

Book reviews

Adjudicating climate change: State, national, and international approaches

Edited by William C.G. Burns and Hari M. Osofsky

New York: Cambridge University Press, 2009, 399 pp. (incl. index),
ISBN 978-0-521-87970-5, \$US90.

Climate law is increasingly recognised as a field in its own right, albeit still one in its infancy. The scope of climate law and its underlying legal constructs thus remain unsettled, making the practice of climate law both exciting and challenging. *Adjudicating Climate Change: State, National, and International Approaches* reflects this dual nature of climate law. Its treatment of the topic of climate litigation – a sub-category of climate law concerned with the use of judicial and quasi-judicial processes to secure reductions in the emission of greenhouse gases – is infused with the enthusiasm and imaginativeness that pioneering lawyers bring to a novel area of legal endeavour. Accordingly, it is best read as a collection of innovative ideas, accompanied by illustrative case studies, of how climate litigation might be pursued in national or international courts, rather than as a ‘how-to’ guide for potential climate litigants.

As the sub-title indicates, the book casts a wide net in considering potential ways of bringing climate litigation. Its three parts include case studies focusing on different levels of governance from the ‘sub-national’ (e.g. litigation at the state or local level), to the national, and supra-national. Most chapters contain extensive footnotes that will allow readers easily to locate references to cases or other legal developments of interest. The authors of the component chapters seem to have assumed an American audience given the frequent reference back to law in the United States as a comparator, and the lack of detailed engagement (beyond a brief overview in the introductory chapter) of the implications of the emissions reduction requirements of the Kyoto Protocol for domestic climate litigation. Notwithstanding those limitations, the diverse subject matter and jurisdictions considered should give the chapters broader appeal. For example, the part of the book dealing with subnational case studies includes chapters surveying Australian and New Zealand case law, as well as legal developments in cities and states of the United States. Similarly, part two of the book on national case studies includes a fascinating chapter on litigation to halt the practice of gas flaring by oil companies in Nigeria (chapter 8).

For those already familiar with some of the cases dealt with – such as the landmark *Massachusetts v. EPA* decision of the United States Supreme Court or the tortious litigation in *California v.*

General Motors, the content of the case studies may already be very familiar material. The present reviewer certainly found this to be the case in reading the chapter on Australian litigation concerning the greenhouse emissions from coal mining, which covered well-known Australian cases such as the *Hazelwood* and *Anvil Hill* decisions. Nonetheless, this chapter broadened the analysis beyond a repetition of the facts and findings of the cases to consider wider lessons of these cases as a 'harbinger' of future climate litigation.

Part three of the book is dedicated to supranational case studies, including the filing of petitions under the World Heritage Convention to list certain sites as endangered due to climate change, the use of human rights tribunals to address climate change impacts (as occurred in the Inuit Arctic petition to the Inter-American Commission of Human Rights), bringing climate change claims pursuant to the accountability mechanisms of global financial institutions such as the World Bank, or litigating climate-based claims in international courts such as the International Tribunal for the Law of the Sea or the International Court of Justice. This part of the book is the most ambitious in that the authors, for the most part, are exploring the *possibility* of using global legal mechanisms to address climate harms rather than existing case law. Some of the ideas put forward may be pursued successfully in international litigation, others may not. However, as Strauss points out in his chapter on the potential for climate litigation before the International Court of Justice (chapter 15), the exercise of brainstorming global litigation alternatives is nonetheless worthwhile: 'While domestic courts are still far and away the primary formal institutions of dispute resolution in the world, they are in certain ways ill suited to address the global nature of the climate change problem' (pp. 335-6). Global fora may be better able to tackle the cumulative nature of the climate change problem than domestic courts that are constrained by doctrines of territorial sovereignty and non-interference in the concerns of other countries.

