Editorial: Climate change law and federalism. A comparative review from the perspective of the EU decentralised member states

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Climate change and the law 1.

The interconnection between climate and the three legal formants – namely, legislation, case law, and legal doctrine - is widely recognised, as evidenced by the vast literature on climate change law, the multiple international, regional, national and subnational regulations, and the rising number of judgments that fall under climate change litigation. Although in the legal narrative, climate law or climate change law is often referred to somewhat imprecisely, some scholars have pointed out that "the climate" is not an object of regulation, but - insofar as it plays a truly ecosystemic role in regulating the environment and nature in the broad sense – it is properly a de facto source of law.2 In fact, the true object of legal regulation, as it results from Art. 1.2 of the UNFCCC, is "climate change", understood as the specific

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^{1.} Just among the most recent contributions, see Reins, Research Handbook on Climate Change Mitigation Law.

^{2.} Carducci, Cambiamento climatico, 54.

causal interaction which is at the root of the change in the composition of the atmosphere caused directly or indirectly by human activity. According to this scholarship, it should also be noted that the normative structure of the climate obligation, as laid out in the UNFCCC and the Paris Agreement, is three-dimensional, encompassing the State's climate system on a spatial basis (a given physical space that generates emissions), the timeframe, and the actors involved.³

Regarding time, on one side, the obligation affects both present and future generations; on the other, it highlights the urgent need for immediate action to mitigate the effects of climate change in a situation of emergency.⁴ Indeed, it is worth recalling that in March 2023, the observatory of the US National Oceanic and Atmospheric Administration (NOAA) recorded a peak atmospheric carbon dioxide (CO₂) concentration of 421 parts per million (ppm).⁵ This milestone represents the highest point on the "Keeling curve" of CO₂ concentration, indicating an acceleration towards doubling the pre-industrial levels. If the curve remains unaltered, forecasts based on current trends suggest that the pre-industrial atmospheric CO2 concentration could double by 2060, leading to an increase in the planet's temperature of up to 4°C.6 This phenomenon describes the concept of climate reaching a critical point where rapid changes ensue, beyond human intervention, which is commonly referred to as a "tipping point". The Intergovernmental Panel on Climate Change (IPCC) first introduced this terminology in the Fourth Assessment Report in 2007. Since then, scholars have specified and expanded the definition of tipping points, referring to nine large-scale components⁸ of the Earth System that control the climate and have either exceeded or are on the verge

^{3.} Carducci, "Libertà 'climaticamente' condizionate e governo del tempo nella sentenza del BVerfG del 24 marzo 2021".

^{4.} Stacey, The Public Law Paradoxes of Climate Emergency Declarations, 291 ff.

^{5.} Data tracking can be done on the NOAA Earth System Research Laboratories (ESRL) website (https://www.esrl.noaa.gov/gmd/ccgg/trends/mlo.html).

^{6.} Voosen, "After 40 years, researchers finally see Earth's climate destiny more clearly".

^{7.} Solomon et al., Climate Change 2007.

^{8.} The components are: 1) Arctic sea ice; 2) the Greenland ice sheet; 3) the ice of West Antarctica; 4) the thermohaline circulation of the Atlantic; 5) the El Niño southern oscillation; 6) the Indian summer monsoon; 7) the Sahara/Sahel and West African monsoon; 8) the Amazon jungle; 9) the boreal forest.

of surpassing their critical threshold due to anthropogenic pressures. This data is critical in shaping climate policies and legislation according to the "reserve of science" clause of Article 4.1 of the Paris Agreement, as mitigation measures must be implemented to prevent reaching critical thresholds, while adaptive capacity will depend on whether qualitative changes within the system can be tolerated.

When it comes to the "space" dimension, the connection between climate change and the law is significant and complex. Fossil fuels have transferred human colonisation to the atmosphere, spreading the risks and the costs generated in certain territories on a global scale to all the world's population through the climate system, first and foremost the most vulnerable part of the global society. However – connecting "space" with the "actors" dimension – within the framework of the responsibilities assumed by States at the international and European levels, we are particularly interested in focusing on the relations between governmental entities and their territories as regulated in the framework of their own legal systems. In other words, this leads us to place the "climate change crisis" in the constitutional framework.

