



Diffusion of global climate policy: National depoliticization, local repoliticization in Turkey

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ABSTRACT

Although climate policy diffusion is widely studied, we know comparatively little about how these global policies and the norms that surround them are used by various political actors seeking to advance their own agendas. In this article, we focus on how global climate norms are diffused differently at national and local scales and used to repoliticize or depoliticize climate change. We focus on the case of Turkey, which carries the stark contrast of showing willingness to achieve global climate goals in the international arena but less so in domestic politics and actions. The article employs a novel methodological approach, using topic modeling and network analyses on a range of climate change-related policy documents, and interviews with high-level officers, conducted at the three jurisdictional levels in Turkey. The findings reveal that although global climate policy is diffused to both national and local governments, it is used in different ways at these levels. The national government uses climate policy diffusion to depoliticize climate change by creating ad hoc climate coalitions and limiting local climate actions to seeking external climate-related funds. Meanwhile, the metropolitan municipalities replicate nationally adopted climate goals, whereas the district municipalities domesticate ambitious climate norms and repoliticize climate change via local climate entrepreneurs and civic action. The paper contributes to understanding how climate policy diffusion and norm domestication can have different political outcomes in achieving global climate goals and argues for increased policy attention to the strategic use of climate policy diffusion for the depoliticization of climate change.

1. Introduction

In climate and sustainability policy research, there is an increasing focus on processes of policy diffusion. Policy diffusion manifests itself when policy adoption in one jurisdiction (e.g., the national level) influences or is strictly adopted in other jurisdictions (e.g., the local level), or between the same level of government in federal systems. The primary focus in the global diffusion research is on how international climate goals and diplomacy at transnational levels create norms that influence climate policy diffusion at national levels (Lesnikowski et al., 2017; Biermann et al., 2022; Okitasari & Katramiz, 2022). Research has typically focused on diffusion via transnational institutions of climate change policies (Biesenbender & Tosun, 2014; Simon-Rosenthal et al., 2015; Kammerer & Namhata, 2018; Baldwin et al., 2019) and the sustainable development goals (SDGs) (Okitasari & Katramiz, 2022).

Although many national governments committed to the UN SDGs or

the Paris Agreement have poor records in achieving global mitigation targets (Okitasari & Katramiz, 2022), there is nevertheless an observed diffusion of policy ideas, norms, and pathways. Countries that have ratified the Paris Agreement adopt certain climate policies via learning and emulating norms that are derived from these multilateral agreements (Bernauer, 2013; Fünfgeld, 2015). Depending on the democratic mechanisms and the governance structures, subnational or local governments could also be incentivized to domesticate global climate norms via these transnational networks. Pro-climate policy adoption, for instance, increased in the Democratic states of the United States after Trump's election (Bromley-Trujillo & Holman, 2020).

The literature accounts well for how the organizations operating in national governments mediate the process of adopting and mobilizing global norms in a given domestic context through political leaderships and policy entrepreneurs (Checkel, 1997; Acharya, 2004; Kingdon, 2014). However, we suggest that political actors can also use norms

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more strategically involving both depoliticization and repoliticization. Politicization in our context means making a matter a subject of public policy making and discussion (De Wilde & Zürn, 2012), and depoliticization refers to allowing less room for political conflict (Wood, 2016).

This article enhances our understanding of how norms are used to depoliticize and repoliticize climate change at different scales. We ask the question, how are global norms used strategically for domestication at the local scale, and do these norms lead to depoliticization or repoliticization of climate change locally? In our analytical perspective, governments and other political actors are not simply recipients of global and diffused climate norms. They often convert, contest, and mobilize these norms strategically to advance their political goals. We use the term “norm domestication” to describe this process, bridging the gap between the initial generation of new norms at the international level and their eventual local adoption (Restoy & Elbe, 2021). From this perspective, governments and political actors that trace, and lead, norm domestication processes might repoliticize and claim a new political space for climate change, while controversy over diffusing a global norm occurs differently at the national government level.

Empirically, the study focuses on climate policy diffusion at three jurisdiction levels (national, metropolitan, and district) in Turkey. Straddling between the European progressive climate agendas, being a long-term European Union (EU) candidate, and authoritarian tendencies in national policymaking, Turkey reveals stark contrasts. Turkey promotes ambitious global climate goals in the international arena, but maintains more reluctant attitudes at the national level. A unitary state with carbon emission levels is steep and steady (World Bank, 2019); Turkey’s fossil-intense economic growth priorities contradict its global and regional climate mitigation commitments (e.g., the Paris Agreement and the EU candidate status), but also shape the country’s climate policy that is diffused in multiple jurisdictions. Our analysis uses topic modeling and network analyses of 62 climate change-related policy documents and interviews with 30 high-level officers conducted at the three jurisdictional levels in Turkey.

We find that the Turkish government uses climate policy diffusion to depoliticize climate change via creating ad hoc climate coalitions, co-opting local innovations, and pushing the local jurisdictions to seek external climate-related funds. Meanwhile, the local governments domesticate ambitious climate goals and repoliticize climate change via local climate entrepreneurs and collective actions derived from civic epistemologies. The wider implications of the study are that it advances understanding of approaches in norm domestication in climate and global environmental change domains and illustrates that global policy diffusion studies should recognize the way that local actors may use global norms to repoliticize climate and sustainability policies.

The remainder of the article proceeds as follows. Section 2 describes relevant literature from public policy and the larger social scientific scholarships on climate policy diffusion. Section 3 provides background context on the Turkish case and presents the research design and methods. Section 4 presents three emerging themes identified through the analyses that highlight the rationales for depoliticization and repoliticizations of climate change at the three jurisdictional levels in Turkey. Sections 5 and 6 summarize our findings and discuss broader implications.

2. Theoretical context

To contribute to the broader literature, we first situate our study within the broader debates on global policy diffusion and discuss the conceptual lens of norm domestication. Then, we address research literature gaps by conceptualizing policy diffusion and norm domestication on the one hand, and repoliticization and depoliticization on the other. This culminates in a presentation of our conceptual framework.

2.1. Global climate policy diffusion and norm domestication at the local scale

In the public policy literature, the general assumption concerning policy diffusion is that governments have limited capacity to address complex issues, such as climate change (Biesenbender & Tosun, 2014; Simon-Rosenthal et al., 2015; Kammerer & Namhata, 2018). They make up for this limited capacity by learning, emulating, or adopting policies that are successful in other countries (Rose, 1993; Dolowitz & Marsh, 2000; Baldwin et al., 2019). Research has addressed multiple aspects of this, such as how particular policies are learned from abroad and why specific policies are selected for adoption (Braun & Gilardi, 2006; Knill & Tosun, 2009), and the roles of transnational institutions and networks for policy learning, emulation, and transfer (Shipan & Volden, 2008; Gordon, 2013; Maggetti & Gilardi, 2014; Yazar et al., 2020). It is well recognized that international policy diffusion and transfer are conditional upon domestic politics, such as political opportunity (Biesenbender & Tosun, 2014), and economic underpinnings, such as privatization and deregulation of national economies (Graham et al., 2008).