Characteristic of an edited collection written by numerous authors from diverse backgrounds – including not only academic lawyers but also lawyers in environmental NGOs who have often been at the forefront of climate case law – the chapters of the book each have their own style and theoretical approach. This allows the authors to cover an enormous array of topics and theories, from the role of biodiversity legislation in protecting against climate change (chapter 7), to the capacity to litigate climate change issues employing traditional common law remedies such as nuisance, negligence, and products liability (chapter 9), or the implications of such climate litigation for liability insurance (chapter 10). Some of the theoretical frameworks employed were more credible than others – for instance, Osofsky's discussion of the application of concepts of scale from geography and science to legal settings (chapters 6 and 17; see also her article in this issue of *Climate Law*) is very helpful in understanding the 'multi-scalar' phenomenon of climate change; less clear were the linkages claimed in another chapter between local American cities' climate change responses and international relations theory. Of course, the benefit of the book's eclectic approach is that it offers a richness of different perspectives on climate litigation capable of accommodating the different views of what is likely to be a diverse readership.

What is lost in the variety of views, however, is a clear theoretical framework for understanding the phenomenon of climate litigation: its role, its basis, and its challenges. Individual views

on such questions are certainly offered, as in Hunter's chapter on the implications of climate litigation for international climate law and policy (chapter 16), as well as Osofsky's contributions on the important question of the appropriate scale at which to regulate climate change and the role of litigation in establishing this. Beyond these perspectives no particular theme to the book or underlying narrative connecting all the cases was detectable, other than the desire to give a broad and inclusive picture of the state of global climate litigation. Theoretical clarity may be too much to expect at this early stage of climate litigation and climate law more broadly, with the field in a state of flux. It will be for others in the climate law field to fill in the theoretical gaps and put some of the collection's innovative proposals to the test of practice. In taking on that task, *Adjudicating Climate Change* will undoubtedly provide climate lawyers – both domestic and international – with an excellent foundation for exploring the potential of climate litigation to aid in the reduction of greenhouse emissions.

Dr Jacqueline Peel
Associate Professor of Law
Melbourne Law School
University of Melbourne
Australia

Caching the carbon: The politics and policy of carbon capture and storage

Edited by James Meadowcroft and Oluf Langhelle

Cheltenham, UK: Edward Elgar, 2009, 300 pp. (incl. index),
ISBN 978-1-84844-412-6, hb £79.95.

Carbon Capture and Storage technology is becoming increasingly prominent within international environmental discourse, primarily due to its potential to mitigate the adverse affects of human-induced climate change. The volume under review navigates the rise of CCS within the political arena, exploring the contrasts, similarities, and complexities of different policy responses that have developed to date in various jurisdictional contexts.

The volume centres on eight case studies taken from a range of OECD jurisdictions. The focus is exclusively on developed nations that are both major producers and exporters of fossil fuels, or those that have substantial remaining reserves and are fairly reliant on them for electricity generation. There are seven country-based case studies: Australia, Canada, Germany, the Netherlands, Norway, the UK, and the US. The contributing authors are predominantly academics from the social sciences or environmental studies. The individual case studies are well referenced and the text is written in a clear and accessible style. The studies are fairly detailed in mapping out the progression of CCS within the political discourse of each country, exploring both governmental and non-governmental activity through a technology-innovation perspective.

The array of case studies showcases the differing and sometimes contradictory assessments of CCS, with some authors more optimistic than others about its potential to mitigate climate change.

The eighth case study, by Dag Harald Claes and Paal Frisvold, covers the European Union as a whole, including the CCS policy developments and their implications in the three EU member states already included as case studies in the volume (Germany, the Netherlands, and the UK), and takes into account the “essential role this emergent political unit is now playing in the international negotiations around climate change” (pp. 18-19). The international climate change process forms an important backdrop to the entire volume, particularly in its selection of case studies, which, with the exception of the US, concern developed countries that have ratified the Kyoto Protocol. The volume was published prior to the UNFCCC’s 15th Conference of the Parties in Copenhagen. Considering the manner in which the Copenhagen Accord came to be drafted, it may be that the EU will no longer play such a significant role in global mitigation strategies.

The strength of the volume lies in its penultimate chapter, by Oluf Langhelle and James Meadowcroft, which is a reasonably comprehensive comparative analysis of the preceding eight case studies. The editors dissect the various energy sectors, comparing and analysing the several trends in greenhouse gas emissions, and highlighting areas where the implementation of CCS technology could have an impact. The objective is to shed light on four themes central to arguments about CCS: defining its relative weight within the range of abatement options; developing a nuanced assessment of risks and opportunities; balancing private and public interest; and assessing its potential role in transforming energy systems. The comparative analysis is placed within the context of current Kyoto commitments and post-Kyoto targets, allowing a clearer differentiation among the different types of role that CCS might assume in the future. For example, the comparative analysis is particularly effective in emphasizing the multiple political purposes that CCS could serve, whether as a solution to political dilemmas or as a creator of controversies.