2. Climate change law as a constitutional object

Climate change represents a paramount concern in contemporary society, characterised by profound social, economic, and environmental ramifications. It manifests as a multifaceted phenomenon exerting its influence across different dimensions of human existence encompassing health, food security, energy, and migration. The gravity of its impact has prompted the formulation of numerous legal frameworks dedicated to tackling climate change. Nevertheless, the efficacy of these frameworks is contingent upon the legal systems responsible for their implementation. Consequently, it becomes decisive to inquire the following: do constitutions possess the requisite capacity to effectively confront the challenges posed by climate change?

Constitutional law plays a crucial role in shaping legal systems and governing the relationships between the State, citizens, and the environment. Climate

^{9.} Lenton et al., Tipping elements in the Earth's climate system, 1786 ff.

^{10.} Borràs, Colonizing the atmosphere, 105 ff.

change is increasingly being recognised as a "constitutional object", meaning that it is an issue that falls within the scope of constitutional law (national and global constitutionalism).¹¹ This recognition is based on the idea that climate change has significant constitutional implications,¹² including impacts on the fundamental rights and freedoms of individuals, the distribution of power between state and society (horizontal subsidiarity), and the very structure and organisation of governments (federalism).

One of the key ways in which climate change intersects with constitutional law is through the protection of fundamental rights. Climate change has the potential to impact a wide range of human rights, including the rights to life, health, food, water, and housing. These impacts are felt most acutely by vulnerable populations, including indigenous communities, children, and the poor. Constitutional law can play a critical role in protecting these rights by ensuring that governments take action to address climate change and protect vulnerable populations from its impacts.¹³

Climate change raises important questions about the distribution of power between the state and society. Addressing climate change requires significant changes in economic and social systems, which can create tensions between different interest groups. Constitutional law can provide the framework for resolving these tensions by establishing the rules and principles for decision-making and ensuring that all groups have a voice in the process.

Finally, climate change also has significant implications for the structure and organisation of governments. Addressing climate change requires significant coordination and cooperation between different levels of government, as well as between the public and private sectors. Public law can provide the legal framework for these institutional relationships by establishing the roles and responsibilities of different levels of government and ensuring that they

^{11.} See: Jaria-Manzano and Borràs, Research Handbook on Global Climate Constitutionalism; Jaria-Manzano, La constitución del Antropoceno.

^{12.} See the Germany's Federal Constitutional Court ruling (case Neubauer, et al. v. Germany), 29 April 2021. Goldmann, "The Climate Action Judgment as a Postcolonial Turn in Constitutional Law?".

^{13.} On the impossibility of escaping from the framework of rights in the legal framing of the environmental crisis, see Jaria-Manzano, *La insolación de Miréio*, 449 ff.

work together to address climate change. This brings us to the link between climate change law and federalism.

3. Climate change law and federalism

The legal dimension of climate governance architecture is also receiving growing attention from scholars. This should come as no surprise, given that, as a matter of fact, several of the largest emitters globally consist of federations or have implemented decentralised forms of governance.¹⁴

Federalism has the potential to facilitate the implementation of effective climate change mitigation policies, contingent upon the presence of specific criteria within the relevant constitutional, administrative, and environmental legal frameworks. Such criteria encompass institutional flexibility, constitutional provisions designed to circumvent impasses among the various entities of the federation, the existence of sturdy federal powers, and a degree of subnational autonomy that permits regulatory experimentation and innovation.¹⁵

Some scholars assert that federalism constitutes a governance system that furnishes decentralised and experimental pathways for the development and execution of climate policies by federated entities. The decentralisation and experimentation of climate policy formulation can manifest within a multi-level policy framework wherein federated entities are bestowed with the discretion to adapt and innovate in their implementation of climate policies or, alternatively, can act to supplement a vacuum resulting from federal inaction.¹⁶

Empowering federated or decentralised entities with increased autonomy over the development and implementation of climate policies facilitates the utilisation of their unique skills, knowledge, and resources to formulate climate solutions that are tailored to their specific economic, environmental, and social circumstances. The implementation of decentralised climate action

^{14.} Recently, see Fenna et al., Climate Governance and Federalism.

^{15.} Reich, Federalism and Mitigating Climate Change.