A key insight illustrated well by some studies is that policy “diffusion” or “transfer” is not a simple, straightforward process where policies are directly adopted and emulated. Policies and ideas about them are used strategically by governments and political actors. This is an understudied area, although some contributions in the literature shed light on how this occurs. Scholars from disciplines beyond political science, especially in human geography, have also explored how specific policies, either set at transnational levels or seen as successful in one country, are mobilized by political elites and corporate interests in networks across and beyond the territorial borders of states (McCann & Ward, 2012; Peck & Theodore, 2012). This “policy mobility” literature illustrates that there is typically a distinct political agency behind the flow of policy ideas (Temenos & McCann, 2013, p. 346). In other words, policy diffusion is far from a politically neutral process.

Within processes of climate policy diffusion, there are often tensions between national agendas and local needs (Baldwin et al., 2019). Therefore, this diffusion can have different outcomes locally. Local policymakers can integrate climate policies diffused from transnational and national institutions into their own local institutional structures in widely different ways. Climate policy diffusion can be used to introduce substantial changes to mitigate the impacts of climate change, or it can multiply existing rules and regulations without introducing substantive policy change for climate actions, resulting in ineffective policy accumulation (Biesbroek, 2021; Knill et al., 2021; Yazar et al., 2022). Local governments can also reconfigure global norms and create a leverage point for change (Bryant & Thomson, 2021) to embed global norms in local policy settings (Capie, 2012; Zimmermann, 2016; Nem Singh & Camba, 2020).

To account for this analytically, we build on the concept of norm domestication as a complement to the concept of policy diffusion. Diffusion points to the process by which policy ideas move between policies and suggests a relatively harmonious integration or adoption of new solutions or instruments. In climate policy, policy diffusion does not necessarily involve challenging existing regulatory frameworks in fossil fuel policy regimes. In fact, climate policy diffusion from national to local levels might overshadow the fossil fuel phaseout and depoliticize climate change not only through the policies and policy instruments but through the public discourse and salience to enhance the policy stability that entrenches fossil interests (Paterson et al., 2022).

By contrast, norm domestication captures the politics involved in this process. We draw this concept from Acharya (2004), who argues that governments must often adapt an international norm that they have appropriated before introducing it into internal practice (domestication), aligning it with local realities. In this way, “local” governments and nongovernment actors—such as local elites, nongovernment organizations, or other civil society actors—can also make strategic use of

this international norm and advocate for it to be either adopted, localized, or contested. In this sense, norm domestication is inherently political and carries the meanings of repoliticization, in which climate change becomes the subject of public policy-making and discussion. Of course, there may be tensions between local and national governments in that they recognize international norms differently, and local governments can be limited in their ability to advance their claims to national governments (Acharya, 2004; Stevenson, 2013). The conflict between the local and state governments in recognizing and effectively addressing an international norm pushes the local administrations toward seeking new collaborations (Yazar, 2022), and local authorities appear to be increasingly joining international city-to-city networks to enhance climate policy learning (Haupt et al., 2020).

2.2. Conceptualizing (re)politicization amid norm domestication

It is critically important to better understand the political effects of climate policies. For this article, we make use of an analytical framework that links global policy diffusion to depoliticization at the national scale, and norm domestication to repoliticization at the local scale. The framework is illustrated in Fig. 1. Here, we explain the key conceptual linkages in this framework.

As scholars have pointed out, there is a clear risk that climate governance becomes complex and technocratic, and the climate issue is depoliticized. This means that governments are less likely to develop climate policy as part of public interest negotiation (Kenis & Mathijs, 2014; Swyngedouw, 2021; Yazar & York, 2022). Of course some cases, such as current US politics, shows that strong politicization is a detrimental to climate policies. But depoliticization is arguably also potentially problematic, as climate policy is removed from public debate, interest negotiation and oversight.

Diffusion processes can be facilitated by such depoliticization. In processes of diffusion, policies tend to be harmonized and folded into

existing institutional designs. In the climate area, this results in a set of complex and multiple initiatives within formal institutions and policy sectors that, despite internal contradictions and tradeoffs (Vogel & Henstra, 2015), serve to stabilize the existing institutional design. For instance, Paterson and co-authors (2022) consider that the Climate Change Committee and the legislation of carbon budgets in the United Kingdom provide great examples of how climate policy is depoliticized via expert-driven decision-making structured as a separate institutional structure that exists alongside other, often contradictory, national government policies. In such a complex governance regime, there is a wide range of different and often divergent goals (Milhorance et al., 2020; Yazar & York, 2021). Arguably, diffusion of transnational norms in climate policy can contribute to depoliticization because its ideas, goals, and instruments are enrolled and harmonized into existing governance structures in ways that increase their complexity, enhance the stability of the current policy regimes, and uphold existing political power structures.

Conversely, the idea of norm domestication initiates consideration of the types of diffusion processes that may serve to repoliticize climate policy (Yazar, 2022). Repoliticization can be seen as widening participation in the context of politics and the processes in which actors alter the roles of institutions through networked participation, discourses, and knowledge exchange (Paccoud, 2019; Beveridge & Koch, 2021; Kjærås & Haarstad, 2022). Policies can also be reshaped by political action, which is designed to achieve a certain purpose by changing interest groups, resources, and preferences in political channels (e.g., by lobbying, policy entrepreneurship, participation in local government or elections, and public discourse) (Stokes, 2020). Thus, as well as norm domestication processes being traced, led, and fostered by multiple decision-makers within the formal governance structures (e.g., certain departments or individuals within a municipality), nonstate organizations are also engaged in norm domestication. This is through either informal channels, such as the active participation of citizens in movements for change (Howse & Teitel, 2010; Zimmermann, 2016), or claiming space where controversy over domesticating a global norm takes place (e.g., city councils).

Environmental justice activists are a great example of how political actions significantly influence change at the local scale and affect policy learning (York & Yazar, 2022), through either civic epistemology—that is, “the institutional practices by which members of a given society test and deploy knowledge claims used as a basis for making collective choices” (Jasanoff, 2011, p. 255)—or becoming part of local governments to practice their knowledge, such as in city planning or waste management (Méndez, 2020). Thus, repoliticization via norm domestication is not static or linear but dynamic, and it consists of multiple dimensions that can introduce radical change at the local scale but also lead to policy learning (Heikkinen et al., 2019; Nightingale et al., 2022) for national governments.