An element of the CCS political dialogue missing from the volume under review is the prospect of deploying the technology in developing countries, and the related issues of technology transfer. The UNFCCC discussions regarding CCS have centred largely on its inclusion under the Clean Development Mechanism. Although the volume does mention the importance of the flexible mechanisms in helping developed countries meet their targets, it chooses to ignore the significant role that those countries have played in pushing CCS onto the CDM agenda. The seven OECD countries of the case studies are key members of the Umbrella Group or the European Union and have actively supported the consideration of CCS as a viable project option under the CDM. The CCS/CDM dialogue has been ongoing since 2005 and has loomed large in various UNFCCC fora (e.g. the SBSTA, CMP, AWG-KP, and AWG-LCA). As of COP 15, there has been deadlock about how to proceed with the issue. The volume’s failure to address the CCS/CDM aspect of the international negotiations leaves untreated what is likely to become one of the principal drivers of the deployment of CCS globally.

The non-inclusion of Japan as a case study is intriguing. Japan is an OECD country that has also been exploring the CCS technology chain (that is, the technologies of capture, transportation, and storage of CO₂), and has, alongside the states selected for this volume, openly supported CCS under the various negotiating bodies of the UNFCCC. Further, given the editors' focus on the impact that CCS could have on transforming the global energy system, the omission of crucial emerging economies such as China, India, and South Africa is something of an oddity, not least because all of them possess vast coal reserves with the potential for CCS deployment. As it stands, the volume has a rather 'Anglo-Saxon' outlook on the future of CCS and the impact of the technology on the global energy system. These minor criticisms notwithstanding, the volume is a timely and informative text for students and academics, as well as for practitioners within international organizations and governments.

Rudra Kapila

Scottish Centre for Carbon Storage (SCCS)

University of Edinburgh

Climate finance: Regulatory and funding strategies for climate change and global development

Edited by Richard B. Stewart, Benedict Kingsbury and Bryce Rudyk

New York and London: New York University Press, 2009, 323 pp. (incl. index), ISBN 978-08147-4138-2, US\$25.

The Copenhagen climate change negotiations in December 2009 were marked by levels of protest and demonstration unprecedented at earlier COPs, both from participants inside the proceedings and from groups outside it. One of the smaller demonstrations within the conference venue took the form of about a dozen placard-waving protesters, surrounded by a media scrum, who effectively blocked the passageway between the official-delegate and NGO sections of the venue. The group's chant was a variant on the familiar street-protesters' "*What do we want? When do we want it?*". But what the protesters wanted ("*Now!*") was something unlikely to be recognized by many on the streets of an average capital city that didn't happen to be hosting the international climate change negotiations: *climate finance*.

What does climate finance mean, and how could it be delivered? The book under review, published in the immediate run-up to Copenhagen, provides a much-needed contribution to understanding the term, and a practical guide to the mechanisms that could deliver the desired results. It brings together nearly forty contributors, many with outstanding international reputations in their fields.

As the subtitle implies, there is a strong development angle to the book. It focuses almost exclusively on the finance required to reduce greenhouse gas emissions in developing countries

over the next ten-to-twenty years (as opposed to the much larger amounts of capital required to make deep cuts in emissions in industrialized countries). As such, it is a pity that the closely related issue of how to finance climate change adaptation – which, as Luis Gomez-Echeverri points out (p. 167), is the priority for most developing countries – is only mentioned in passing. There is increasing convergence between adaptation and mitigation, evidenced for example in the Copenhagen Accord by the lumping together of all financial flows to developing countries. As such, the mechanisms and governance structures for financing mitigation will have an influence on, and be influenced by, the corresponding measures for adaptation. As the chairs of UNFCCC sub-committees are at pains to point out in their draft negotiation texts: “Nothing will be agreed until everything else is agreed.”

