## **Climate Change Governance:** The Challenge for Politics and Public Administration, Enterprises and Civil Society

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## Introduction

Climate change is a cause for concern both globally and locally. In order for it to be tackled holistically, its governance is an important topic needing scientific and practical consideration. Climate change governance is an emerging area, and one which is closely related to state and public administrative systems and the behaviour of private actors, including the business sector, as well as the civil society and nongovernmental organisations. Questions of climate change governance deal both with mitigation and adaptation whilst at the same time trying to devise effective ways of managing the consequences of these measures across the different sectors.

Climate change governance takes into account principles of accountability, management and institutional strengthening, which are applied when tackling the various challenges posed by climate change. It includes a wide range of steering mechanisms ranging from informal cooperation between different institutions and actors to hierarchical forms of regulation. The governance of climate change can also be approached by applying economic models used in change management, which enable organisational structures to be developed for public administration, contractors or private bodies. Therefore, climate change governance can be described as a wide variety of coordinating methods contributing to the adaptation and mitigation of climate change.

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The broad nature of climate change governance makes it difficult to explain and to conceptualise, since the complexity of climate change and the many ecological, economic and social variables with which it is associated extend beyond the scope of traditional governance processes. Indeed, as stated by Meadowcroft (2009: p. 28), "climate change governance requires governments to take an active role in bringing about shifts in interest perceptions so that stable societal majorities in favour of deploying an active mitigation and adaptation policy regime can be maintained." Effective climate change governance depends on collaboration between governments and other non-governmental organisations. Against the backdrop of cooperative governance, the business sector must take on an active role. On the one hand, mitigation and adaptation support economic interests by promising new technological innovations as well as offering potential in the marketplace. On the other hand, climate change governance requires a collaborative approach in order to find suitable solutions fitting the requirements of private participants, and appropriate for businesses as well as the civil society, the latter in its role as a tenant or home owner. This encompasses energy efficiency, commuter routines and lifestyle choices in private homes.

Therefore, the need to engage different sectors of society in the climate change debate has become increasingly apparent in recent years. In order to conceptualise climate change governance, it is utterly relevant to identify and analyse the interests and motivations of private participants, whilst also bearing in mind any conflicts and limitations that may affect their behaviour, willingness to cooperate and internal decision-making.

As well as the perspectives of the various stakeholders, the spatial dimension of climate change governance should be inspected more closely. Decisions made by the United Nations and inter-governmental politics are expected to be key to developing solutions to the problem of climate change. Nevertheless, local government has an impressive record in tackling climate change. Local initiatives can work as a testbed for assessing the feasibility of climate-related measures and can also offer new approaches for setting and implementing climate goals. Furthermore, in the field of climate adaptation, local administration has become a focal point as issues surrounding adaptation and the capacity to act are more easily met at a local level. Against this background, local and regional climate change governance appear worthy of further examination in order to develop the dialogue around mitigation and adaptation. It is a core task to identify and disseminate mechanisms of climate change governance that may assist in finding regional and local solutions for what is a global problem.

However, at present there is still a paucity of publications addressing these matters. Many books have been produced on general matters related to climate change, such as climate modelling, temperature variations, sea level rise, but, to date, very few publications have addressed the political, economic and social elements of climate change and their links with governance. This book will address this gap. Furthermore, a particular feature of this book is that it not only presents different perspectives on climate change governance, but it also

introduces theoretical approaches and brings these together with practical examples which show how main principles may be implemented in practice.

The book is divided into three main parts. Part I sets the stage and provides a theoretical and conceptual framework of climate change governance. Fröhlich and Knieling present an overview of existing governance approaches and concepts applicable to climate change. Based on the specific problem structure of climate change, i.e., its cross-boundary, multi-level, -sector, -actor and long-term nature, as well as the uncertainties surrounding it, they explore contours of climate change governance and discuss correlating policy and planning instruments. Termeer. Dewulf and Breeman shed light on the issue of climate change as a wicked policy problem. The authors review existing theories about resilience, responsiveness and revitalisation that are suitable for addressing wicked climate adaptation problems. They propose to exploit this theoretical multiplicity rather than to develop one integrated governance approach. Bruneniece and Klavins suggest a theoretical framework for policy design and decision-making practice supplemented with experiences from Latvian climate change policy. The analysis explores risks and benefits related to climate change and points out why a more systematic approach for addressing these topics is necessary. Brunnengräber deals with multi-level climate governance processes and structures. His contribution illustrates that climate change is characterised by considerable interest-led governance interdependencies. In this context, the author analyses five dimensions of climate governance and how they may counteract successful regulation on an international level. McCarney maps core risks for cities associated with climate change, such as extreme weather events and sea level rise. She shows how a set of indicators concerning these matters can help to build empowered decision-making and lead to more informed planning norms and practices, and more inclusive urban governance. Schröder and Walk concentrate on a specific actor by covering current and future roles of cooperatives as one possibility for providing innovative, collective approaches to local climate governance strategies. The article emphasises the importance of bottom-up strategies for a transition towards climate friendliness. Daim, Cowan, Wakeland, Fallah and Holahan present a conceptual model built on technical, organisational and personal perspectives, targeting an informed energy policy and the management of energy resources. Factors enabling better adoption by consumers and efficient development by organisations are evaluated with regard to potential technological improvements.