^{16.} Fenna et al., Climate Governance and Federalism, 328 ff.

also has the potential to increase the legitimacy and acceptance of climate policies among local populations, while federated entities can serve as experimental sites to test innovative solutions for addressing climate change. Nonetheless, scholars have cautioned that decentralised action may pose significant challenges in addressing a complex issue like climate change. An uncoordinated set of climate policies can generate inefficiencies that impede decarbonisation efforts for economic actors and sectors that operate across multiple federated entities and neglect the potential advantages of harmonised standards and carbon markets that can result from coordinated action.¹⁷

Considering the growing role of subnational governments in the field of climate policy and the emergence of multi-level processes and arrangements in the field of climate governance, this monographic issue of REAF aims at shedding new light on the relationship between decentralisation processes and governance of climate change in some European Union Member States.

With regard to the EU context, meeting the climate change challenge distinctly appears a crucial and compound task calling for multiple coordinated actions at the EU, national and local levels. As most EU Member States' national mitigation policies and measures have been implemented in response to both EU strategies and binding instruments, 18 the specific analysis of climate governance in different decentralised Member States may reveal how multi-level dynamics affect the climate governance ambitions of both the EU and its Member States.

4. Research questions and structure

To this end, understanding how decentralised states address the challenge of climate change requires consideration of national institutions, policies and politics, subnational initiatives and action, and the relation between the national government and subnational units in the design and implementation of

^{17.} Ibid.

^{18.} European Topic Centre on climate change mitigation and energy. 2019. *Overview of reported national policies and measures on climate change mitigation in Europe in 2019*. Available at: https://www.eionet.europa.eu/etcs/etc-cme/products/etc-cme-reports/etc-cme-report-5-2019-overview-of-reported-national-policies-and-measures-on-climate-change-mitigation-in-europe-in-2019.

climate policies. Against this backdrop, the contributions in this monographic issue aim to answer the following research questions: Whether and how the features and practices of decentralised jurisdictions shape climate policymaking? What are the opportunities and challenges and or barriers that decentralised jurisdictions offer for the development and implementation of climate policies? What conditions influence the pathways and outcomes of climate governance in these systems? Each contribution focuses on the national dimension, bridging the European climate governance approaches with the subnational authorities at the heart of this monographic issue.

In her contribution, Manuela Mora Ruiz draws a line between the decentralised Spanish model for governing climate change in place before the approval of National Act 7/2021 on Climate Change and Energy Transition and after that. She points out that this Act provides somewhat limited space for the participation of autonomous communities. The immediate consequence of this new legislation is that the Spanish model rests on the interplay between State basic legislation and autonomous community development legislation, leaving the State to define the basics, and conversely defining the autonomous communities' scope for legislative and administrative powers. In her opinion, the Act also reflects the most recent constitutional case law, which restricts the possibilities for the autonomous regions to establish their own climate neutrality targets. Although in a broader evaluation undertaken by the author, Act 7/2021 should be positively assessed, since it guarantees a certain autonomous space in the fight against climate change and in the transformation of the energy model, the implementation of the multi-level governance required for an effective strategy to combat climate change is achieved in the Act in a somewhat narrow way, as it is redirected to demands for coordination and cooperation between the State and the autonomous communities throughout the articles of the regulation. The author concludes by examining the climate laws enacted by pioneer autonomous communities, such as Catalonia, Andalusia, and the Balearic Islands, anticipating the National Climate Act, and those adopted within the framework of the national act by other autonomous communities, such as Navarre, Valencia, and the Canary Islands. Compared to the first group of regional laws, the latter pay greater attention to introducing regulatory measures of climate taxation. Also, they all incorporate a developed sanctioning regime and define regional and local administrations, in the sense of attributing them a qualified role in the adoption of mitigation and adaptation measures, by virtue of which it is possible to explicitly recognise their exemplary role.

In her article, Mariachiara Alberton, after a brief overview of the existing Italian institutional setting and of the policy and legislative framework in place, stresses the complexity of climate change policy integration in Italy. She points out that the problematic division of powers adopted after the 2001 constitutional reform and the lack of strong cooperative mechanisms that can include regional and local interests in the national decision-making process have funnelled all conflicts before the Constitutional Court, especially in sectors such as environment and energy, at the core of climate policy. By investigating how and to what extent the two autonomous provinces of Trento and Bolzano, considered in many ways the frontrunners of autonomy and laboratories of innovation in the Italian arena, address the challenges of climate change in areas where they exercise either exclusive or shared legislative powers, the author clarifies the reasons why the success of any climate policy at the subnational level depends mainly on the extent to which an authority is able to include climate-related objectives in its sectoral policies. She concludes by assessing the current role of subnational governments in the advancement of the fight against climate change in respect of the implementation of EU and national climate policies and in the adoption of tailor-made, climate-friendly initiatives and offers a synthesis of the most relevant obstacles and opportunities for vertical and horizontal integration of climate policy in Italy.