The book is divided into six parts. Part I provides an introductory overview from the editors, and succinct summaries of the science of climate change and its implications, and the amount of financing required to achieve the emission limits suggested by the science. Part I ends with a call by Dan Bodansky for states to be given more flexibility to define climate change commitments on their own terms, to help break the impasse between developed and developing countries at the international level. It is a sad reflection on the state of the negotiations, as well as a confirmation of the prescience of the book’s contributors, that this call remains as valid after Copenhagen as it was before.

Part II presents a range of possible financing mechanisms, including a reformed Clean Development Mechanism, sectoral approaches, mechanisms to reduce emissions from deforestation and forest degradation, as well as from agriculture and other land-use change more generally, linkages between national or regional emissions trading schemes, and credit-enhancement schemes to leverage private sector finance for technology deployment. Part III proceeds to the political challenge of formulating a ‘grand bargain’ on climate finance that might overcome historic distrust between developed and developing countries by formulating acceptable governance and mutual-conditionality arrangements. Part IV steps down from the global level to look at regional, national, and municipal climate change policies and their implications for the global climate-finance regime. Finally, Parts V and VI deal with legal and tax issues, such as the interaction between climate policy and the WTO, and the tax consequences of emissions trading schemes.

The book is clearly written with a policy-making (or policy-influencing) audience in mind. Articles are short and pithy (often just four-to-five pages long), and the editors have ensured that each article starts with a bullet-point summary of key points and is broken down into clear subsections. The style is thus not overly academic, and there is a minimum of referencing. Further-reading recommendations appear at the end of most chapters, but a consolidated bibliography would have been a useful addition.

The legal and tax sections of the book are a great strength (as we would expect, emanating as this does from a project of the Institute for International Law and Justice at the New York University School of Law), and set this work apart from others on the subject. For example, Mitchell A. Kane’s article tackles the vitally important question of ensuring that differences in

tax treatment of emission allowances (and abatement options) do not distort the overall efficiency of linked national or regional carbon markets, arguing cogently in favour of equalizing domestic tax treatment on the margin *within* the firm, rather than striving for harmonization of tax treatment *between* firms (pp. 300–4). The half-dozen articles on climate finance and WTO policy raise far more questions than they answer, highlighting the urgent need for further development of options and analysis in this area.

A compendium of this kind is almost inevitably somewhat fragmented; on the other hand, it covers a wider range of relevant issues than would commonly be possible in a monograph. The editors have done an excellent job in providing a logical framework for the various contributions, but some papers present a rather one-sided, at times prescriptive, view of the issues in question, which is not always balanced by an alternative view by other authors. Nevertheless, the book's principal value is in providing an outstanding compilation of succinct, policy-relevant, and up-to-date contributions from key thinkers in the field of climate finance. The fact that they do not always agree should not prevent this book, as a whole, from making a significant contribution towards political agreement on climate finance mechanisms, governance, and regulation.

Francisco Ascuí
Deputy Director
Centre for Business and Climate Change
University of Edinburgh Business School

Renewable energy sources: A chance to combat climate change

By Clarisse Frass-Ehrfeld

The Netherlands, Kluwer Law International, 2009, 610 pp. (incl. index),
ISBN 978-90-411-2870-6, hb US\$172.

This excellent and timely publication explains the legal framework of the renewable energy (RE) market in the European Union. It is divided into eight chapters. The first three provide an overview and background discussion on the subject of climate change and the legal and policy framework governing energy within the EU. Chapters 4 to 7 provide detailed discussions on the RE legal framework within the EU and its member states. Chapter 8 provides brief conclusions.

The first chapter serves as an introduction. Chapter 2 seeks to provide an overview of the international law and institutional framework under the UNFCCC and Kyoto Protocol, as well as brief highlights from the IPCC's Fourth Assessment Report. Frass-Ehrfeld's aim here is to set up the legal background and context of her book; however, it is perhaps the weakest part of the book, providing a simplistic outline of issues without touching on the international politics and tensions in the debate. It is also the only chapter that does not adequately reference sources.

Instead, it commences with a bulky footnote which reads like a bibliography. The lack of adequate referencing is particularly problematic in part 4 of the chapter, which, in the course of discussing actions by the EU and other countries, mixes up issues relating to the current status of negotiations with particular country agendas and with the author's own views (mostly based on the EU's position prior to the Copenhagen COP) on what each country should be doing. Without any indication or reference to the contentious nature of the debate at the international level, this chapter has limited value.

