China*, London, UK: Routledge.

Spires, A. J., and Ogawa, A. (2022). *Authoritarianism and civil Society in Asia*. London, UK: Taylor & Francis.

Stroup, S. S., and Wong, W. H. (2016). The agency and authority of international Ngos. *Perspect. Polit.* 14, 138–144. doi: 10.1017/S153759271500328X

Szarka, J. (2013). From climate advocacy to public engagement: an exploration of the roles of environmental non-governmental organisations. *Climate* 1, 12–27. doi: 10.3390/cli1010012

Teets, J. (2013). Let many civil societies bloom: the rise of consultative authoritarianism in China. *China Q.* 213, 19–38. doi: 10.1017/S0305741012001269

Teets, J. (2014). *Civil society under authoritarianism: The China model*, New York, USA: Cambridge University Press.

Teets, J. (2018). The power of policy networks in authoritarian regimes: changing environmental policy in China. *Governance* 31, 125–141. doi: 10.1111/gove.12280

Turnpenny, J., Haxeltine, A., Lorenzoni, I., O'riordan, T., and Jones, M. (2005). *Mapping actors involved in climate change policy networks in the UK*. Norwich: Tyndall Centre for Climate Change, Working Paper, 66.

Wang, Y. (2004). Environmental degradation and environmental threats in China. *Environ. Monit. Assess.* 90, 161–169. doi: 10.1023/B:EMAS.0000003576.36834.c9

Wang, R. (2022). The construction of China's international image of a major country with a sense of responsibility in diplomatic discourse. *Insight-Information* 4, 65–72. doi: 10.18282/ii.v4i1.526

Wang, Y., Liu, C., and Sun, Y. (2024). No more coal abroad! Unpacking the drivers of China's green shift in overseas energy finance. *Energy Res. Soc. Sci.* 111:103456. doi: 10.1016/j.erss.2024.103456

Wang, P., Liu, L., and Wu, T. (2018). A review of China's climate governance: state, market and civil society. *Clim. Pol.* 18, 664–679. doi: 10.1080/14693062.2017.1331903

Wu, Y. (2020). Dynamics of policy change in authoritarian countries: a multiple-case study on China. *J. Publ. Policy* 40, 236–258. doi: 10.1017/S0143814X18000351

Wübbeke, J. (2013). China's climate change expert community—principles, mechanisms and influence. *J. Contemp. China* 22, 712–731. doi: 10.1080/10670564.2013.766388

Zeng, F., Dai, J., and Javed, J. (2019). Frame alignment and environmental advocacy: the influence of Ngo strategies on policy outcomes in China. *Environ. Politics* 28, 747–770. doi: 10.1080/09644016.2018.1525805

Zhang, H. (2022). China and climate multilateralism: a review of theoretical approaches. *Politics Govern* 10, 50–60. doi: 10.17645/pag.v10i2.4920