Our analytical framework builds on assumptions drawn from the literature discussed above. National governments generally involve multiple political factions that can lead to gridlock in climate policy decision-making due to competing interests and ideological polarization of political actors. Hence, we argue that depoliticization of climate change at the national level is more expected, especially in unitary states with highly state-centric governance which practice state steering in local jurisdictions (Peters & Pierre, 2016). Local governments, on the other hand, can focus more on in-situ climate solutions to mitigate the impacts of climate change for their local communities (Yazar & York, 2023), and can therefore be expected to repoliticize the issue. To summarize this analytical framework, we understand policy diffusion processes as emanating from transnational and national government actors. These processes serve to stabilize and depoliticize the climate policy arena, as illustrated in red in Fig. 1. Then, norm domestication and potential repoliticization at the local scale may influence the national scale, as illustrated in yellow in the figure.

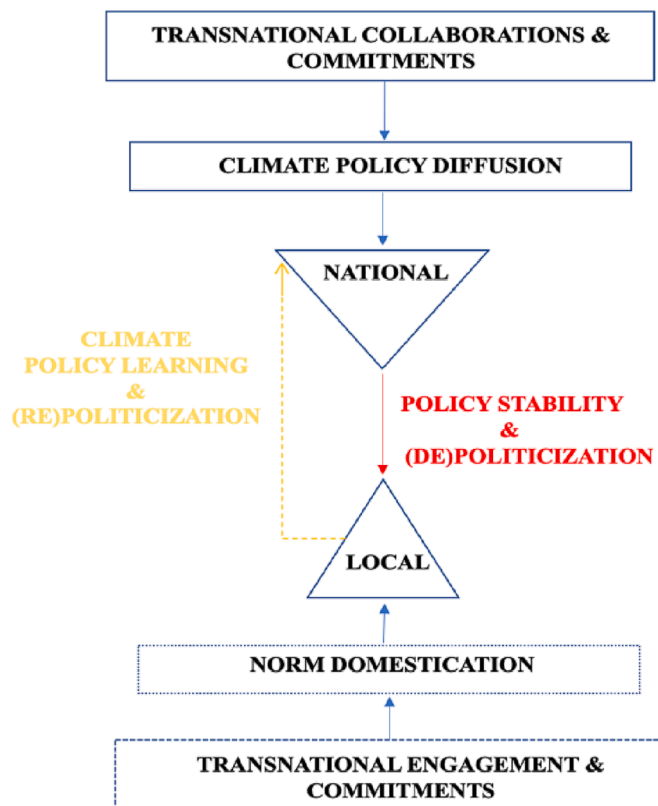


Fig. 1. Conceptual diagram of climate policy diffusion at the national scale vs. norm domestication at the local scale.

3. Case study and methods

The framework illustrated in Fig. 1 is applied to study climate policy diffusion in Turkey. We employ a novel methodological approach using topic modeling and network analyses on a range of climate change-related policy documents and conduct interviews with high-level officers at the three jurisdictional levels in the country. The case is highly relevant to studying climate policy diffusion because of the stark contrast between the local governments' willingness to achieve ambitious climate goals and the much more reluctant attitudes of the national government toward transformative climate policies and actions.

3.1. Case study

Turkey is a unitary system with two levels of government, central and local, with highly state-centric governance, known as static statecraft, that practices state steering in local jurisdictions (Peters & Pierre, 2016). There are two types of local government in Turkey, namely local municipalities and metropolitan municipalities (for settlements with a population exceeding 750,000). The administrative structure of local governments consists of an elected mayor and municipal council. Overall, there are 30 metropolitan municipalities in Turkey, subdivided into district municipalities with their own governing structures and locally elected mayors. Metropolitan municipalities oversee all their constituent districts, organizing and monitoring their operations. However, district municipalities participate in the policy-making processes through their city council, can own subsidiary companies, and are responsible for providing municipal services, from social services to infrastructure. Municipalities in Turkey are dependent financially on the central government, as funds come from the central government in the form of tax-sharing arrangements, long-term credit, and direct cash transfers (Akilli & Akilli, 2014). Recent economic reforms have deregulated and privatized state-owned companies (Adaman et al., 2017), but there has also been an increase in centralized decision-making. This intensified after the 2016 coup d'état attempt.

Climate change has been included in the national policy and strategy documents since 1999. In 2021, Turkey ratified the Paris Agreement to achieve net zero emissions by 2053. Regarding policy diffusion of climate mitigation, the 2007 Energy Efficiency Law, following the EU mandates, marks a fundamental transformation of Turkey's national energy efficiency movement, largely because promoting efficiency is key to lowering Turkey's energy dependency (Acar, 2013). When it comes to climate adaptation, researchers show that there is little evidence of hard regulations and guidance in Turkey because of a refusal to acknowledge the existence of maladaptive policies (Turhan et al., 2016; Daloğlu Çetinkaya et al., 2022).

The energy efficiency regulations to mitigate climate change, nationally driven goals to access climate funds, and the Paris Agreement provided the impetus for the local governments to collaborate with multiple institutions within and outside Turkey. For instance, many metropolitan and district municipalities in Turkey are members of transnational municipal networks (TMNs), such as the Covenant of Mayors, International Council for Local Environmental Initiatives, and C40, and they adopted climate change action plans or sustainable energy plans through one of these networks. As of February 2022, 16 metropolitan municipalities and 17 district municipalities in Turkey had adopted climate action or climate mitigation measures, including Greenhouse Gas (GHG) Inventory and Sustainable Energy plans.

3.2. Document selection

In this section, we explain the rationale for document selection and our research methods. We collated an original data set that consists of climate change-related documents from three jurisdictions (national, metropolitan, and district) in Turkey. To develop a manageable and up-to-date data set, we restricted the collection of documents related to

climate change at the national level to those dated from 1999 to February 2022. Documents selected at the national level were gathered from the ministries' document databases. For local governments, we searched for documents directly from their web pages or requested documents via phone calls and emails if the documents were not available online. We restricted the search for local-level climate-related documents to only the most recent ones up to February 2022, as some local governments have more than one climate change and related action plans (e.g., Sustainable Energy Action Plans, Sustainable Energy and Climate Change Action Plans, and GHG Inventory Actions). Overall, we gathered 62 documents: 29 national-level, 16 metropolitan-level and 17 district-level documents. We specifically coded data extracted from the documents as follows:

- The documents are translated in English and one-paragraph executive summaries of each document are selected that reflect the overall content to conduct the topic modeling analysis.
- Each document has a list of participants/collaborators involved in its preparation. We identified these collaborators and listed them as "networks" (e.g., the Ministry of Energy and Natural Resources) and clustered them under "actor types" (e.g., national government). Both climate policy diffusion and norm domestication processes include a diverse set of stakeholders within and outside of a given country context. Thus, identifying specific actors, "networks," and broader "actor types" will allow this study to identify the similarities and differences between networks and actor types regarding climate policy diffusion at the national level vs. norm domestication at the local scale.
- We use actor types in the topic modeling and find linkages between them and the identified topics (see Section 3.3). The specific actors listed under "networks" are used to run network analyses (see Section 3.4).

