

The innovative instruments of transnational municipal networks in the complex system of climate governance

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Abstract

In this working paper, I analyse Transnational Municipal Networks (TMNs) as elements of the complex system of climate governance and assess their potential for innovation through the study of their governance instruments.

Over the recent period, climate governance has experienced the rise of sub-state and non-state actors. Among them, TMNs, alliances cities create and or integrate to develop their climate action and be represented at the global scale, have received a lot of attention. Scholars have underlined their role in promoting local climate action and providing cities with cognitive, financial and political resources. They have also claimed their ability to bring innovation to climate governance by questioning who governs and how. Others imply that by combining institutional and market-based elements to elaborate and implement their actions, they generate a new system of governance from the middle. However, these efforts to examine the innovation role of TMNs need to be strengthened, considering the increasing complexity of the environment. More specifically, we must understand what TMNs do differently and how they may manage to change practices in the complex system of climate governance.

To this end, this paper focuses on the governance instruments used by TMNs to steer their members towards climate action. Whereas states and intergovernmental organizations usually recur to regulatory and economic instruments, displaying a traditional vision of authority, TMNs seem to favour instruments based on nodal and organizational resources. In that sense, their steering would be softer and more indirect. The prospects of this innovation are then discussed to understand whether it might represent an effective alternative to the current managing of climate issues.

Envisioning climate governance itself as a complex system, this paper analyses how change may emerge and diffuse in nonlinear ways to challenge dominant modes of governing. It will thus represent an interesting contribution to the discussion of the diverse strategies for effective environmental governance.

1. Introduction

After being framed for several decades as a cause of climate change, cities, like other sub-state and non-state actors, are starting to be seen as a positive actor of global climate governance. The 21st Conference of the Parties (COP21) of the *United Nations Framework Convention on Climate Change* (UNFCCC), held in 2015, thus encouraged these “non-Party stakeholders” to keep developing their climate action (Hale, 2016). A closer look reveals that Transnational Municipal Networks (TMNs) have greatly contributed to the promotion of cities and have become significant actors of global climate governance.

TMNs are alliances of cities these join voluntarily to tackle urban issues collectively and be represented at the global scale. This paper focuses on formal TMNs, that have a staff and headquarters; whose members are mainly cities coming from at least two different countries; and which consider climate action as one of their main goals. TMNs promote both the activism of cities and their own; contrasting the proactivity of cities with the stasis of states due to coordination issues, the *C40 Cities Climate Leadership Group* (C40) thus claims that “*while nations talk, cities act*”.

Several studies on TMNs stress their role in facilitating local climate action and promoting it at the global level (Hakelberg, 2014; Toly, 2008). As TMNs seem to have a significant effect on cities’ climate action, we must understand what it is TMNs do to steer their members. Considering the challenges of a complex world, it is also necessary to understand whether TMNs have the capacity to change practices in the complex system of climate governance and help create the transformative change we need to confront the ‘wicked problem’ of climate change. They are, after all, new actors with limited financial resources and no formal authority and legitimacy (Betsill & Bulkeley, 2004). Nonetheless, their networking ability (Hoffmann, 2011) gives them an important amount of information. This is a valuable resource, as its processing and diffusion are crucial for the adaptation and survival of the complex system. Added to the idea of non-linearity, this may indicate a promising role for TMNs.

To start answering these concerns, this paper first reviews the literature to understand the position of TMNs in the system. It then focuses on their innovation feature, which can be observed through the governance instruments they use to steer their members. Finally, it interrogates their capacity to diffuse these tools through the complex system of climate governance. The combination of policy instrument studies and complexity approaches thus provides a novel analysis of the innovation role of TMNs as an alternative solution to the current managing of climate issues.

2. The role of TMNs in climate governance

The rise of TMNs on the global arena has been studied mainly through the lens of multilevel governance, by analysing the increasing diversity of actors linked by horizontal and non-hierarchical relations and the overlapping of political levels (Betsill & Bulkeley, 2006; Gordon, 2013; Gustavsson, Elander, & Lundmark, 2009; Selin & VanDeveer, 2009). Subnational actors, among which TMNs, participate to shaping multilevel governance by influencing prominent entities. They also reveal the meddling of levels and competencies and the confusion of formerly distinct political spheres (Bulkeley et al., 2003), as they connect local actors to public, private, local and transnational partners, they differ from both international and local actors (Lee, 2013). Network governance has been another fruitful concept to account for the emergence of TMNs: thanks to their ability to connect distinct resources in a stable manner, TMNs may facilitate the successful political engagement of cities (James & Verrest, 2015; Juhola & Westerhoff, 2011).

