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# The climate regime after Paris: an opportunity for regional leadership beyond the State?

Ana Dias<sup>1,2✉</sup> and Sandrina Antunes<sup>1</sup>

In the fast-changing landscape of global climate governance, a more polycentric climate regime was recognized with the Paris Agreement. Given the possibility for non-state actors to become agents of change, this paper observes that dynamics of climate leadership are also being defined by regional governments in federal or decentralized systems. Regional governments do so by actively engaging in Paris' climate efforts by using their self-governing capacities to set their own internal and external climate strategies that may anticipate, bypass, or surpass state action. Although studies have explored leadership dynamics in polycentric structures, the field of climate leadership lacks conceptual and empirical research on regional climate action. Relying on the literature of polycentric governance and climate leadership, our paper (1) articulates the research gap on the phenomenon of regional climate leadership beyond the state and (2) suggests a revised perspective on climate leadership applied to federal or decentralized contexts.

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## INTRODUCTION

Current patterns of global climate governance reflect dispersed initiatives by a variety of actors. Recent developments within the international climate regime acknowledging the role of non-state actors confirm greater polycentricity; this has been described by Ostrom<sup>1</sup> as the emergence of a polycentric environment. Although literature in the field has reflected this trend<sup>2–4</sup>, no studies have addressed the role of regional climate leadership in a polycentric context.

Whereas the United Nations Framework Convention on Climate Change (UNFCCC) sets out the broad principles and norms of the climate regime, specific rules and procedures are defined in its foundational agreements, namely the Kyoto Protocol (1997), later updated by the Paris Agreement (2015). The deterioration of the monocentric (i.e., action by the state as a unitary power) arrangements proposed in Kyoto led the Paris Agreement to acknowledge a more polycentric (i.e., patterns of coordination driven by state and non-state action) climate regime by recognizing the agency of self-organized units (supranational, regional, local, public, and private). The treaty reflects a broader understanding of the challenge posed by climate change by noticing that action must take place across local, regional, national, and international dimensions.

Noticing a climate regime transition<sup>4</sup>, we argue that a polycentric context represents a possibility for regional governments (The term 'region' refers to the *territorial unit immediately below the sovereign state*<sup>5</sup>, entities *situated between the local and national levels with a capacity for authoritative decision*<sup>6</sup>) within federal and decentralized institutional settings to be recognized as climate leaders beyond the state (i.e., functional autonomy in climate action) concerning climate mitigation and adaptation efforts (Mitigation efforts address the causes of climate change aiming to reduce greenhouse gas (GHG) emissions or remove the current carbon dioxide in the atmosphere. Adaptation measures, on the other hand, consider the effects of climate change through adjustments to infrastructure and practices) set by Paris<sup>7</sup>. First, we consider regional governments as actors in federal and

decentralized political contexts with political-administrative, bio-physical, and socio-economic structures<sup>8</sup> capable of becoming 'agents of change'<sup>3</sup>, that is, to contribute to climate mitigation and adaptation efforts following Paris' standards. Second, we regard regional climate leaders as regional governments who can devise their own mitigation and adaptation climate action plans through their self-governing capacities, autonomously from the state, being able to anticipate (i.e., move first), bypass (i.e., set contrary standards), or surpass (i.e., set higher ambitions) the parent state (Anticipation in relation to the central state is internally expressed by filling climate policy voids and externally by moving first in external climate cooperation; bypassing the central state describes a contrary position adopted by governments in terms of internal climate standards and external climate cooperation<sup>9</sup>). This self-governing climate strategy can be fulfilled in two distinctive ways: *a*) by setting their own climate policies at the domestic level and *b*) by engaging in international cooperation as governance actors via (para)diplomacy activities (bilateral/ multilateral agreements and/or networks).

The latest literature considers the importance of alternative actors who are not states in climate governance while also recognizing the space for these agents to express climate leadership<sup>3,4,10,11</sup>. However, as an evolving domain, there is a lack of a conceptual framework that identifies and conceptualizes climate leadership by regional governments in both theoretical (i.e., to explain) and empirical (i.e., how it is expressed) terms. As such, this paper is guided by two objectives: (1) it articulates a literature gap regarding climate agency by regional governments in federal and decentralized systems while calling for an analytical effort to frame the phenomenon of regional climate leadership, and (2) it offers a descriptive typology (descriptive typologies are used to characterize cases where each cell corresponds to specific types or instances of a broader concept, in opposition to explanatory outcomes.)<sup>12</sup> on regional climate leadership before presenting some concluding remarks.

<sup>1</sup>CICP Research Center in Political Science, Braga, Portugal. <sup>2</sup>Present address: CICP Research Center in Political Science, Braga, Portugal. ✉email: id9204@uminho.pt

**Table 1.** Ambitions and Positions of Environmental Actors.

External “face”	Internal “face”	
	Low internal environmental ambitions	High internal environmental ambitions
Low external environmental ambitions	(a) Laggard	(b) Pioneer
High external environmental ambitions	(c) Symbolic leader	(d) Pusher

**Source:** Lieferink and Wurzel, 2017<sup>3</sup>.

## LEADERSHIP IN POLYCENTRIC CLIMATE GOVERNANCE

Perceiving an emerging reality in climate governance as part of broader shifts in global politics<sup>13</sup>, this perspective relies on the existing literature on polycentricity and climate leadership to identify and understand a new phenomenon: regional climate leadership.