Moritz Reese moves to the case of Germany. He investigates the theoretical framework of adequate distribution of powers and which level of government is best suited to govern climate and energy issues before assessing the far-reaching EU powers and interventions which have a considerable impact not only on climate policy as such but also on the (further) distribution of tasks in related fields such as energy, transport, industry, etc. Then, he sketches the basic structures of the German federal system as an example of administrative federalism in which legislation is primarily the responsibility of the central government, while the *Länder* and local municipalities are in charge of executive and fiscal matters and, as part of this, have strong powers in terms of spatial planning and infrastructure development. He notes that the federal level has, so far, refrained from imposing regional targets and policy planning obligations on the *Länder*. However, recent experience shows, as the example of wind energy that he provides in the second part of his contribution, that the Länder do not tend to use their autonomy to promote decarbonisation, but rather to delay the necessary transformation processes. In the light of both the theoretical remarks on federalism and

in view of the failed German multi-level approaches to energy transition, the author concludes that federal climate governance must build not only on European and national objectives but also on regional and local climate targets and policy planning schemes as a means of both ensuring sufficient transformation efforts and preserving as much autonomy as possible for regional and local communities.

Maria Bertel describes the relevant features of Austria as a federal State, by providing an analysis of the distribution of powers between the national and subnational levels in key areas for climate change. The author emphasises that, even though federal constitutional law does not mention climate change or climate protection, the Austrian Constitution is a rather flexible chart that, in turn, easily allows amendments to the distribution of powers. Moreover, the constitutional legislature can temporarily change the distribution of powers and enact the so-called "competency coverage clauses" (Kompetenzdeckungsklauseln), that come at hand when regulating, for instance, energy laws. It is underlined how the tasks of climate change mitigation and adaptation may arise in different "cross-cutting" sectors or "complex issues" (Querschnittsmaterie) that cannot be assigned to either the federal or the *Länder* levels. This is reflected in "ordinary" or "simple" law, as different norms cover climate mitigation and climate change adaptation at the federal level as well as that of the *Länder*. Another peculiar aspect of Austrian federalism refers to the circumstance that the administrations of both the federal government and the *Länder* are not bound to the distribution of jurisdictional powers when acting by means of private law. This general feature allows *Länder* to take up a role as forerunners in the field of climate change, if politically wished, and to get active (by means of private law) also in areas where they are not competent to act.

In his contribution, Matteo Fermeglia underlines the rather unique case of Belgium within the context of the EU federal States. Despite the clear-cut and rigid allocation of powers provided by its constitutional framework that places Belgium fully within the definition of dual federalism, Belgium bears several important features of cooperative federalism specifically in the case of cross-cutting, inherently multi-level issues such as the protection of the environment and the fight against climate change.

The author appraises the main formal and informal intergovernmental cooperation mechanisms in place and sheds light on the prominent role played by

the EU in these dynamics. In fact, the "Europeanisation" of Belgian policies has been widely recognised as a key element fostering intergovernmental cooperation, in particular in the field of climate action. A third aspect of Belgian federalism, in addition to the dual and cooperative features, is summarised by the term "partocracy", as most political decisions are monopolised by the relevant political parties, reflecting the territorial fragmentation of the country. Such a system is exposed to inevitable tensions and failures when the federal government and regional governments are not led by the same coalition, which has repeatedly occurred since the 2004 elections. Political asymmetry between different levels of government leads to conflicting views on policy agendas and potentially diverging approaches and decisions which further hamper the decision-making process also with regard to climate policies. The author takes stock of several examples to provide a more general assessment of the role of decentralisation in the context of Belgium's climate governance. In his opinion, the Belgian case provides manifold elements that testify to the potential drawbacks of a truly decentralised approach to achieve ambitious climate policy and effective implementation.

Interestingly, all the decentralised Member States' climate policies depicted in the following contributions, despite their peculiarities, are triggered by EU requirements and initiatives with some examples of "climate activism" adopted only at the subnational/constituent unit level.

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