

Global Climate Policy: Actors, Concepts, and Enduring Challenges

Edited by Urs Luterbacher and Detlef F. Sprinz

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1 Our Approach

Urs Luterbacher

1.1 Main Issues and Major and Enduring Challenges

This book is about the international political context of climate change. It constitutes a novel set of analyses about the current international climate change regime. This international regime, despite some setbacks such as the recent decision by President Trump to withdraw the United States from the Paris Agreement of 2015, has already a long history, and it looks like that its growth pattern will continue. This evolution will in all likelihood happen in some sense despite and maybe even because of the American decision as other members of the international community will probably step in and seek to strengthen the Paris Agreement on their own.¹

Institutionally, the international climate change regime goes back to the drafting of the United Nations Framework Convention on Climate Change (UNFCCC) in 1992 at the Earth Summit in Rio when almost all UN members acceded to it. Currently 197 parties have ratified it. Once a year, the state of the international climate change regime is reviewed by the Conferences of the Parties to the UNFCCC (COP). The first (COP 1) took place in Berlin in 1995. The second (COP 2) was set in Geneva in 1996, and the third (COP 3) in Kyoto in 1997. The making of the Kyoto Protocol to the UNFCCC resulting from COP 3 was supposed to enhance decisively climate change mitigation by introducing mandatory greenhouse gas reduction targets for industrialized countries.² Since the beginning of the new millennium, the initial hopes that emerged after the elaboration of the Kyoto Protocol to construct a strong international climate regime with mandatory reduction obligations have faded. Currently, global climate negotiations have reached a new dimension with the conclusion of the Paris Agreement at COP 21 in

December 2015. It remains to be seen to what extent this agreement, which still has to be worked out in some of its details, will achieve its goal of limiting the rise in global temperatures to 1.5 to 2°C. The Kyoto Protocol *system* has been seriously threatened through the defection of Canada, and the Paris Agreement has moved from country-specific reduction goals (Kyoto Protocol) to national voluntary target setting (called nationally determined contributions [NDCs]). However, the Paris Agreement sets a goal to limit global temperature increase to “well below two degrees Celsius.” In some sense the Paris Agreement represents a return to the situation that existed before the elaboration of the Kyoto Protocol when only the UNFCCC established in Rio in 1992 was defining the structure of the international climate regime—but with the addition of a well-defined global target. This regime has thus evolved so far within three phases. The first one was dominated by the UNFCCC with the idea that additional protocols to the treaty would eventually be agreed upon. The second phase was characterized by the elaboration of the Kyoto Protocol and the third one now by the Paris Agreement. All three phases present their own specific challenges for international coordination and cooperation strategies.

The original UNFCCC treaty contained very few obligations (such as reporting on emissions) and mostly recommendations such as avoiding dangerous anthropogenic interference with the climate system (art. 2). The definition of what this meant was not clarified. In fact, the specification of these recommendations was left to future elaborations of principles to be adopted within particular protocols similar to the Montreal Protocol to the Vienna Convention for the Protection of the Ozone Layer. The principles that were adopted after the conclusion of the UNFCCC were the Berlin Mandate, which established the guideline that industrialized countries should make the initial efforts to mitigate climate change. Finally, at COP 2 in Geneva, the decision was taken that industrialized countries should establish and observe mandatory and binding emission reduction targets, a move that opened the way for the elaboration of the Kyoto Protocol. In summary, this phase is characterized by coordination moves aimed at reaching a certain goal, in part through cooperation among at least a group of countries.

Recall here that coordination moves are about establishing conditions to meet a certain endpoint that may or not involve cooperation. To illustrate such a process, it is useful to evoke the analogy about the issues that arise

when some people have to agree on a place to meet for dinner. Agreeing on a place to meet is basically a coordination problem. If we want to draw a parallel with climate change negotiations, the two degrees limit increase agreed on in Paris represents the meeting place. On the other hand, cooperative moves are all about how to reach such a meeting place by having people collaborate with each other. Now it is possible that some people involved in reaching the dinner destination have a harder time than others getting there because they do not know the city or because it is more complicated for them to go there than for others. This makes the path to the meeting area more expensive for them. This inequality problem in reaching the destination can be solved by cooperation. Since it is essential that in the end most people reach the predetermined place, cooperation would be a desirable feature that would make sure that everybody gets there in a reasonable amount of time. However, establishing such cooperative moves can be quite hard to achieve in practice.