The scholars focusing on the functions of TMNs have underlined their role in facilitating local climate action (Hakelberg, 2014; Reckien, Flacke, Olazabal, & Heidrich, 2015). They have also shown how TMNs provide cities with financial and political resources but also information and knowledge (Betsill & Bulkeley, 2004). Other studies have emphasized the way in which they promote the technical and normative innovations of cities (Toly, 2008). However, TMNs have effects beyond those on cities as they themselves produce novelty. By entering a political space dominated by states and claim they must participate in the governance of climate change, they question the norms regarding who governs and how as well as the classical distinction between the national and the international (Gordon, 2013). TMNs further blur the separation between public and private actors as they collaborate with both. Combining institutional and market-based elements to elaborate and implement actions, they generate a new system of governance from the middle (Román, 2010). But what is exactly the nature of the change they are offering? Can it have a significant impact on the way we manage climate issues? Regarding their effects on global climate governance, some question the ability of TMNs to be innovative and claim that instead of countering the stasis of states, they might be creating new lock-ins (Acuto & Rayner, 2016). Similarly, some scholars interrogate their effects on climate change itself (Bansard, Widerberg, & Pattberg, 2016; Hoffmann, 2011). TMNs would not be able to change the behaviour of their less active members and would remain “*networks of pioneers for pioneers*” (Kern & Bulkeley, 2009, p. 329).

We therefore have two different tasks. First, we must investigate more thoroughly what TMNs create. In which way are they innovating? Second, we must understand if this innovation may have an impact on the complex system of global climate governance and, if

so, how. In this sense, studying the interactions of TMNs is fundamental. The review of the literature suggests that there is a paucity of research on the interactions of TMNs (Busch, 2015; Keiner & Kim, 2007). The lens of complexity helps us focus on this aspect of the question as it stresses the interdependence of the distinct elements of the system and the nonlinear effect of the action of one of them on the others. The following section will start filling these gaps by studying the governance instruments used by TMNs to steer their members.

3. The use of innovative governance instruments

It seems that the governance instruments used by states and intergovernmental organizations (IGOs) on the one hand, and the ones used by TMNs on the other hand, greatly differ. As the former have been applied ever since climate governance emerged, they can be considered traditional, whereas the latter are innovative.

Traditional climate governance instruments are mainly regulatory and economic. The UNFCCC, the Kyoto Protocol and the Paris Agreement are, up to this date, the three most significant regulatory instruments states and IGOs have produced. They stand for what has been called a “global deal”, as an international legal treaty that would show a strong general commitment toward climate action (Falkner, Hannes, & Vogler, 2010). Christopher Hood classifies instruments according to the resource they are based on, namely, authority, treasure, nodality and organization (1986). Using this typology, we see that authority has been greatly used for the elaboration of these instruments. Other international mechanisms lead to the creation of economic instruments, hence using treasure. The 2001 Marrakesh Accords are, to that matter, an interesting achievement, as they offer concrete elements for climate change financing, through an increase of the funding of the Global Environmental Facility and the creation of three new funds, the Least Developed Countries Fund, the Special Climate Change Fund and the Adaptation Fund.

By contrast, TMNs mostly steer their members using instruments based on nodality and organization. *100 Resilient Cities* (100RC), a central TMN focusing on resilience issues, has implemented the position of Chief Resilience Officer in every city that belongs to its network. The funding of the CRO position and their team for at least two years first appears as a traditional tool as it mainly uses treasure. However, the funding is rather low and only lasts two years, even though the TMN tries to implement this position in the long run. Therefore, the CRO instrument is rather based on organization, attempting to create a change using cities’ skills and capacities and facilitating this change through provisional funding. Other governance instruments used by this TMN use resources that are even more neglected by states. The Platform of Partners, through which city members can connect to a variety of

mainly private actors who help them implement their Resilience Strategy, uses nodal resources. It also fills a need of cities by enabling them to create strategic connections with actors they might not be able to attract on their own. As Román has already shown in the case of the C40, procurement tools are popular instruments among TMNs (2010). They match Lascoumes and Le Galès's notion of new tools that offer less interventionist ways to steer a population (2004, p. 362). All the instruments used by 100RC indeed intend to regulate and mobilize its members in a soft and/or indirect way; they rarely provide a direct intervention. In that sense, they contrast with the tools used by states and IGOs which directly target their members, thus spreading a traditional vision of authority. But can these instruments spread in global climate governance?