Our coding template, provided in Annex I, lists which specific documents are gathered from the three jurisdictions to run topic and network analyses.

3.3. Topic modeling and actor types

Social science research has benefitted from text mining, which enables researchers to analyze, sort, and categorize large volumes of data to explore and reveal trends and patterns within it (Lesnikowski et al., 2019). For this analysis, we used the topic modeling approach, specifically a latent Dirichlet algorithm (LDA), to determine the themes or topics in the selected documents, assuming that each document represents a combination of topics. In topic models, algorithms aim to discover the distribution of topics that emerge across a body of documents, and these algorithms can associate words with probabilities (Blei & Lafferty, 2009). This LDA method is increasingly used in the literature on social networks and climate policy to find emerging themes or topics in diverse sets of data (Benites-Lazaro et al., 2018; Hsu & Rauber, 2021; Savin et al., 2020).

For this study, first, we identified, listed, and compared the most frequent topics at each jurisdictional level in Turkey, and then we focused on actor types clustered around and dominating the identified topics at each level. This enabled us to illustrate the relationships between the identified topics and actor types (e.g., national or local government) to understand the connections between different actor types and the strength of these relationships within each topic.

Next, we conducted the network analysis using the original data from the selected documents, including state-of-the-art visualization techniques and the Louvain community-detection algorithm implemented in the NetworkX package for Python computer programming. The network analyses show connections between specific actors identified from the documents and allow us to determine which actors create hubs and dominate the overall climate change agenda settings in each

jurisdiction. Thus, the topic analyses illustrate which specific actor types collaborate in each identified topic, whereas the network analysis shows to what extent such collaborations are reflected in the overall climate agenda-setting at each jurisdiction level in Turkey.

3.4. Expert interviews

We also drew on our long-term engagement with the cases at hand and experiences from multiple research projects on the broad theme of climate change governance. In the specific cases discussed directly in this study, we use interview data, with interviews conducted in the period from May to July 2022 with the 26 local officers (14 metropolitan- and 12 district-level officers) and 4 national government officers in Turkey (see Annex II for the list of interviewees). The municipal officers were identified from the analyzed documents; some played a role in leading the document writing processes, and some of them participated in the process of climate action plans. The interviews generally took 45–60 min and were conducted through face-to-face communication, email, and phone calls. The interviews were designed to best capture the results derived from the quantitative text analyses and actor mapping. Therefore, we first shared the topic modeling and actor mapping results with the interviewees during the interview and then asked follow-up questions related to the emerging themes and the actor types and networks that were identified in the document analyses.

4. Results: Patterns of depoliticization and repoliticization of climate change in Turkey

To trace patterns of depoliticization and repoliticization in the Turkish case, we use the aforementioned methods to analyze the linkages between how climate change is framed (climate topics) and by whom (actor types and networks across the three jurisdictional levels). Our results are presented in terms of our key themes, as follows: 1) most frequent climate topics in each jurisdictional levels in Turkey (see Fig. 2), 2) the most frequent (dominant) actor types in each identified climate topics the three jurisdictional levels (see Fig. 3), 3) the specific

actors that dominate networks in each jurisdictional level for overall climate actions in Turkey (see Fig. 4), and 4) interview results to supplement the quantitative analyses.

First of all, our topic modeling for 62 climate policy documents revealed 11 topics at the national level, 5 at the metropolitan level, and 9 at the district level (see Fig. 2 below). Also, see Annex I for topic results and identified themes for each document.

Fig. 3 below presents the topic analysis with “actor types” in graphical form for the three jurisdictional levels, with panels A, B, and C corresponding to the national, metropolitan, and district levels, respectively. They show the identified actor types (e.g., national, private sector) at the top of the graph, and each actor type is listed from left to right according to their presence (frequency) in each topic illustrated in red triangles at the bottom. The line thickness indicates the number of networks clustered under the actor types and their involvement with the identified topics.

4.1. Incremental adjustments vs. Transformative change for climate actions

As illustrated in Fig. 3 topic maps, we find that incremental climate mitigation targets dominate the national level, while more transformative climate mitigation actions and targets are found at the lower jurisdictional levels. “Incremental adjustments” refer to changes that are aligned with and tend to maintain the existing institutional responsibilities and ensure depoliticization of climate actions from transformative agendas.

4.1.1. National incremental adjustments

More specifically, the results for the national level show that a climate mitigation target, “increase energy efficiency,” is the most frequent topic mentioned, followed, in decreasing order, by “increase water measures,” “desertification risk action,” “national drought strategy,” “renewable energy strategy,” “national forest protection,” “environmental pollution planning,” “national development effort,” “natural resource development,” “investment municipal waste management,” and “local disaster