As emphasized by Bueno de Mesquita (2009), it is difficult to get countries to participate in a cooperative effort that entails significant up-front costs and only long-term benefits in the form of damage avoidance. It is already sometimes problematic to get countries to agree to cooperate when significant and relatively rapid mutual benefits are extant, as, for instance, in trade agreements. It might, however, be possible to convince international actors to embark on a costly enterprise if it provides quick and tangible side benefits that are independent of the avoided long-term damage which would eventually result from a strong climate change regulatory system.³ This is what the Kyoto Protocol tried to accomplish but, as will be discussed later, failed to do. The Paris Agreement represents a return to a pure coordination strategy that largely eschews to make explicit the ways in which its ultimate goals of a global temperature increase limit of two degrees will be reached, as will also be discussed later.

The Kyoto Protocol was negotiated at COP 3 in Kyoto and entailed mandatory reduction targets for all industrialized countries. These were determined along different greenhouse gases and were taking into account the particular situation of each country.⁴ The protocol was severely hampered by the fact that the Clinton administration that negotiated it for the United States did not send it for ratification to the US Senate. The George W. Bush administration that succeeded it refused to ratify it and got out of the Kyoto process altogether. Nevertheless, the other participants decided to continue

and to obey its targets. Kyoto was clearly a major effort at cooperation with a relatively centralized organization that allowed countries to operate reductions via a variety of means, among them emission reduction exchanges with others. However, Kyoto failed to attract further members and so the reduction efforts were confined to a relatively small group of countries. Their initial intent was to prove to the rest of the world that their reduction attempts were possible and worthwhile. However this strategy of “leading by example” did not work. Global emissions kept increasing at an exponential rate mainly because of the industrialization of China and India as figure 1.1 shows.

Kyoto’s goals were finally reached for the set of countries that were following it but this achievement was hollow. In some sense Kyoto was a local success but a global failure that revealed the difficulties of reaching climate change goals with cooperative strategies that require internationally defined commitments. In addition, the failure by the European Union to

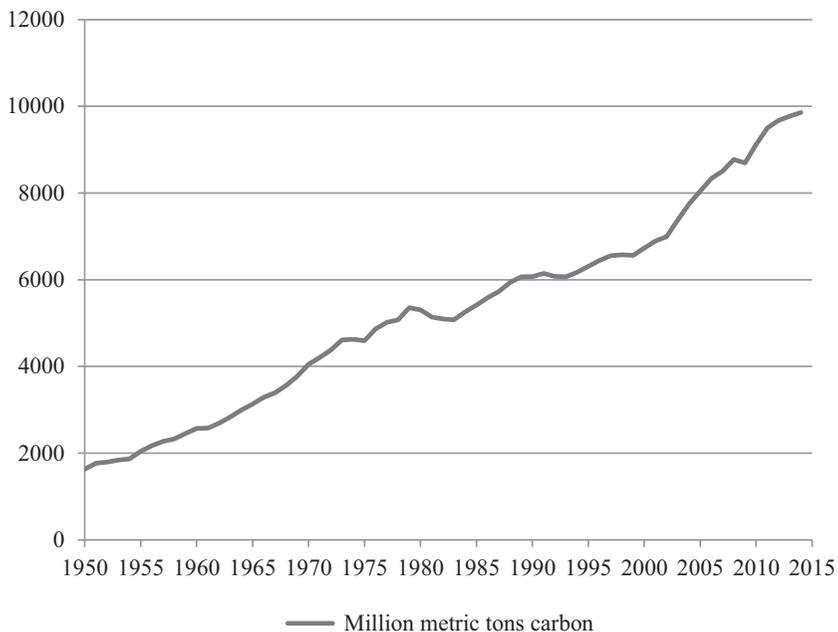


Figure 1.1

Global carbon emissions from fossil fuels 1950–2014.

Source: Data from Boden, Marland, and Andres (2017).

create an effective EU Emissions Trading System⁵ helped to discredit such schemes at the international level as well. These failures revived the notion that systems based on decentralized coordination were better than those that rely on more centralized legally binding reduction targets. The Paris Agreement of 2015 can be considered as resulting from this conception.