4. The potential of diffusion through a well-thought networking strategy

Networking is a fundamental aspect of TMNs' activities. This seems tautological as, being networks of cities, a dense networking activity is to be expected. However, a preliminary observation reveals that several TMNs have a sophisticated strategy that goes beyond selecting cities and connecting them. This is key to their capacity to influence other actors and diffuse their governance instruments. More specifically, TMNs seem to have gained influence over the years through a strategy based on centrality and heterogeneity. Here again, the example of 100RC proves to be useful. In only four years, it has managed to become central thanks to its operation at distinct levels. Inside the network, it coordinates members and their strategy partners at the local level. Outside of it, it strategically creates connections to big and smaller actors of resilience and/or climate action and/or other related field such as sustainable development. These relations can be strong and imply some sort of collaboration or weaker and involve only some information sharing. For instance, the *Rockefeller Foundation* acts as a founding partner of 100RC; their link is thus quite strong. By contrast, it also has links to less well-known private firms with whom interactions are scarcer. Through distinct means, the TMN shares its ideas and practices with a vast variety of actors. Therefore, this kind of networking strategy can facilitate a broader diffusion of ideas. Furthermore, it seems to be in keeping with Granovetter's argument that novelty in a network most often comes from the nodes that are most central and have relations to marginal nodes, therefore enabling more heterogeneity in the ideas diffused (1973). The networking strategy of TMNs may thus not only help them diffuse their innovative instruments, but also facilitate the emergence of these tools. Thanks to its position among TMNs and in the complex system of global climate governance, 100RC may be able to impact the latter by diffusing its innovative governance instruments. Finally, the interactions between the various TMNs matter and must therefore be studied collectively. They indeed enable us to observe the self-

organization of the system, and the collective efforts of TMNs to facilitate the rise and diffusion of new instruments. The recent creation of the *Global Covenant of Mayors*, an alliance of the *European Covenant of Mayors* and the *Global Compact of Mayors*, seems to be an evidence of it.

5. Conclusion

The governance instruments used by TMNs to steer their members toward climate action differ from those used by states. This may be promising for global climate governance, which so far has not been able to implement efficient solutions. However, we must question the possibility of a transformative change coming from TMNs: can these recent actors diffuse their ideas and practices in a non-linear way to change a path-dependent system? Paying attention to the interactions of the TMNs enables us to better hypothesize on the effects their innovative instruments may have. Thanks to its centrality and the heterogeneity of its relations to other actors, 100RC may be able to promote its governance instruments outside the TMNs network, in the complex system of global climate governance. The partnerships with both traditional and new actors may facilitate the diffusion of 100RC's distinctive practices. Even if the same tools are not spread in the system, the indirect regulatory vision they embody may.

To confirm our findings and test our subsequent hypotheses, other studies are needed. In this regard, a following contribution should proceed to a network analysis of the TMNs subsystem to test the relation between centrality and heterogeneity and innovation. Observing more thoroughly the diffusion of innovation is also a crucial task as it will enable us to assess the transformative capacity of TMNs.

Finally, a few words must be said concerning the prospects of the rise of TMNs in global climate governance. The diffusion of innovative governance instruments, facilitated by the networking strategy of 100RC, is already starting. The creation of a position of State Resilience Officer of Oregon, at least partly based on the position of CRO, is an evidence of it. If other TMNs also display innovative tools, there might be a significant aggregated effect on global climate governance. Collective efforts, such as the *Global Covenant of Mayors*, should be studied as well. The way we currently govern climate may become more indirect, relying less on authority and more on information and organization. Moreover, TMNs connect to distinct types of actors and this way blur the already threatened distinction between the public and the private spheres and the other traditional separation between the local, the national and the global level. States are still steeped with these limits and international governance has been unwilling to integrate sub-state and non-state actors to negotiations. This may also explain why it experiences more difficulties in implementing

innovation. Signs of a more bottom-up approach and of an opening of international governance are rising, as the Paris Agreement shows. This may lead to a hybrid system more apt to consider the complexity of climate change and therefore offer more efficient solutions. The following years will tell us if this trend keeps up and confirms our hypotheses. In the meantime, we can only hope scholarly interest in innovation and complexity will maintain so that we can better understand this phenomenon and take part in the remodelling of global climate governance.

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