

Conclusion: Exploring a constitution for the climate

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I. CLIMATE, ANTHROPOCENE, CONSTITUTION

Through the different approaches developed in the chapters written for this book, it seems clear that the Anthropocene narrative demands new perspectives in conceiving law. Anthropogenic climate transformation is indeed demanding a reconstruction of the different fields of knowledge, affecting the hegemonic conceptions of law as well.¹ The Anthropocene implies a paradigm shift according with a scenario where society defines its own material support at a global scale. This comprehensive change raises profound interrogations about the social structures colonising the biosphere, demanding fundamental changes in legal thought, a transformation in the creation of principles and the production of rules, affecting even the definition of legal actors.

Law has, as a form of knowledge and praxis, has been a decisive contributor to the configuration and deployment of the global social metabolism in the context of the capitalist world-economy. Consequently, it has also contributed to set the conditions for the anthropic transformation of climate, designing the normative framework where massive consumption of natural resources and particularly fossil fuels has been deployed for centuries. To understand how law has contributed to generate the transition to Anthropocene is crucial in order to explore the changes required to confront the global climate crisis.

Western modern law has been a cultural artefact providing institutions and regulations enabling the expansion of the capitalist world-system and, hence, the generation of a global social metabolism. This process of global anthropic transformation of the Earth System have raised sustainability issues in an obvious way. Moreover, it has contributed to redefine justice concerns, according with the awareness of the consequences of the

¹ See Will Steffen, 'A Truly Complex and Diabolical Policy Problem' in John S. Dryzek, Richard B. Noorgard, David Schlosberg (eds), *The Oxford Handbook of Climate Change and Society* (OUP, 2011) 21.

anthropic transformation of Earth System regarding the distribution of welfare and the recognition of pluralism.

The contribution of Alf Hornborg presents summarily how capitalist institutions and culture have promoted patterns of massive consumption of natural resources, defining the split between North and South; or better, centre and periphery in the capitalist world-system. The evolution of the capitalist global economy has created a global social metabolism, allowing human species to transform the Earth System. Hornborg analyses the cultural foundations of this process, as well as its effects. The anthropic transformation of the biophysical basis of human species impacts in the way how society interact with the biosphere, affecting social practices and cultural constructs, as well as the form in which knowledge is conceived and applied. It seems obvious that law is affected in a profound way in this scenario, despite foreseeable resistances of legal actors, attached to a conservative understanding of law.

Hence, Hornborg underlines one of the fundamental threads of this book, i.e. the double dimension of the Anthropocene as natural and social crisis, which should to be confronted within a holistic perspective, based in the fundamental concepts of sustainability and justice. This approach signals how law should evolve to adjust itself to the requirements of the transition to the new paradigm. The cultural foundations of the capitalist world-system, based in the artificial creation of value through money, are embedded in constitutional culture. The individualist conception of rights pervades through all the legal system, establishing a utopian model of social reproduction and favouring massive consumption of resources. Hence, the fundamental constitutional concepts should to be re-thought to confront the transition to the Anthropocene, allowing an appropriate reaction to the crucial challenges implied by climate change. A critical approach to law is required to advance in a reconstruction of legal thought to adapt it to the civilizational changes that society should to undergo in this scenario.

In his contribution, Hornborg points out that “we shall have to acknowledge that the quintessential artefact of modernity—the meme of general-purpose money—embodies an intrinsic logic that inexorably generates widening global gaps and environmental destruction. This logic is inherent in conventional money itself.” For this reason, structural changes are needed, particularly in the institutional arena, with an impact in the very conception of law. It is thus necessary to discuss the constitutional foundations of law.

Hence, the starting point of the book is the need of a global constitutionalism for the Anthropocene, with the awareness that the accumulation of power, energy and goods by some groups of global society should to be addressed through law. Within this framework, the promotion of adaptation and mitigation of climate change according to a sustainable and equitable logic is developed into a constitutional issue. This requires an interpretation of the social factors contributing to the anthropic transformation of the Earth System, considering their implications in terms of sustainability and justice. Inspired by these fundamental concepts, new legal principles and strategies, new forms and conceptions of law should to be explored.