Chapter 3 provides an overview of the EU's energy policy and the key developments from the late 1990s onwards that shaped its approach to RE. With Chapter 4, the book embarks on a fairly comprehensive investigation of its core subject, RE. Its focus is on the different RE sources in the EU and the achievements and limitations in developing and exploiting energy from RE sources. The author discusses technical information regarding each RE source (such as statistical information regarding electricity generation, its contribution to the total energy supply within the EU, and its projected potential), as well as RE investment trends (both globally and within the EU).

Chapters 5, 6, and 7 are a valuable resource on the design of the RE legal and policy framework at the level of the EU and each of its member states, and the mix of government incentives, subsidies, and feed-in tariffs that have been designed to promote RE. Chapter 5 discusses the EU's state-aid policy and programmes for RE investments, the chapter following it focuses on national instruments at the level of each member state, and Chapter 7 explains the promotional schemes and feed-in tariffs that are in place in each of the states.

To make the various EU government programmes and schemes more easily understood, Frass-Ehrfeld first provides an overview of them and then proceeds to a more detailed discussion of the state schemes. The overview in Chapter 6 on the choice of policy instruments highlights the main features of instruments such as fixed-price systems, quota systems, cost-reduction instruments, feed-in tariffs, and tradable green certificates. The author comments on the main features, as well as the benefits and pitfalls, of each instrument. The discussion is not meant to critique each instrument; rather, it is a ready-reckoner on what those instruments seek to do, and their suitability for different types of investor. However, some of the author's statements in this part are cryptic, and not adequately referenced, which leaves us with several unanswered questions. For example, in her discussion of quota systems the author states that "according to experts and empirical studies, quota systems are producing less RE deployment at higher costs than feed-in tariffs" (p. 265); but no studies are cited.

A particularly informative section is part 2.3 of Chapter 6 which highlights the findings and discussions in recent EU papers and reports on effectiveness and efficiency of different policy instruments from the perspective of investors. This section highlights investors' concerns as well as administrative bottlenecks in the EU states. The chapter also contains a good discussion on the various options for designing feed-in tariffs, including recommendations from a report on this matter (p. 269); however, this report too has not been footnoted, nor has it been cited in the book's bibliography.

Chapter 7, entitled “Promotion Schemes and Feed-In Tariffs for Renewable Energy Sources within the EU-27: A Detailed Country Analysis”, explains the main legislative and policy instruments, fiscal incentives, investment subsidies, and government allocation of funds for RE sources in the EU states, as well as the experience with implementing such instruments. It presents data on the share of RE sources in the energy mix of each state. Table 7.7 provides a tabular overview of the main RE support schemes in states, and a short commentary on the status of implementation of each scheme. Another table (7.8) provides a snapshot of the level and duration of support for RE technologies and sources in each of the states.

Frass-Ehrfeld emphasizes the role that strong political and economic support has played in RE investments in the EU. She also provides interesting insights into the chequered developments in this regard, with EU state governments initially hesitant to internalize environmental and social costs of conventional (non-RE) sources of energy. Although Directive 2001/77/EC encouraged the development of national policies to support RE sources, it was only in 2007 that the EU specified national RE targets for its member states. The EU’s experience in the actual enforcement and implementation of these obligations is therefore still in its infancy. Nevertheless, the different mechanisms of support for RE sources provide a menu of interesting options.

The book does not position itself as a critical discussion of the viability and sustainability, or even effectiveness, of each of the schemes. Its simple mandate is to draw together information on what the EU is doing, and on the range of instruments its member states are using, to promote RE sources. It documents the experiences of implementation and the pitfalls in some of the schemes. The author recognizes the challenges of effective implementation of legal instruments for RE and the need to provide viable fiscal incentives, especially in view of the economic crisis.

Overall the book is a mine of information, and helpfully guides readers through the EU and state legislative frameworks for RE. A richly documented bibliography caps it off. The book should prove to be a valuable resource, not just within the EU, but for practitioners and policy-makers in other countries that are seeking to put in place regulatory frameworks to incentivize and promote RE sources.

Anuradha R.V.

Partner, Clarus Law Associates

New Delhi

India