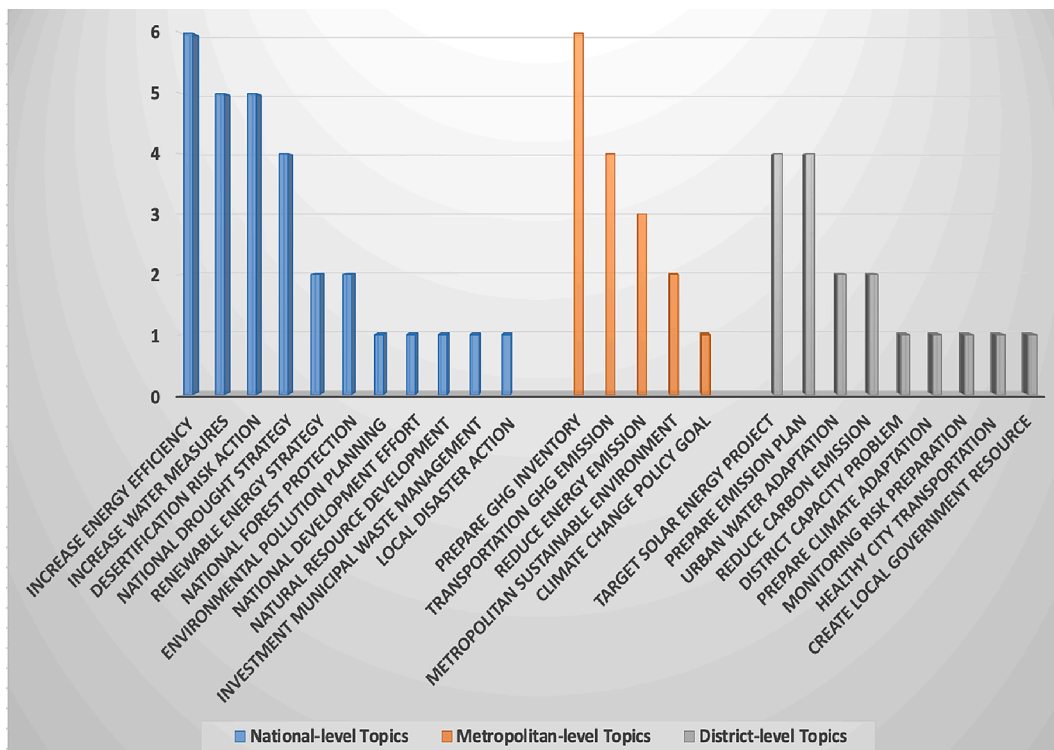
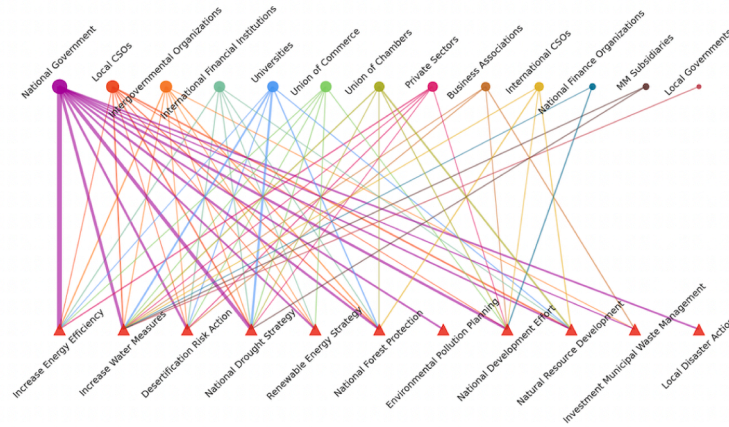
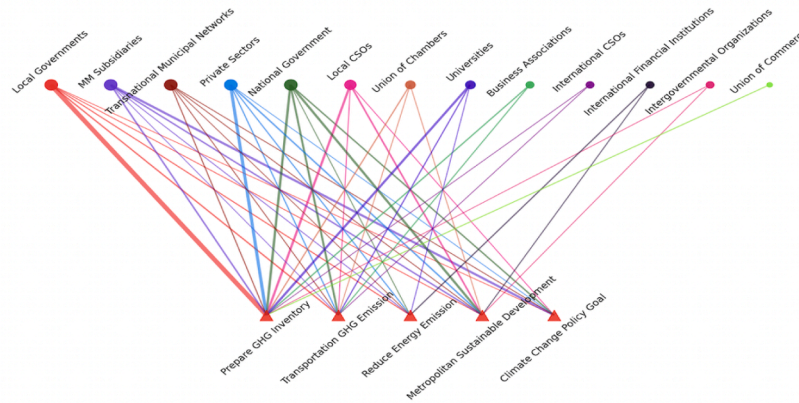


Fig. 2. Most frequent climate topics in each jurisdictional level in Turkey.

A. National level



B. Metropolitan level



C. District level

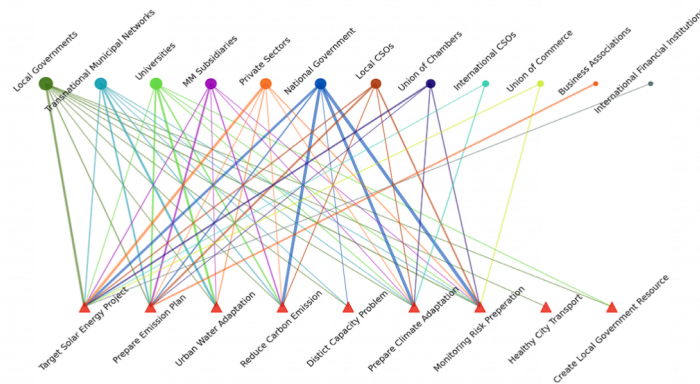


Fig. 3. Topic analyses with actor types for three jurisdictional levels in Turkey.

action.” Overall, “increase energy efficiency” is the most and “renewable energy strategy” is the second most frequent topic among *climate mitigation* at the national level. Increase water measures, forest protection, desertification risk action and drought strategy are the most prominent *climate-adaptation* topics at the *national level*. In addition, local civil society organizations (CSOs), intergovernmental organizations, and international financial institutions are listed as the most collaborative actor types for each topic at the national level (see Fig. 3A). Although the actors in the national government frequently appear in the two topics of “increase energy efficiency” and “national draught strategy,” the topic with the most diverse actors is “increase water measures”, whereas “investment municipal waste management” and “local disaster action”

have the fewest actor types. Interestingly, local governments and their subsidiaries are not included in these two actions and even remain sidelined by the national government, especially in relation to local disaster action. Similarly, municipal waste management is taken care of by actors in the national government, intergovernmental organizations, and business associations, without local governments’ participation.

4.1.2. Metropolitan replicates national incremental adjustments by focusing on emissions

At the *metropolitan level*, the results show that mitigation targets are the most prominent topics followed by “prepare GHG inventory,” “transportation GHG emission,” “reduce energy emission,”

C. District level

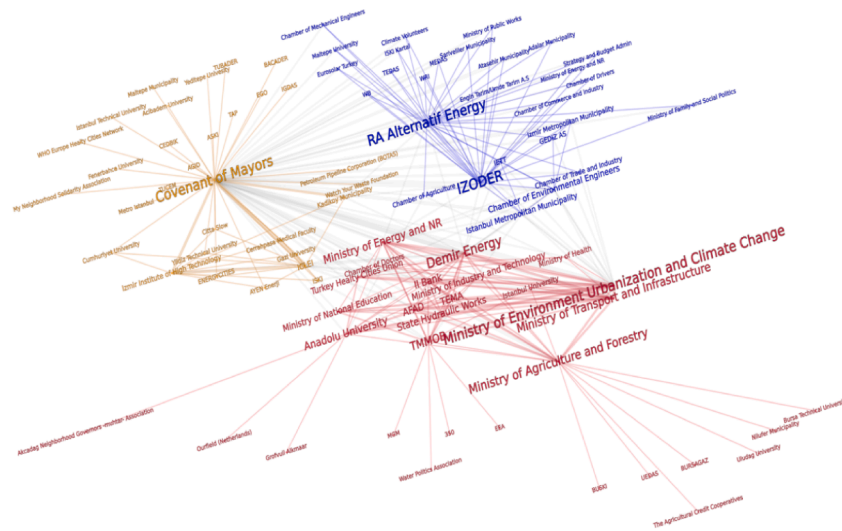


Fig. 4. (continued).