The way to build a constitutional understanding of and a constitutional response to climate crisis is explored through a critique of current ways of social reproduction and hegemonic conceptions of law. Accordingly, following the Hornborg contribution, I have developed this critique of the capitalist world-economy as a main factor of anthropic modification of climate, beginning with the link between the Anthropocene narrative and the development of a global social metabolism. Connecting with Hornborg's framing of the question, I have underlined the importance of the mentioned concepts of sustainability and justice as patterns of interpretation of the global crisis from a legal point of view, and developed consequently three fundamental principles—responsibility, precaution and cooperation—to advance into a constitutional framing of the climate crisis.

My chapter is, therefore, addressed to capture the direction in which law should evolve to adapt itself to Anthropocene. I have focussed on two fundamental features of hegemonic constitutional culture: sovereignty and rights. Both concepts are responding to a secularization of Christian conceptions and have deep biblical roots. Sovereignty is related with the concept of *pouvoir constituant*, conceived as an almighty creator of the constitution. This is related with the idea of God. In fact, the hegemonic conception of the law as a will is based in the Judaeo-Christian idea of the word of God transformed into rule of behaviour.²

Any constitutional conception for the Anthropocene should to be constructed detached from the idea of sovereignty. A horizontal rather than hierarchic ideal of constitution should to be developed, based primarily in pluralism, intertextuality and dialogue. This seems to be the way to build a global constitutional narrative, responding to the pluralistic,

² See Peter Häberle, *Europäische Verfassungslehre* (6th. edn, Nomos, 2011) 205.

evolving and opened development of global society. Moreover, this approach corresponds to the complexity of the Earth System.

Hence, it is not possible, even not desirable, the construction of a global *pouvoir constituant*. Rather it is necessary to develop constitutional principles and rules in a progressive and fluent way, through the conflictual interaction of different powers, particularly with the dialogue between courts in a global networking. Within this scheme, the idea of rights as space of self-determination should also be reconstructed through the principle of responsibility and the concept of care, assuming the stewardship of current human beings upon future generations and the nature itself. Thus, rights should be conceived rather as a means for the protection of vulnerability than for the self-development of individuals.

In any case, the idea of constitution seems to be the adequate channel to construct a legal—i.e., social—response to Anthropocene. Although it is necessary to go beyond its traditional liberal features. This issue has been developed by Louis J. Kotzé in his chapter. He begins with the construction of a normativity pattern for the Anthropocene, linked with the ideas developed in the previous contribution. Then, Kotzé approaches to the idea of global environmental constitutionalism, developed in recent years against the backdrop of the debates about global governance and environmental crisis. At the end, the chapter raises interrogations about how a global environmental constitution is possible, advancing some problems and fresh ideas to develop a legal channelling of global governance, connected with the theoretical explorations of the previous chapter.

Kotzé stresses the need to elaborate a global environmental constitution, pointing out to the need of comprehensive constitutional documents in the international arena. With this, it is possible to give substance to the concepts of responsibility and care, making them operational in real legal life. As Kotzé points out, “we should act deliberately now by providing the type of higher order, binding norms that could reflect an inclusive good of Earthly existence in and through a global environmental constitution.” This view allows us to construct a constitutional discourse for the Anthropocene according with the fundamental values of sustainability and justice, deeply intertwined in this epistemological framework. The World Charter for Nature of 1982 seems to be a promising starting point in order to boost legal action and social activism in the construction of a constitutional support for global governance, assuming the challenges implied in the Anthropocene narrative.

One important thing when imagining global governance is the question of global commons. The fragmentation of political space and the development of the capitalist world-system has erased the idea of commons as a form of social responsibility regarding nature. However, with the global environmental crisis, the awareness of the importance of commons has been recuperated, as in the case of the oceans or the climate. This awareness contributes to design a comprehensive narrative of interaction between society and nature. If the idea of constitution is important in order to confront the crisis of the Anthropocene from the legal point of view, the recuperation of commons is a substantial concept in order to advance in the overcoming of the utopian and predated ideas developed by modern Western capitalist culture.