As a reflection of larger trends<sup>14</sup>, the literature has witnessed a shift from state-centered classical approaches<sup>15</sup>. Elinor Ostrom<sup>1</sup> suggested the revival of the term “polycentricity” as an analytical approach to understanding the structure of climate governance and how efforts can be improved in this domain to solve action problems<sup>11</sup>. Polycentricity considers overlapping jurisdictions of collective action between different action units—private and public—located at multiple scales—supra-national, national, and sub-national—in the absence of a central authority to provide global public goods (global public goods stand for universal, non-rival and non-exclusive (consumed and benefited by all stakeholders in the system) resources that globally produced. In the absence of an overreaching global authority, no actor in the system may provide it alone.)<sup>1</sup>. For this perspective, polycentricity regards self-organizing dynamics<sup>10</sup> of functional action by governance actors<sup>16</sup> who interact beyond inter-state regimes in the pursuit of a common goal<sup>17</sup>, thus leading to several decision-making centers<sup>18</sup>.

Similar literature perspectives have been presented, namely federalism and multilevel governance (MLG)<sup>6,19</sup>. Although polycentricism shares presuppositions with MLG (i.e., multiple centers of authority and levels of governance), these are not identical. Specifically, whereas MLG sub-types (MLG I and II) assume a stronger role for governmental actors (namely national and supranational actors) and emphasize the mutual dependency of supranational and subnational actors, polycentricity favors societal ‘self-coordination’ by all sorts of actors. From a polycentric perspective, the ‘self-coordination’ of multiple actors and the ‘absence of a governmental central authority’ are paramount for the successful functioning of global climate governance. Hence, a more subtle governance arrangement that transcends the hierarchical equivalence of spatially defined jurisdictions that are found in MLG approaches is required<sup>20</sup>.

Given Paris’ encouragement of new forms of governing (Examples include annual events and technical expert meetings, the enrollment of non-state and subnational actors in emission commitments, and the introduction of Nationally Determined Contributions (NDCs) by states.), the UNFCCC is perceived by recent scholarship as increasingly reflecting polycentric governance. Notably, Lieferink and Wurzel<sup>3</sup> argue that polycentric conditions offer significant potential for climate leadership opportunities to an extensive universe of actors by emphasizing the relevance of polycentric lenses to comprehend how and for what purposes different actors employ leadership. In clarifying different types of leadership (leaders, pioneers, laggards, and followers) according to their internal and external environmental ambitions, Lieferink and Wurzel<sup>3</sup> suggest a two-level matrix to qualify states’ environmental policies and therefore identify leadership (see Table 1 below).

These scholars distinguish actors according to their internal “face”—the environmental ambitions of their domestic policies—and their external “face”—the environmental ambitions displayed in their foreign policy: (a) laggards have low internal and external policy intentions; (b) pioneers are first-movers regarding their domestic policies but have no direct intention to influence followers in the international dimension, although they may do so unintentionally by setting an example; (c) symbolic leaders are demonstrative in the international sphere, but are not consequential in their domestic policies; (d) pushers take the lead domestically by setting the highest climate standards regardless of conditions and intentionally lobby other actors to follow their example. Within this conceptual reference, the phenomenon of climate leadership includes the behavior of pushers and pioneers who are either first movers or who set the highest policy ambitions.

Foundations set by Lieferink and Wurzel<sup>3</sup> are central by acknowledging the internal and external angles of the phenomenon. However, when applying it to regional leadership in climate governance, an important political dimension is missing on how regional authorities in federal and decentralized political systems use their legislative resources (in climate policy and international activities) to pursue climate leadership. As such, we articulate a gap concerning the autonomy of action in climate action of regional governments *vis-à-vis* the state in meeting Paris by looking at the internal and external spheres and its operationalization.

## REGIONAL CLIMATE LEADERSHIP: A REVIEWED TYPOLOGY

According to Lieferink and Wurzel<sup>3</sup>, “Agents of Change” are defined in three different moments: (1) the adoption of mitigation and adaptation policies to achieve goals; (2) the intentional or unintentional attraction of followers to pursue the same ambitions via internal and/or external ambitions; (3) the positive change in climate behavioral patterns of other actors.

Concerning regional authorities, we observe the need for a deeper framework of analysis as the concept’s application requires attention to their possible functional autonomy of action (i.e., self-governance) in climate policy and external presence. As noted earlier, regional governments within federal and decentralized settings operate beyond the state when using their functional autonomy (i.e., self-governing capacities) to set their own internal and external climate strategies, compliant with Paris, being able to anticipate, bypass, or surpass state action in climate mitigation and adaptation efforts<sup>21</sup>, yet without subverting their territorial and constitutional limitations. By transposing the original concept into the realm of regional climate leadership, this work considers a revised analytical framework.