level places great emphasis on mitigation targets, in this case those relating to solar energy and emission plans. TMNs, universities, and MM subsidiaries are by far the most frequent actor type for all topics after the local governments (see Fig. 3C), and they dominate the climate change agenda-setting and actions at this level. The most frequent actor types are clustered under the topic “target solar energy project,” which is especially dominated by the national government, private sector, and local government actors. The topic “healthy city transport” remains under the radar of local governments only, and “create local government resources” involves only local government and university actors. The topic analysis revealed that “urban water adaptation” is the most frequent topic related to climate adaptation, followed by “prepare climate adaptation” and “monitoring risk preparation.” The topic “urban water adaptation” brought together clusters of actors dominantly from the TMNs, universities, MM subsidiaries, and the private sector. Interestingly, actors from the national government most frequently participate in the topics “prepare climate adaptation” and “monitoring risk preparation,” but they do not engage with the topic “urban water adaptation.”

Fig. 4 Networks and cluster modularity maps for three jurisdictional levels in Turkey below show the specific networks involved in the overall climate change agenda-setting at the three jurisdictional levels in Turkey, with panels A, B, and C corresponding to the national, metropolitan, and district levels, respectively. The three colors in three network maps, blue, yellow, and red, represent different modularity clusters for each jurisdictional level. Specifically, within each distinct color group, specific actors are more densely connected to certain actors with shared interests, as compared to their connections with nodes that lie outside of their respective color group. Bold text is assigned to all actors in each network, and larger texts illustrate the most central and collaborated actors in each modulatory cluster highlighted in three colors. Less central and less collaborated actors are depicted using smaller texts.

4.2. Nationally dominated vs. alternative climate networks

As explained above, and illustrated in Fig. 3, the actor types linked to the identified topics indicate that climate change agenda-setting and policymaking in the three jurisdictions in Turkey include diverse sets of stakeholders. There are important differences in overall climate change networks at the national and local jurisdictional levels. Specifically, the

network analyses in Fig. 4A for the national level reveal that specific ministries have created strong subnetworks, including intergovernmental organizations, CSOs, and emerging climate mitigation-related businesses. Such nationally formed and dominant climate networks with big businesses are more visible at the metropolitan level in Fig. 4B, along with TMNs. At the district level in Fig. 4C, TMNs are the most dominant actors and districts are less likely to be under the influence of national climate networks compared with the metropolitan level. Network results in each jurisdiction are detailed below.

4.2.1. National climate networks dominate climate actions in Turkey

At the national level, the network algorithm detected three dominant subnetworks within the larger networks. The network displayed in red in Fig. 4 A has the most influential ministries in climate actions, the MoEUC and the MoENR, and they are predominantly linked with the Ministry of Foreign Affairs and the TMMOB (Union of Chambers of Turkish Engineers and Architects). Considering the number of municipalities linked to this network, we can infer that this network sets climate targets that are influential for setting metropolitan-level climate actions by the two influential ministries. The network in blue in Fig. 4 demonstrates the two most dominant actors in climate adaptation space, the MoAF and the State Hydraulic Works. This network also includes actors such as the Union of Chambers and Commodity Exchanges of Turkey and TEMA—the strongest local CSO in Turkey, founded by the industrial elite, with traditionally close ties to the state—as well other actors from prominent intergovernmental and international financial organizations, such as the UNDP and European Bank for Reconstruction and Development (EBRD). Finally, in the yellow network, disaster and health-related climate impacts are clustered around the Ministry of Health (MoH) and actors predominantly from the Directorate of EU Affairs, the Ministry of Treasury and Finance, Il Bank, the Ministry of Interior Disaster and Emergency Management Presidency, and the Union of Turkish Municipalities, which has strong ties to the ruling party in Turkey.

4.2.2. National climate networks & transnational engagement at metropolitan-level

At the metropolitan level, the network algorithm, highlighted in red in Fig. 4 B, shows that the MoEUC dominates this network and that it frequently links with the Ministry of Transport and Infrastructure, TMMOB, TEMA, the Association of Thermal Insulation Water Sound and

Fire (IZODER), which has strong lobbying ties with the MoEUC, the Association of Energy Efficiency, and Ekodenge (a private company); this creates the most dispersed networks at the metropolitan level. The blue lines of the networks outline three dominant players in addition to those of the red network. Specifically, the Covenant of Mayors is the dominant TMN frequently linked with Il Bank, a national financial institution, and Demir Energy, a private consultant company. The networks also include ministries, such as the MoENR, the MoAF, and the MoH. The yellow lines reveal strong ties with the Strategy and Budget Administration and GTE Carbon. In this context, the private sector includes large corporations and consultancy firms that influence and guide local governments in preparing climate action plans.

4.2.3. Transnational engagement dominates districts

At the *district level*, the Covenant of Mayors, a TMN, is by far the most dominant networked actor influencing the climate change agenda-setting and actions at the district level, as highlighted by the yellow lines in Fig. 4 C. The blue lines that indicate the second most influential network include IZODER and RA Alternatif Energy, an energy company. The red network shows that the actors at the national level, specifically the MoEUC, the MoENR, and the MoAF, create their own hubs, predominantly engaging with Demir Energy and TMMOB.

4.3. Interview results on depoliticization vs. Repoliticization

Based on the topic and actor network analyses, the interview results indicate incremental actions and targets corresponding to incremental change that align with depoliticization of climate policy at the national government level, using institutional tools, such as the creation of new local organizations that have close ties to the national government. Conversely, the metropolitan- and district-level actions and targets align more closely with what we have termed the repoliticization of climate policy via transformative actions.

4.3.1. National government depoliticizes climate change

When complementing this analysis with material from our interviews, two depoliticization factors influence the three-climate mitigation-related phenomena: emission inventories, transport, and solar energy.