As Klaus Bosselmann points out in his chapter, “[g]lobal commons governance reverses the traditional rule that international law and governance ends where national borders begin.” Taking into consideration that the borders cannot be conceived as absolute limits anymore and that sovereignty should to be modulated within the Anthropocene paradigm, global commons can be reconstructed as common heritage of mankind. This approach allows for the constitution of trustees in order to guarantee sustainability and justice. For this reason, global commons are a very helpful concept for a critical constitutional discourse, as formulated in precedent chapters. Consequently, we should go beyond traditional state sovereignty as a basis for governance and power, in a framework defined by pluralism as well as globalism. The combination of both gives way to a new kind of constitutional thought, developed in order to give an answer to fundamental issues of climate change mitigation and adaptation, from the local communities to global polity.

Within this framework, the empowerment of citizens and civil society is the correlate of the splitting of traditional homogenic conceptions of sovereignty. For this reason, it is important to be aware of the possibilities of the fragmentation of constitutional discourse, shifting from regulation to adjudication. Hence constitutional thought, governance of commons and climate litigation make part of the same complex phenomenon, defining a theoretical framework which allows to incorporate the Anthropocene narrative into the legal culture. This particularly affects the Western common law and civil law systems, where sovereignty, atomistic rights and legal certainty have been key features. The rest of the book deploys these ideas into operational legal concepts and instruments.

II. THE CONSTITUTION AS A GLOBAL GOVERNANCE FRAMEWORK

Once the scene has been set, underlining the challenges that climate change raises to legal thought and to constitutionalism, the second block of contributions aims to construct a constitutional framework to govern the Earth System, conceived as a socionatural complex. Here is crucial to be aware of the global dimension of the anthropogenic changes caused to the biosphere as a comprehensive reality, as well as of the multiple cleavages, at social, political and legal level, that cross the global society. Environmental constitutionalism provides the theoretical lenses to confront climate change issues from a constitutional approach.

Global environmental constitutionalism has been an emerging topic in recent years and allows to develop the fundamental arguments presented in the first part of the book, connecting them with a constitutional framework for the climate. This has been addressed by José Rubens Morato Leite and Patryck de Araujo Ayala in their chapter, focused on some of the main topics related with the construction of a global constitutional order for governing the Anthropocene, exploring crucial issues, as environmental rights and the environmental rule of law. This contribution ends for mapping the fundamental conceptual tools of environmental constitutionalism, providing a critical approach, sensitive to the problems and developments about the protection of nature in the periphery of the capitalist world-system, and reflecting upon legal innovations as the recognition of rights to nature, in recent Latin American constitutionalism.

The analysis on the global environmental constitutionalism delineated by Morato Leite and Araujo Ayala is complemented by José Manuel Pureza in his chapter, under the title ‘Global Constitutionalism as an Ambivalent Script.’ He points out that the hegemonic construction of global constitutionalism is corresponding to the institutional order of late capitalism. With this chapter, one can see that the global constitutionalism is an ambiguous notion. It can evolve into a justification of current hegemonies, without confronting the serious issues about justice and sustainability raised by the evolution of the capitalist world-economy. However, it can be developed too in an alternative way, as intended in this book.

This chapter explores how international law transforms itself into a constitutional order, designed mainly to provide with institutional tools and structures to the hegemonic processes of social reproduction, i.e. global financial capitalism. José Manuel Pureza concludes with an interrogation: can global constitutionalism evolve into a powerful tool

of control for the global market? This clarifies the fundamental aim of the book: to provide a different approach to global constitutionalism, helping to develop counterhegemonic strategies confronting the fundamental issues raised by the Anthropocene narrative, i.e. global sustainability and global justice. This is examined in the following chapters, where different ways to innovate constitutional discourse are explored, aiming to deal with the challenges raised by anthropogenic climate change.