In line with achieving coordination rather than cooperation, the Paris Agreement is more oriented toward voluntary reduction targets, which every country is supposed to undertake and which are subject to periodic reviews. The fragility of this arrangement is obvious with the election of Donald Trump in the United States and his efforts to undo some of the domestic commitments made by his predecessor together with Trump's decision to withdraw from the Agreement.⁶ In order to achieve the dismantling of the US targets under the Paris Agreement, the current president did not even have to formally withdraw from it as it has neither rules nor binding obligations in terms of reduction efforts. The only expectation that the Paris Agreement provides is that each country will eventually implement some reduction commitment, a clear coordination goal. The fact that most countries have now embraced this concept leaves the European Union as the last guardian of the spirit of the Kyoto Protocol and the user of some of its mechanisms with the exception of some internal institutional actors such as American states or cities. These recent evolutions of the international climate change regime present major challenges in terms of evaluation and analysis. The authors of the chapters of this volume have been asked to provide further attempts to assess the current situation from a variety of dimensions and considerations.

The current climate change regime seems still to be at a breaking point despite the Paris Agreement: either the present institutional and negotiation structures will be preserved with the possibility that they will stagnate, die, or become irrelevant—or new forms of international cooperation will be created that will tame climate change. Our book examines these bigger and enduring challenges, especially chapters 3–5 are dealing with the “fundamentals” in terms of theory to help in the understanding of behaviors of national and subnational units involved in climate change negotiations. Subsequent chapters cover the methods and actors characterizing the global climate regime, as well as compliance and effectiveness. The book, on the one hand, attempts to give a detailed picture of the current situation and, on the other, tries to offer some answers to the question of the

persistence of existing structures—or the emergence of new ones. In this sense, a good review of the Paris Agreement seems warranted to see to what extent it brings something new to the current negotiation structures.

In the following, we summarize the many issues investigated in the chapters included in the volume.

1.2 The Evolution of the Architecture of the Climate Change Regime

The evolution of the architecture of the climate change regime from its beginning until the Paris Agreement is undertaken by Daniel Bodansky and Lavanya Rajamani (in chapter 2). In their presentation, the authors examine the COPs of the UNFCCC to see if it remains an important forum, or if it will tend to be superseded recently by initiatives emanating from the G7 or the G20. The authors also provide an overview of the Paris Agreement, including the avenues of further elaboration of the agreement.

1.3 Theoretical Considerations

Michaël Aklin (in chapter 3) reviews a concise set of theoretical positions on climate change collaboration. He concludes that “since power is partly drawn from a solid economy, anything that might curb growth in the short run should be viewed with suspicion (Waltz 2000). To the extent that a climate treaty requires the reduction of industrial activities, realists would be skeptical about whether states could credibly commit to it.” Thus, even if legally binding, the question remains if such international agreements can really be enforced. In contrast, he discusses whether the failure of cooperation in environmental matters is resulting from the lack of proper institutional setups as sometimes claimed by neoliberal institutionalists. He also evokes the position taken by constructivists who attribute problems of collaboration to a lack of common culture or language and also to the absence of epistemic communities to contribute to its development (Haas 1992, 2004). Finally, Aklin also analyzes the capacity of the interplay between domestic and international explanatory schemes to account for either success or failure of climate change cooperation.

One can reasonably conclude from this analysis that rather than seeing all these perspectives as rival, they should also be investigated in terms of their complementarity, each of them addressing different aspects of a social

reality. The rational choice assumptions, common to realism and to neoliberal institutionalism, have to rest on the assumptions of common knowledge and consistent alignment of beliefs, all conditions to which constructivism may have useful things to suggest. Substantively, it is difficult to delimitate a strict realm of international politics, which is not influenced by domestic affairs, thus the necessity to study the interaction between these two domains. It thus appears necessary to look critically at some of the conceptions presented by the various schools of thought to explain climate change collaboration or the absence thereof.

1.4 Formal and Simulation Approaches of Climate Change Cooperation and Coalition Analysis

The book covers formal and simulation approaches in two chapters, one focusing on purely formal approaches based mostly on game theoretical considerations, and the other dealing with computer simulation and computational models.

In chapter 4, “Cooperation on Climate Cooperation: Insights from Game Theory,” the authors Frank Grundig, Jon Hovi, and Hugh Ward analyze how theorists can actually explain the weak impacts of both the UNFCCC and the Kyoto process. However, even though pessimism about the lack of achievements of international climate change abatement procedures dominates the community of scholars dealing with formal models of decision making, some research points to possible ways of achieving substantial progress. The authors analyze the difficulties involved in reaching the path of a generalizable accord on emission reductions and examine how one can design such international processes.