We first classify climate actors according to the matrix provided by Lieferink and Wurzel<sup>3</sup>, which allows the identification of climate leadership: (1) it establishes that climate leadership is performed in a two-dimensional structure of external and/or internal climate policies that influence global climate governance, and (2) it contends that pioneers and pushers are the ultimate expressions of leadership dynamics. To these arguments, we add

**Table 2.** Regional climate leadership.

External “face”	Internal “face”	
	Low internal climate self-governance	High internal climate self-governance
Low external climate self-governance	(a) Laggard	(b) Pioneer
High external climate self-governance	(c) Symbolic leader	(d) Pusher

**Source:** Author’s own based on Lieferink and Wurzel, 2017<sup>3</sup>.

that regional leadership in climate governance expresses self-governance (i.e., functional autonomy to set internal climate policies and external climate cooperation) of regional governments in climate governance. Qualifying the internal and external performance of self-governance *vis-à-vis* the state in climate policy allows us to identify regional leaders in global climate governance, as set out in Table 2.

Table 2 differentiates four types of regional climate leadership positions:

- Low internal and low external climate self-governance does not express regional climate leadership. Regional governments in federal or decentralized states that do not use their functional autonomy to internally implement climate plans and/or to stimulate external climate cooperation through climate (para)diplomacy are classified as *laggards*.
- High internal and low external self-governance defines a *pioneer*. Pioneers limit their legal resources of functional autonomy to prioritize internal mitigation and adaptation climate regulations, as indicated by Paris, while not privileging external cooperation. Nonetheless, they may internally anticipate, bypass, or surpass national climate ambitions.
- Low internal and high external climate self-governance characterizes a *symbolic leader*. These actors limit their legal resources of functional autonomy to external cooperation in mitigation and adaptation efforts as set by Paris. In the international sphere, they have the chance to anticipate, bypass, or surpass national strategies by deploying climate (para)diplomacy activities.
- A combination of high internal and high external self-governance identifies a *pusher*. Pushers use their legal functional autonomy both internally and externally to establish their climate programs and pursue international climate cooperation through climate (para)diplomacy to meet Paris’ standards. Furthermore, anticipation, bypassing, or surpassing the state is a possibility in both dimensions.

Overall, pioneers and pushers are the expressions of regional climate leadership. Empirical signs suggest that the phenomenon is already occurring. Even before the Paris Agreement, certain federated states had been acting as governance actors within a self-organizing system. As the global climate regime became more polycentric, regional actors such as Quebec or California have been regarded as prominent cases in internal and external climate action<sup>22,23</sup>. Regardless of not being signatory parties, both cases have implemented policies supporting the premises of Articles 4.1, 4.2., 4.4., 4.9, and 4.19 from the treaty concerning emission reductions and reporting while also enrolling in subnational climate diplomacy and transnational networks such as Under2 Coalition or Regions4. Other regional governments in decentralized states such as the Basque Country, Catalonia, Wales, and Scotland have also led climate change policy following the Paris Agreement. Similarly, they have set climate targets irrespectively of what was defined by the corresponding state while following the ambition of achieving net-zero emissions by 2050<sup>24</sup>.

## DISCUSSION

Our perspective notes that climate leadership in polycentric policy contexts has overlooked regional governments in the post-Paris era. Despite significant conceptual developments on climate leadership and how polycentric governance offers significant opportunities, a reframing of the model is necessary to study regional action considering their legal resources of self-governance. With a more polycentric climate regime (UNFCCC) via Paris, an opportunity has emerged for a set of actors to become agents of change in global climate governance, moving beyond MLG ‘straight jacket’. Essentially, our discussion articulates a gap regarding regional governments from federal or decentralized systems while suggesting a revised model of analysis applied to regional climate leadership.

By highlighting this, we contend that regional governments with the necessary legislative capacities of functional autonomy may position themselves as agents of change in the climate regime inaugurated by Paris. Ultimately, regional climate leadership expresses the ability of regional governments in federal and decentralized systems to use their competencies to perform self-governance beyond state action in their internal and/or external pursuit of climate action aligned with Paris’ standards.

To conclude, our perspective raises awareness of a research gap while establishing a foundation for a wide set of future research options, both theoretical and empirical. Significant developments can be made via empirical case-study analyses of regional climate leadership, not only to obtain a more profound understanding of the framework but also to identify additional specificities deriving from the individual nature of each regional government. In sum, a greater understanding of regional climate leadership under polycentric conditions is needed.

## DATA AVAILABILITY

The data supporting this paper are available from the corresponding authors.

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## AUTHOR CONTRIBUTIONS

A.D. has made a full contribution to the introduction and the first topic. S.A. has made a full contribution to the Discussion topic. The reviewed model results from the contribution of both authors.

## COMPETING INTERESTS

The authors declare no competing interests.

## ADDITIONAL INFORMATION

**Correspondence** and requests for materials should be addressed to Ana Dias.

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