III. THE CONSTITUTION OF FRAGILITY: JUSTICE AND SUSTAINABILITY FOR CLIMATE GOVERNANCE

It seems that any attempt to elaborate a constitutional discourse in a complex global society should rely on an open, flexible and fluent concept of constitution, operationalised through legal actors. This idea allows us to confront the lack of a formal global constitution. Grouping and developing different bodies of law with constitutional vocation is a complex operation of legal interpretation. Such an activity should be deployed through different procedures and jurisdictions, in order to provide effective tools of controlling power—public as well as corporate. Moreover, in a limited and vulnerable world, it seems that the constitutional texture here proposed should be understood as a constitution of fragility, as far as the Anthropocene narrative implies the awareness of the fragility and vulnerability of the Earth System, as well as an obligation of care and responsibility for the global society.

Responsibility—regarding the humanity, concrete vulnerable communities and groups, future generations, other species, or the Earth System as whole—should define a paramount constitutional concept for the Anthropocene and should penetrate into traditional constitutional ideas as human rights—moving from an atomistic conception which delimitates personal autonomy to a conception underlining the need of protection for situations of vulnerability in a context of interdependence—. This is the fundamental thread unifying the contents of this block. The chapter ‘The Fragility of Climate, Human Responsibility and Finding the Impetus to Act Decisively,’ by Karen Morrow, sets the scene for successive contributions to explore substantial contents of global climate constitutionalism.

She refers firstly to rights, responsibilities, states, citizens and climate change, analysing the double crisis of the fundamentals of constitutionalism—rights and sovereignty—in

the context of the capitalist world-economy, a system of social reproduction boosting the human transformation of climate. This chapter expresses some sense of urgency, and underlines the importance of ethics of care in adapting human behaviour to climate change challenges. Underlining the importance of embedding human rights within a framework addressed to guarantee responsibility and care before life, the chapter defines how the Anthropocene is modifying the cultural foundations of modern Western law.

Crucial concepts as vulnerability and interdependence are developed through a perspective inspired in an ecofeminist approach, aiming to provide post-mastery patterns in governing the transformation of the Earth System through human activity. This approach connects with the critique visions on global constitutionalism presented before and allows to design a new dimension for human rights in the context of the ecological crisis. As Morrow underlines in her chapter “[a]n ethics of care approach does however, does offer a considerable advance on the current position, eschewing a purely instrumental view of non-human nature, as it positions humanity as ecology suggests: as an integral part of the web of relationships that comprise the biosphere.” This seems a promising idea, clarifying the substance of a constitutionalism of the earth to confront climate change.

From this point of view, substantial aspects regarding sustainability and justice in the context of the Anthropocene emerge through the “recognition of women’s care and agency,” as the author points out. The chapter concludes with a call for action “combining a science-based grasp of what human vulnerability means and how it applies to all of us, with an appreciation of the full scope of agency, harnessed to responsibility,” aiming to “promote planetary care in order to ameliorate the existential threat of climate change.” Further contributions explore how certain human rights in particular and the overall idea of rights can serve as a channel to develop a caring perspective on climate policies and climate law.

Next chapter is focused on how human rights tradition can work as an appropriate repository of responses to problems caused by climate change. Can the liberal tradition of civil and political rights be suited to address a problem that demands to reinforce responsibility and accountability, focusing on care, vulnerability and interdependence? As Amy Sinden points out, the question is how these rights can act as “correctives for distortions in the processes of government decision making caused by power imbalance,” which can have consequences to some extent in the deterioration of climate conditions,

when promoting or allowing certain technologic and economic patterns impacting in the climate system.

In this vein, the author proposes two different ways of transforming human rights into convenient tools for confronting climate issues before the courts. This perspective allows to explore the link between the critical considerations about the state-of-the-art constitutionalism, made in precedent chapters, and the viability of constitutionalizing demands centred in the impact of climate change, particularly for the case of less favoured groups. According to Sinden, in one hand, human rights strategies can help to reveal “distortions in government decision making fueled by power imbalance have played in creating the climate crisis.” Secondly, considering the individual autonomy-centred approach of the classic constitutionalism, the focus can be oriented to “the uniqueness of state power with respect to the climate crisis.”