Formal approaches of the kind discussed so far are often usefully complemented by the use of simulation methods. These are implemented via computational models in order to better anchor the kind of representations used by formal analysts into real-world situations. A whole literature devoted to these approaches has been emerging and is reviewed here by Thierry Bréchet and Urs Luterbacher in chapter 5. The approach provides useful tools to not only understand and illuminate current debates but also to assist negotiators of agreements on how to envisage alternative future possibilities. These models can help to evaluate future costs and benefits of climate change even broken down into different countries and regions.

Moreover, they try to assess which kind of coalitions between states will form, given advantages and disadvantages countries can extract from various kinds of international agreements.

1.5 The Climate Change and Trade Regimes

For international accords like the UNFCCC and the Kyoto Protocol, as well as future possible arrangements to work within the existing structure of international agreements, they have to be in tune with other legal regimes such as the world trade system. The legal structure of the trade regime has the advantage of relying on a strong dispute settlement mechanism, which may lead to an effective system of sanctions. It is therefore better to avoid any possibility of clashes between the two regimes. This is the object of chapter 6, by Urs Luterbacher, Carla Norrlof, and Jorge E. Viñuales, which is devoted to an analysis of possible contradictions between the two. The authors analyze the many areas of conflict for which countries, especially in Europe, could be tempted to use “green” protectionism to selectively help their industries. This could be detrimental to trade but perhaps also to environmental and climate change protection because it would deteriorate the status of internationally recognized property rights and thus encourage the overuse of natural resources.

1.6 Leadership Issues and Major Countries

Major countries, such as those emitting 2 percent of GHG or more, can influence climate change bargaining in a significant way. In chapter 7, Detlef F. Sprinz, Guri Bang, Lars Brückner, and Yasuko Kameyama set themselves to examine the situation of these major players in the evolving climate change regime. These include four emerging economies (Brazil, China, India, and Indonesia) as well as four developed countries or groups of countries (the European Union 28, Japan, the Russian Federation, and the United States of America). The authors study the positioning from the perspective of the interest-based explanation and domestic politics, and elucidate the relative power of both explanations and their limitations as applicable to major emitters. It remains important to evoke the nature of the interplay between domestic and international spheres. Major international agreements are not possible without some domestic acceptance.

1.7 Role of Nonstate Actors and Business

The role of nonstate actors is emphasized by Tora Skodvin in chapter 8. Their importance is not so much due to their weight at the international level. However, “if nonstate actors can influence parties at the domestic decision-making level that are pivotal in terms of forming a winning (or blocking) coalition in support of (or against) a particular policy, they may in fact have a significant impact also on the spectrum of politically feasible policy options at the international level.” The role of nonstate actors may have even enhanced through the 2015 Paris Agreement. As a result of the bottom-up approach (NDCs) and the lack of enforcement mechanisms in the agreement, nonstate actors are crucial to hold governments accountable to their commitments.

In addition to the general question of the influence of nonstate actors, the special case of business and industrial interests and their leverage has to be evoked in this context. Matthew Paterson undertakes this in chapter 9. The author, taking a close look at the articulation of business interests, insists that these interests may be divergent as some might actually lobby in favor of climate change mitigation while others do the opposite. These divergent points of view might be explained by the various characteristics of the political economies of the countries in which they are imbedded. However, businesses are always seeking to develop new opportunities for their activities, and decarbonization might just present a novel one as compared with those of fossil fuels. Nevertheless the latter might prevail in the short run and help explain the current lull in establishing further reduction obligations.

Paterson underlines such business interests in conjunction with internal forces. As some domestic interests benefit either morally or materially from an international cooperative structure, they have an incentive not only to promote it but also to check that it is indeed implemented by state authorities. Domestic constituencies can thus play a major role in both initiating and then implementing an international environmental accord, a point made and explained by Dai (2007).

1.8 The Case of Developing and Emerging Countries

While the sharp differentiation between developed and developing countries subsided with the advent of the Paris Agreement, it remains important

to focus on the situation of developing and emerging countries. The idea was that they have historically contributed much less to climate change than industrialized countries and should therefore only contribute marginally to mitigation (as within the framework of the clean development mechanism [CDM]). The special role of these countries is analyzed by Katharina and Axel Michaelowa in chapter 10. They point out that the differences between developing countries might sometimes be just as important as the difference between developing and developed countries. Moreover, they stress the ambiguity of the term *developing country* and the fact that it is hard to circumscribe it precisely. Equity questions concerning historical responsibilities for climate change might be as strong within as opposed to between countries. Finally, despite the vocal opposition of some developing or more precisely emerging countries to accept international obligations to diminish emissions of greenhouse gases, internally they are often inclined (e.g., China and India) to adopt climate change mitigation policies within their borders.