First, the national government, specifically the Ministry of Environment Urbanization and Climate Change (MoEUC), has experienced challenges in measuring carbon emissions and acquiring accurate data from the local jurisdictions in Turkey. Therefore, through a new regulatory framework accepted by the MoEUC, all local governments are required to establish a Zero Waste and Climate Change Department, and the Ministry aims to collaborate with the local governments for climate data inventories. Such top-down intervention allows the Ministry to monitor local climate actions [M1; M2; M3; M4; M9; M10; M11; M12, N3]. During the interviews, many informants mentioned the limits on metropolitan municipalities' ability to regulate to achieve specific mitigation actions, especially regarding large industries [M2; M13; M14; D1; D3]. The fact that metropolitan municipalities with carbon-intensive sectors within their borders are administratively limited in measuring or even providing reliable carbon data on these sectors to implement in-situ mitigation actions stands in stark contrast with the climate mitigation action plans.

Second, the funding mechanisms, both from the national government through the Regional Development Agencies and from intergovernmental organizations, such as the EU and the United National Development Programme (UNDP), specifically target local governments with projects concerning clean energy in public transportation and solar energy investments [M6; M5]. Informants from the districts stated that cost-effective solutions targeting external funding (dominantly the EU-related funding) are preferred over long-term transformative solutions by the MoEUC and the MoENR. *“The Ministries generally provide expertise in project-writing to the local governments, and we devote serious time to*

developing ideas and finding local solutions, but if the funding agencies do not accept a project, it dies under the shelves, and the Ministries lose interest in it. Climate actions, thus, flash like a firecracker [D11].” Informants also mentioned the obstacles to accessing the national climate funds, with such obstacles created by dominant partisan regions with strong lobbying ties [D12]. One informant at the district level, whose mayor is from the ruling party, stated that the financially and politically strong lobbies from metropolitan municipalities use their political influence and gain easier access to funds and financial benefits than those from the financially and politically weak district municipalities [D7]. Specifically, Demir Energy was mentioned in almost all the interviews at the district and metropolitan levels. The company excels at providing consultancy services to local governments and, in some cases, preparing their climate action plans or sustainable energy plans that are required by transnational municipal organizations to fulfill their commitments. GTE Carbon is another frequently mentioned consultancy company based in Ankara and London, with strong ties with the Strategy and Budget Administration in particular. When asked about why TMMOB, which is politically opposed to the national government, is one of the actors with most collaborations at national-level, one interviewee mentioned that TMMOB has historic connections to policymaking especially in planning and architecture in Turkey. The interviewee noted, *“we are mostly engineers, architects, planners, working at the MoEUC and MoENR, and members of TMMOB, thus we have both personal and institutional ties to it [N2].”* Another interviewee commented *“On top of that, the national government does not care much about who involve in writing these reports. Although the contents of our policy and technical reports are excellent, everyone from the beginning knows that they will remain in the shelves [N4].”*

4.3.2. Repoliticization pushed from the districts

The national government's reluctance to implement transformative climate actions has led the local governments to initiate and implement their own climate actions. Some municipalities closely collaborate with European networks, such as Cittaslow and Energycities, to achieve clean energy-based living and sustainable consumption. Others collaborate with local universities, especially in solar investments and energy production, and frequently organize climate events to inform locals about climate change and alternative energy resources [D2; D5]. In addition, we observed that some metropolitan and district municipalities have institutionalized renewable energy and energy efficiency throughout the municipally owned buildings and are operating “energy units” under their organizations [D6; D10]. Their energy efficiency and renewable energy projects have received significant attention from the Ministry of Energy and Natural Resources (MoENR). Indeed, the Ministry has selected these local governments as pilot cities and recommended replicating their successful organizational design in the creation of energy units to other local governments in Turkey [D6].

Climate adaptation-related actions are the most heated topic in the districts, and some climate actions constitute repoliticization. More specifically, the Ministry of Agriculture and Forestry's focus on climate adaptation is broadly on agriculture and water resource management. It is highlighted that the national government has long focused on increasing water efficiency by providing incentives for high-efficiency irrigation systems (aligned with the water measures topic) while also investing in soil measures to combat desertification (aligned with “desertification risk action” topic). The informant also stated that national governments (and political parties, especially during political campaigns) in Turkey have historically prioritized water access, especially in metropolitan areas and agriculture-based regions, to seek political support and secure votes. Thus, due to the politicization of water access and its distribution, there have been disputes between the local governments (especially those with mayors from parties in opposition to the national government party) and the national government in managing water resources and access [N1]. Yet, at the district level, nature-based solutions were identified as the preferred adaptation strategy,

such as creating more green corridors and blue–green infrastructures to mitigate the increasing heat and heat island effects within the district boundaries [M7; D4; D9]. One district municipality, which was recently hit by an earthquake and tsunami, actively participates in civic movements to support climate adaptation in its district and opposes the national government's marina project, which it argues will exacerbate maladaptation in the region [D5].

5. Discussion: Patterns of depoliticization and repoliticization of climate change in Turkey

Based on this outline of the patterns of climate policy diffusion and networks at national and local levels, we now examine crosscutting findings related to depoliticization via climate policy diffusion and repoliticization of climate change via norm domestication. The analyses outlined two main phenomena that reveal how climate change is depoliticized at the national level and repoliticized at the local scale in Turkey.

5.1. Depoliticization through the creation of ad hoc climate coalitions

Our data analysis reveals a clear depoliticization of climate change through the patterns of climate policy diffusion, in particular through the creation of ad hoc climate coalitions. The bureaucracy (predominantly the MoEUC and the MoENR), the energy-related industry and consultancy companies, newly emerged sustainability–energy efficiency associations, and politicians have co-created ad hoc climate coalitions and set the climate change agenda in Turkey. We use the term ad hoc in that these coalitions are not stable, as the actors, especially certain businesses, are subject to change or merge with other coalitions under the guidance of the two powerful ministries in the climate change area. As shown in the network analyses (see Fig. 4), the two ministries (the MoEUC & the MoENR) have gathered the emerging businesses related to climate mitigation around themselves and formed a dominant climate network at the national level. These networks, with similar actors, but sometimes shifting coalitions, also dominate the metropolitan level and, to some extent, the district level.