However, in the global scenario of contemporary capitalism, states have a limited range of influence in the complex of human action modifying the climate (and the Earth System as whole). As Sinden remarks “harm-causing acts come primarily from private actors. To be effective, the climate right must be able to challenge the state’s *failure* to act to regulate the harmful actions of private parties.” The necessity to tackle the activities causing harm through the transformation of the biosphere by private actors, i.e. corporations, as well as to establish liabilities is linked to the protection of embodied vulnerabilities. Putting the emphasis in adjudication rather than in regulation seems to be a reasonable consequence of this link.³ In fact, the chapter focuses in how litigation could serve as a tool to control government failure and to establish liabilities regarding the massive use of natural resources causing climate disruption and Earth System anthropic transformation. “A human right to security from climate disruption squarely in the civil and political rights tradition,” in the sense proposed by Amy Sinden could be very helpful in this direction.

However, this framing should be nuanced to some extent in the global scenario. It is reasonable to think that the human rights tradition can be developed into a tool for the protection of (embodied) vulnerabilities, rather than for the construction of spheres of self-determination. However, the global dimension of the climate processes, underlined in the chapter authored by Klaus Bosselmann, introduces some interrogations about how to advance in this line. The contribution of Bharat Desai and Balraj Sidhu stresses two

³ See Myles R. Allen, Richard Lord, ‘The blame game’ (2004) 432 Nature 551.

different but related issues to be taken into account in the constitutionalization of climate: i) the unbalances of power in the construction of the international climate regime; and ii) the cultural biases in the hegemonic approaches to the consequences of climate change in human communities. In this context, the notion of ‘common concern of the humanity’ is a conceptual tool to build a framework for protection of vulnerability regarding climate change, as well as to open a space of conflict, in terms of power and culture. Indeed, constitution-building is never a neutral process and shows the cleavages and struggles in a certain society, which tend to increase with the level of complexity. Consequently, the constitution is conceived here as a space of conflict.⁴

Desai and Sidhu analyse with some detail the origins and development of the international regime of climate change until the Paris Agreement, dissecting the negotiations and the agreements, aiming to establish the implications of the concept of common concern of the humanity. The profound link between justice and sustainability, progressively established through the previous contributions, appears here in relation with territoriality, expressing the essential inequality of the capitalist world-system, which is the social structure that causes climate change. The arena of international climate diplomacy is presented here as a space of conflict, giving a new dimension to the constitutional discourse developed previously. The understanding of the climate as a common concern of the humanity implies the acceptance of the principle of common but differentiated responsibilities, a fundamental of climate constitutionalism, related with sustainability, justice, vulnerability and human rights, as core concepts developed in previous chapters.

In any case, the international law regime affords materials to advance in the constitutionalization of climate change law, through a plural, evolving, flexible and multipolar constitution. As Desai and Sidhu conclude in their chapter, “it provides an important benchmark for the scholars to make sense of concerted global efforts to bring about ‘constitutionalism’ in the international law-making process to address this climate change as simmering global *problématique*.” Nevertheless, as the authors let intuit, the problem is how to overcome the hegemonic trends that influence the international regime of climate change—like any particular regulation configuring the current constitutionalism of global capitalism, as the financial system or the international trade. These issues are addressed in the following chapter.

⁴ See Carlos de Cabo Martín, *Pensamiento crítico, constitucionalismo crítico* (Trotta, 2014) 59.

The approach of Gregorio Mesa Cuadros starts from detecting that current hegemonic constitutional ideas result in significant shortcomings regarding sustainability and justice. The author brings to the foreground the sensibility of the peoples in the periphery of global capitalist economy, where social disruption and environmental damage are related and a persistent extinction of cultural and biological diversity takes place. Considering the destructive effects of global capitalism in the communities and ecosystems in the global South, Mesa Cuadros relies on the idea of an environmental rule of law, which was already presented in the previous chapter authored by Morato Leite and De Araujo Ayala, to explore a new constitutional terrain aiming to take seriously the position of the less advantaged in the global world-economy.

Paraphrasing the concept of Joan Martínez-Alier, Gregorio Mesa Cuadros is proposing a constitutionalism of the poor.⁵ In this vein, he starts from recent developments in the constitutionalism of the world periphery and, particularly, in Latin America, as the recognition of the rights of nature in the Ecuadorian Constitution (2008), the holistic approach of the Bolivian *Ley Marco de la Madre Tierra y Desarrollo Integral para Vivir Bien* (2012) or recent case-law by the Colombian Constitutional Court, attributing rights to the Atrato River and the Colombian Amazonia. He considers these recent developments as a practicable path to construct effective tools of protection and reparation for environmental degradation and social injustice.