Part II contains case studies on climate change governance, in particular, policy-related and governmental approaches. *Al-Amin, Jaafar, Azam, Kari* and *Agil* describe Malaysian climate change experiences and obstacles to establishing a national policy on climate change. The study emphasises that sustainable, long-term economic policy requires a workable framework for climate change, and highlights the necessity of national initiatives for planning strategies to reduce vulnerabilities. *Davoudi* outlines the role of English spatial planning. Based on the key areas of energy supply, energy demand and adaptation, she provides a conceptual framework by mapping the most relevant related policy areas against the different forms of planning interventions, such as regulatory interventions or

strategic coordination. *Diaz* and *Hurlbert* evaluate institutional learning and water governance in both Chile and Canada, based on the findings of vulnerability assessments and interviews with related key stakeholders. They conclude that water governance cannot be left to private actors, and that government has an important role to play. *Obeng* and *Agyenim* analyse the institutional development approaches that may be adopted to enhance the capacity of developing countries to adapt to the consequences of climate change. The chapter dwells on experiences in Ghana to discuss national and local institutional reforms as well as international cooperation.

Examining climate adaptive planning at the local level, Rosenthal and Brechwald describe formal strategies that have developed for coping with the current problem of heat-related ailments in New York City and for reducing future impact. In particular, they discuss the policy-making process and the work of the NYC Climate Adaptation Task Force during their initial planning from 2008 through to the spring of 2010. Focusing on the goal of local energy autonomy, Radzi and Droege consider ways in which local communities can act through local government and public authorities. Based on three case studies, they identify factors that are fundamental to achieving common energy goals. These are: individuals organising themselves to adopt a lifestyle based on renewable energy, local authority and legislative frameworks fostering and supporting these efforts, community involvement, public-private partnership and powerful research evidence combined with a strong regional commitment. Against the background of the case studies presented in the different chapters, Stead's contribution examines the validity and function of best practice for urban policies on climate change and sustainability. On the basis of a survey of four European cities, his conclusions review evaluation techniques, transferability and the presentation of best practice. He suggests that, as an alternative to best practice, common principles, such as strengthening the multi-level governance of climate change, may be worthy of examination and testing.

Finally, Part III involves a set of case studies on climate change governance, with an emphasis on business-related and technical approaches. Karakosta, Doukas and Psarras focus on energy technology transfer in Kenya. The authors present a decision support methodological approach, which enhances the technological needs assessments already applied, as well as the results obtained from detailed stakeholders' assessments in Kenya. Jallow assesses the mechanisms that allow companies to manage and then report on their climate change activities and emissions. The chapter is a review of current processes in climate change management and reporting, and discusses options available to companies, particularly in Europe and North America. Ioannis, Konstantinos and Leal Filho explore the strategies adopted by a sample of Greek businesses in relation to climate change mitigation and adaptation issues, such as voluntary involvement, emission trading, technical solutions and carbon reduction management. The findings are based on an analysis of Corporate Social Responsibility (CSR) reports. Gil-Saura, Ruiz-Molina and Berenguer-Contrí present findings on the subject of environmentally friendly technologies in hotels. A description of the actions implemented by different Spanish governance institutions is provided. This is discussed in the context of tourism in Spain.

We would like to thank all authors for making their experiences available in these chapters and their willingness to share their ideas. The authors have, by documenting and sharing their knowledge, provided an important contribution towards the debate on climate change governance, a matter of great relevance to countries, regions and cities alike. We hope that providing this platform for the debate on climate change governance may contribute to a broader debate on these issues.

This book is meant to inform, inspire and engage not only members of the scientific community, but also local authorities and practitioners, in the debate on how the principles of climate change governance may be related to implementation in cities and regions as well as initiatives for businesses and individuals. We hope that this book will serve the purpose of documenting and disseminating current initiatives in climate change governance, and also pave the way for creative new ways of tackling climate change.

## Reference

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