The interview data described in Section 4.1 illustrates that Turkey's commitments to the global climate targets and the structural adjustments via the 2007 Energy Efficiency Law provided the impetus to national actors in distributing top-down political and financial power toward local jurisdictions. While climate change–related regulations are introduced to the local jurisdictions by the MoENR, the local jurisdictions are expected to institutionalize the locked-in mandates for energy efficiency-related policy diffusion, without any substantial guidance. Such fixed institutional arrangements for climate mitigation action have led to ad hoc climate coalitions, especially newly emerging energy consulting companies to depoliticize climate plans and target setting at local jurisdictions by following national guidance. The outcome of these climate coalitions is that they constrain the local governments under climate agendas that replicate nationally approved climate visions, especially in metropolitan municipalities. In this case, metropolitan municipalities in the same political spectrum as the national government replicate the national climate policy diffusion. Metro municipalities on the opposite political side, which hope to rule the country after the next national election in 2023, do not seem to offer alternative patterns of change either, the only exception to mentioning climate change as an act of their political discourse. Although the districts choose to domesticate more ambitious global mitigation goals that could contribute to policy learning, the national authorities have locked such actions into their fixed governance structure via officially recognizing the efforts and recommending their replication in other jurisdictions in Turkey to seek external funding. Furthermore, some of the EU-related funds are distributed directly from the national government. Inevitably, project fund-seeking climate actions are subject to depoliticization, as the selection of these project applications goes through the two powerful

ministries. Such control through ad hoc committees ensures depoliticization of climate change, as the climate solutions introduced through ad hoc climate coalitions are loyal to the national government and distilled from the radical changes (depoliticization via climate policy diffusion).

From the topic (Fig. 3) and network analyses (Fig. 4), it is evident that the national and district governments have specific climate adaptation targets yet competing priorities. The national government appears to control two local-level climate mitigation and adaptation issues: investment in municipal waste management, and local disaster action. The topics that emerge from the analysis align with the pressing issues currently being faced by Turkey. Turkey is already a water-stressed country and climate change exacerbates the pressure on the existing water resources. Although the country has begun investing more in monitoring and measurement of its surface and groundwater resources, enforcement of the regulations remains a work in progress, in alignment with the expectations of international directives. More importantly, local governments are not included in the most pressing adaptation issues due to the national government's varying political and economic priorities. Although climate adaptation actions are visible in the national agenda, and although long-term adaptation targets can be beneficial, specifically in agriculture-related issues, pressing urban adaptation issues raise concerns given Turkey's exponentially growing urban population.

5.2. Repoliticization via collective actions derived from civic epistemologies

Turkey desires to join the EU, harmonize its legislation with the EU in the energy efficiency sector, and access international financial funds to invest in the country's renewable energy potential – but without transformative climate actions. The gap left by the national government because of its failure to implement rapid, long-term, and in-situ climate actions has motivated the local governments to seek alternatives through engagement with multiple institutions within and beyond their jurisdictions. Norm domestication at the local scales has been sometimes navigated under the shadow of the national government (in the examples of metropolitan municipalities) or followed different directions that lead to the repoliticization of climate change (district municipalities). The political leaders of metropolitan regions, for instance, cite climate change in their political speeches and embed their climate visions in the municipalities. However, (re)politicization as an act of discourse remains insufficient for transformative change. Conversely, the network analyses also show that there are more dispersed climate networks in the districts in which a TMN, as an actor for norm domestication, creates larger hubs around itself. The district municipalities have claimed a political space to adopt bolder climate actions by engaging with these transnational and local actors (norm domestication). Consequently, norm domestication for more ambitious climate actions emerges as the creation of new platforms in which local political leadership and climate entrepreneurship have vital roles.

There are clear signs of norm domestication being adopted at the district levels, either using shadow networks and safety nets provided by the mayors, or issues salience through civic actions. There are powerful collective actions within some districts that both oppose large-scale investments that exacerbate the impacts of extreme weather events (e.g., the national government's marina projects) and support continued and new low-carbon energy sources (e.g., creating solar solutions via engaging with local universities, and seeking financial alternatives to invest in solar and wind power). These collective actions can result in (re)politicization of climate change not because they are directly opposing the national governments' political-economy agenda, but because these actions derived from civic epistemologies could reveal levers for change that extend well beyond the district into the more expansive realm of collective actions and lead to the dismantling of the dominant ad hoc climate coalitions in Turkey.

6. Conclusion

Our original data set of climate policy, which incorporates 62 climate policy documents and interviews with 30 public officials in Turkey, indicates that climate policy diffusion carries varying sociopolitical pressures that have implications to depoliticize climate change. Top-down policy diffusion is subtly very polemical. Specifically, policy diffusion is a collective action that includes various institutions and actors operating at multiple levels. Nevertheless, in this study, we have observed that climate policy diffusion via the national government polemicalizes civic epistemologies to a high degree by forcing local governments to determine climate action plans that target specific external climate funds. Thus, locally generated climate knowledge and ambitious actions is depoliticized by national ad-hoc climate networks to increase policy stability. Although there is a learning process by the national government through engaging with the local actors and learning their innovative climate actions, this learning is not institutionalized, but co-opted by the national policymakers, understood as powerful actors at the higher levels of government that entice or force less powerful actors at the local scales to act in ways that they favor.

Nevertheless, repoliticization is triggered by climate entrepreneurs and collective actions via civic epistemologies. Not only tackling climate change in democratic ways (such as by demanding change and pushing governments in that direction) but also consolidating such demands through transformative policy actions has the potential to alter the rigid institutional structure and introduce substantial changes. Overall, repoliticization of climate change via norm domestication at the local level emerges as local governments generate knowledge on climate change and are willing to take transformative actions along with—and compete with—the nationally endorsed climate policies.

Overall, we know comparatively little about how globally accepted climate policies and the norms that surround them are used by various political actors seeking to advance their own agendas. The implication of this study is that we now have a better grasp of the different ways global climate policies and norms are used and appropriated at different scales in one country setting. The Turkish case study is particularly relevant for broader understanding of climate policy diffusion processes, not only because Turkey is a unitary state and a democracy but with authoritarian tendencies. It is also a country that commits to global climate targets, in line with other largest global emitters, while lagging behind implementing transformative climate actions and glossing over the ambitious local climate actions that suggest high potentials for bottom-up climate-policy learning. This paper contributes to understanding how climate policy diffusion and norm domestication can have different political outcomes in achieving global climate goals and argues for increased policy attention to the strategic use of climate policy diffusion for the depoliticization of climate change.

CRedit authorship contribution statement

Mahir Yazar: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Visualization, Writing – original draft, Writing – review & editing, Funding acquisition. **Irem Daloglu Cetinkaya:** Data curation, Investigation, Methodology, Visualization, Writing – review & editing, Funding acquisition. **Ece Baykal Fide:** Investigation, Data curation, Methodology, Writing – review & editing. **Håvard Haarstad:** Conceptualization, Formal analysis, Writing – review & editing.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

Data will be made available on request.

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Appendix A. Supplementary data

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