In this sense, his position is linked with the protection of vulnerabilities analysed in the contribution of Karen Morrow, presenting a different point of view regarding the possibilities of using constitutional discourse before the courts to protect people and to establish liabilities for environmental degradation, envisaging concepts as ecological footprint and ecological debt. Even if subjected to criticism, this comprehensive vision of rights is offering promising developments in recent case-law in different parts of the world, particularly in Latin America.

IV. CLIMATE JUSTICE, CLIMATE LITIGATION AND GLOBAL CONSTITUTIONALISM

⁵ See Joan Martínez-Alier, *The Environmentalism of the Poor. A Study of Ecological Conflicts and Valuation* (Edward Elgar, 2003).

The ample approach to rights, developed in some constitutional systems, as the Ecuadorian, shows a path to transform traditional legal instruments for advancing in the protection of embodied vulnerabilities. The link between constitutional discourse and climate litigation seems by now well-established, in a scenario of partial failure of global regulation and evident injustices and unbalances at global level. The first contribution of this block is devoted to develop the idea of climate justice against the backdrop of the different perspectives developed in the previous four chapters.

The starting point is again the rift between global North and South, between centre and periphery of the world-economy. As Attapatu points out, this division is the origin of the concept of climate justice, which is central in the construction of any constitutional model for climate change governance, particularly from the point of view of the allocation of responsibilities. The chapter underlines four senses of justices in this context, linked with the arguments regarding the protection of vulnerabilities and recognition of injustices developed in previous contributions. For Attapatu, climate justice is encompassing “the distributive justice [related with the principle of common but differentiated responsibility;] procedural justice [... which] requires access to information, participation in the decision-making process especially by vulnerable communities and access to justice; [c]orrective justice; [... and a] social justice component seeks to underscore that social justice struggles cannot be separated from other struggles for justice and that historic marginalization and inequalities have to be addressed if climate justice is to be achieved.”

In her prospective on climate justice, Attapatu focuses on case-law developments in South Asia, which to some extent complement the innovations in the constitutional law of the Andean area, more or less summarized in the contribution by Mesa Cuadros. With the decisions analysed by Attapatu, we can see how courts play a significant role in exploring new meanings and new perspectives in the construction of a constitutional discourse for the Anthropocene, particularly centred in social responses to climate change. Regarding to this, as Attapatu underlines, “national judiciaries in South Asia have been the foci of significant action relating to environmental rights, developing a robust body of jurisprudence on the subject.”

The contribution ends by pointing out the mutual positive influence between human rights discourse and (climate) justice, to the extent that the latter allows to put the emphasis on responsibilities and contributes to create a framework where rights are conceived as

protecting vulnerabilities and confronting unsustainability and injustice. As Attapatu remarks, “[a] justice approach would not only complement a human rights approach, it endeavors to soften the rigidity of the latter by highlighting the greater responsibility of the major emitters.” The next contribution is focused again in justice, starting from the awareness of that “[t]he most impoverished populations are more exposed to the consequences of climate change.” Among the most vulnerable people, there are “women and girls” because of their disadvantages are aggravated “by gender inequality,” as Susana Borràs underlines in her chapter, under the title of ‘Climate Migration, Gender and Poverty.’

The contribution focuses on an important aspect of climate injustice, the displacement of persons due to environmental changes in their places of living caused by climate change. Climate migrations show how the current governance of climate results in injustices at global level, affecting the most vulnerable population, particularly in the global South. Moreover, the displacement of people caused by the changing of climate is gendered-biased, showing here profound disruptions, unfair hierarchies and manifold unbalances in the context of the hegemonic framework of global governance. Denouncing this situation, Borràs underlines that, despite “[t]he analysis of gender issues is relatively new in the study of climate change and migration, [... it] seems to be a consensus that it affects women in a disproportionate way [..., but] the legal framework does not respond to this reality.”