1.9 Implementing and Monitoring Climate Change Agreements

To set up an effective monitoring regime is difficult, as the controversies over the control of the financial system, both national and international, have demonstrated. Therefore, chapter 11 deals with the problems linked to implementation, compliance, and effectiveness of policies and institutions. Jon Hovi and Arild Underdal undertake a thorough analysis of this question within the context of climate change. The two authors detect major flaws in the design of the Kyoto Protocol with respect to compliance and effectiveness, which may account for its relative failure. They discuss the trilemma of “broad participation, deep commitments, *and* high compliance rates,” a difficult task as they recognize themselves under the present circumstances. Whether the Paris Agreement comes close to this deal is discussed by the authors.

Chapter 12, by Detlef F. Sprinz, reviews the contributions of this book against the background of the announcement by President Trump on June 1, 2017, to leave the Paris Agreement or to renegotiate its contents. Subsequently, the Paris Agreement’s main provisions are analyzed, and its architecture embedded in a “Sandwich Solution,” which combines top-down with bottom-up components. The actors covered in this book are drawn together, as well as select aspects of international relations theories and the concepts

used throughout this book. The chapter concludes by demonstrating the prospects of climate mitigation clubs and the tri-part challenge of time inconsistency, domestic fragmentation, and international anarchy.

The challenges presented to us by the current situation are multiple: How will negotiations to bolster the Paris Agreement progress now that the United States seems to have resumed its stance of obstruction? What will keep countries from shirking from self-imposed obligations? How can technological evolutions such as carbon negative procedures be agreed on and implemented? How can local and regional initiatives contribute to climate change control in the future? These questions concern developing as well as industrialized countries and are therefore at the core of the main questions addressed by our authors in this volume.

This brief review of the main issues surrounding the international climate change debate shows in some ways that answers to the dilemma posed in this introductory chapter are possible. In other words, organizing cooperation between states when costs are immediate and high, while benefits are uncertain and distant in time, is conceivable. However, it is an incredibly difficult task and it seems that the present institutional and political configuration is far from adequate in leading us toward such a goal. The current architecture of the international climate change regime might be able to solve some compensation questions, which are connected to helping some poorer countries to adapt to climate change.⁷ To deal with the main problem of long-term mitigation seems, at least for the moment, an elusive goal.

Notes

The author is grateful to Jorge Viñuales for his help on disentangling some legal issues related to the Paris Agreement of 2015.

1. See the contribution by Sprinz in chapter 12.
2. The elaboration of a major international convention based on scientific observations is often followed by drafting subsequent protocols with additional obligations. In 1992 the scientific evidence about the reality of climate change and its dire consequences was far less established than in 1997. This evidence has become even sharper since as tangible consequences of global warming have appeared.
3. Fossil fuels have often significant side effects on public health either in their use or in their extraction processes. This is particularly true for coal burning but also

for so-called fracking of shale oil and gas. Limiting the use of fossil fuels for energy production also diminishes the negative side effects they generate.

4. For more details about this, see chapter 2 in this volume.

5. Too many reduction certificates were made available to firms that, combined with lower prices for fossil fuels, reduced the price of the ton of carbon to such low levels that it was not worth acquiring certificates for trading.

6. The Paris Agreement was engineered not to require the advice and consent of the US Senate for its ratification. This is manifest in a number of features. First, it is an “agreement,” like other executive agreements that can be ratified by the president, rather than a protocol or a “treaty” that would require the Senate’s advice and consent. Second, the entire system can be seen as organizing existing binding obligations that do not arise from the Paris Agreement itself but only from the UNFCCC or from sectorial US legislation. Third, the compliance committee envisioned in Article 15 has no “enforcement” dimension, hence reaffirming the lack of binding commitments arising from the Paris Agreement. For further information on the negotiation strategy followed by the US delegation to engineer the Agreement, see Wirth (2016).

7. The Green Climate Fund has been set up for that purpose. However, here also, US obstruction might make its working much more difficult than anticipated.

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