Again, the importance of using a human rights framework to protect embodied vulnerabilities is here remarked, paving the way to construct a constitutional discourse feeding social movements, as well as giving the courts the tools to explore counter-majoritarian narratives, seeking for justice and sustainability in climate change governance. This implies a vision of law beyond the courts, but also reinforces the role of them in protecting vulnerable people. As the author indicates “[t]he basis of achieving gender equality within the framework of climate change goes through the recognition of gender justice and climate justice, through equitable participation, the incorporation of the gender perspective and respect for the human rights of women.”

With the different aspects of climate justice explored in previous contribution, May and Daly advance in giving it a constitutional substance, operational by the courts, connecting with the approach of Sinden about how rights can be used as a constitutional tool in climate litigation. The authors remark here that “climate justice falls at the vertex of

international, regional, national and the common law, basic notions of human and environmental rights, and human dignity.” For this reason, climate justice can be a crucial notion in order to develop a constitutional discourse aiming to guarantee sustainability and justice in the Anthropocene and, particularly, to confront the problems caused by human induced climate change.

The constitutional dimension of climate change is in fact reaching an explicit treatment with some “[e]xpress constitutional incorporation of provisions addressing climate change.” As May and Daly underline, this “provides new avenues for advancing climate justice.” Accordingly, the authors explore some cases where constitutional provisions have helped to propel climate litigation, considering specially some specific ones addressing directly climate change issues. With this contribution, a framework is offered for the construction of a constitutional texture helping vulnerable people to challenge decisions resulting in a worsening of the climate system or demanding responsibilities to actors causing negative effects on climate. Nevertheless, the kind of climate injustices that have been analysed in this block are the result of a concrete social metabolism, defining energy consumption patterns in a system characterized by certain social hierarchies and preferences. The last block is devoted to describe this, in order to assess how constitutional innovation can address the injustices and shortcomings of current patterns of energy consumption and distribution.

IV. SOCIAL METABOLISM, ENERGY AND CONSTITUTION

Advancing in the protection of the vulnerabilities generated by the Anthropocene—and, particularly, by climate change—demands an appraisal of how social metabolism is working in the context of the capitalist world-economy and, specifically, how global society is obtaining and using energy. This is the core issue in the economic structure of global society. So far, the hegemonic energy model has boosted exploitation of resources and anthropic transformation of the biosphere, widening the gap between affluent and poor people. In the way of a prospective constitutional discourse, the last block of contributions analyse the fundamental issues related with an energy transition as well as with energy justice, linked directly to climate justice. This is intended to help in the construction of a climate constitutionalism able to transform hegemonies and revert hierarchies in the current global state of affairs.

The first contribution, by Melissa Powers, is focussed in the energy transition, exploring “the ways in which existing energy policies have failed to grapple with the implications of the energy transition on the world’s social metabolism [... and] strategies for governments” to advance in such a process. This contribution underlines the difficulties and challenges to be confronted in a process of energy transition, which is necessary in order to tackle the main negative effects of climate changes. Particularly, “[a]n abrupt energy transition—which is necessary to prevent catastrophic climate change—could exact an enormous toll on communities dependent upon fossil fuels,” raising new justice issues in the complex management of the Earth System.

In this context, after analysing in detail the different issues related to an urgent decarbonization of the global social metabolism, Powers introduces the idea of just energy transition, aiming to confront the eventual “profound social unrest and [...] unnecessary ecosystem fragmentation and degradation” in the process of changing the energy model. Planning is crucial in such a transition, where constitutional ideas can provide an axiological framework to proceed, to prevent a further degradation of the Earth System, “developing a renewable energy system that occupies the smallest and least harmful footprint possible.” At the end, as Powers points out, changing the energy system is actually changing the world, being one of the most if not the most important challenges that the humanity has ahead.

Once exposed the different challenges implied by a just energy transition, the following contribution, by Endrius Coccio, is focused in ascertain the role of global constitutionalism in this transition, inserting the energy system in the comprehensive process of adaption to the Anthropocene, as a new paradigm for socioecological developments. The role of the energy system in this process is related with the financial structures, as both define the metabolic core of the capitalist world-economy, which has generated climate change and raised the constitutional problems addressed in previous contributions, regarding sustainability and justice in the era of the Anthropocene.

As the author underlines in his contribution “[s]uch a task requires to move beyond legal positivism and to draw up a critical normative theory, which in addition to be constitutional in nature, should to be grounded on a material basis.” According to the theoretical framework developed in the previous chapters, Coccio highlights the idea that a constitution for the Anthropocene must be imagined beyond the narrow limits of a constitutional document regulating the political system of a nation-state, as has been

conceived in the past. Rather, it should to be conceptualized as a multilayered and fluent artefact, helping to achieve the traditional functions of the constitution as normative framing of power. Hence, a successful transition seems to be linked to a reconstruction of the idea of constitution according to the necessities of new forms of power, as well as the new possibilities of transforming the biophysical support of society or the definition of new vulnerabilities.

In this vein, the author remarks the necessity to developed “a theory linked to the limits, carrying capacity and ecological cycles of the Earth System, so that it can be established as a real *Grundnorm* within the normative order proposed by global constitutionalism [..., overcoming] the legal fiction developed based upon Modernity’s ontological dualism of subject (solely and exclusively human) and object (nature and all other living beings).” The final goal is “to build a legal discourse able to provide engaging and therefore proposing solutions to confront the complexity of the coevolution of the geosphere, the biosphere, and the techno-anthroposphere.” These constitutional developments could help to tackle the main challenges raised by anthropogenic climate change in the different domains where global governance is deployed, from litigation to international diplomacy.

In any case, we are confronting a watershed as a species. The transition to the Anthropocene, mainly defined by the need of confronting climate change, demands a collective action at global level, implying deep changes in our ways of governing ourselves and governing the planet. As analyzed in the previous contributions in this block, a whole transformation of social metabolism through comprehensive changes in energy production and consumption is required, and the constitutional arena is the conceptual space to discuss, develop and formalize the global decisions that the present scenario is demanding. In this context, the concept of just transition is crucial in order to define how we evolve as a global society to a sustainable and equitable scenario, where we are capable to confront the dramatic changes that the capitalist economy has operated in the Earth System and to channel our future action in less aggressive and fairer terms.

As Heffron and McCauley point out in their chapter, “[t]he just transition captures the ‘just’ process when societies move towards an economy free of CO2 emissions. Justice is an important element to the transition, because often the rhetoric of governments, companies, institutions and researchers discuss ‘a transition to low carbon economy’ and then there is no mention of ‘just.’” According to this, the idea of climate justice in the Anthropocene requires promoting a just transition to a sustainable future free of fossil

fuels. At the same time, it is necessary to protect the most vulnerable people and countries from the impacts of anthropogenic climate change. A lot of work for constitutionalization is to be done here, attending at the complexity and the importance of these issues, and the need to promote action beyond institutional actors, submitted to the rules of traditional diplomatic exchange.

Regarding the just transition, as Heffron and McCauley point out, innovative legal solutions and, particularly, the renovation of constitutional discourse are a key issue to advance into a low-carbon economy. This constitutional reframing of social reproduction should to be addressed to reach more equitable social relations and more sustainable social behaviors, with the goal of stabilizing of the exchange between society and nature, i.e. the social metabolism, in the fairest possible terms. This is not a natural evolution of current societies. In fact, it implies a certain level of conflict, where established hegemonies and hierarchies should to be challenged. According to this, the constitution is conceived here as a space of conflict where different actors compete for designing the hegemonic discourse.

In this vein, a plural and open constitution in the sense defended here should to path the way in order to operate a just transition to a post-carbon global society, as well as a to help to deploy a more sustainable and equitable social metabolism. Hence, spaces of social self-determination, as local communities, and the courts should contribute to develop a new constitutional language beyond the formalistic view of the traditional constitutionalism of nation-state. However, the aspiration to build an effective tool for controlling power and channelling social reproduction should to be the same, now in a global scenario. The contributions to this book, in a rather kaleidoscopic way, try to provide some clues to the task of reshaping the constitutional narrative in the middle of the most important crisis that the humanity as a whole has had to confront.