

Climate Change in Asia

Perspectives on the Future Climate Regime

Edited by
Yasuko Kameyama, Agus P. Sari,
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1

Introduction: Climate change and sustainable development in Asia

Agus P. Sari

A significant portion of the deltaic country of Bangladesh gets flooded on a yearly basis. About 21 per cent of the population, or 30 million out of the 130 million Bangladeshis, live in coastal areas vulnerable to sea-level rise. At the same time, 36 per cent of Bangladeshis live on less than one dollar a day. What will happen in Bangladesh when climate change occurs – i.e. when global warming increases the average temperature of the earth by more than 2°C and sea levels will rise about one metre – is clearly devastating. As Alam argues in this book, it is recognized that Bangladesh is one of the countries most vulnerable to climate change. Sea-level rise and coastal inundation are a very probable picture. In contrast to developed countries, where the debate focuses on reduction of greenhouse gases, the main concern in Bangladesh is to reduce the adverse impacts of climate change and variability.

But preventing these impacts cannot be achieved by Bangladesh alone. Indeed, the world requires massive and coordinated global efforts through diplomacy, projects and financing to prevent vulnerable countries like Bangladesh and the communities living in them from feeling the worst irreversible impacts of climate change. The world also requires the rich industrialized countries – those largely responsible for causing climate change in the first place – to bear most of the “common but differentiated responsibilities”.

The Kyoto Protocol, initiated at the Third Conference of the Parties (COP3) to the UN Framework Convention on Climate Change (UNFCCC) in 1997, laid the groundwork for what the world needed

to do. It may not be complete, but it is an essential first step. First, it commits the rich industrialized countries (listed under Annex I of the UNFCCC and Annex B of the Kyoto Protocol) to an aggregated emission reduction target of 5 per cent below their 1990 levels by 2008–2012, the so-called “first commitment period”. Second, it allows for breakthrough flexibility systems in which these countries can cooperate with others, including developing countries, to achieve their targets through the clean development mechanism (CDM). Critics, however, point out that the protocol is inadequate because the United States, the world’s largest emitter of climate-change-inducing greenhouse gases, is not on board, and because it excludes key developing countries from committing to limit their future emissions.

The first commitment period of the Kyoto Protocol will expire in 2012, and negotiation continues over the overall global emissions limitation and reduction commitments in the second commitment period. Questions remain unanswered as to how to get the United States back into the treaty and how to include key developing countries.

Climate change: From science to politics

The global climate is changing. The Intergovernmental Panel on Climate Change (IPCC) in its First Assessment Report in 1990 stated the need to reduce current emissions of climate-change-causing greenhouse gases (GHGs) by 60–80 per cent if concentrations are to be kept at today’s level (IPCC, 1990). The Second, Third and most recent Fourth Assessments subsequently show stronger links between human-induced emissions and increased global temperature and changing climate (IPCC, 1995, 2001). The last decade of the twentieth century was the warmest ever, and the first decade of the twenty-first century is expected to be hotter still. All these changes will result in devastating impacts with a high socio-economic toll. Global increases in temperature will result in net economic losses in many countries at all magnitudes of warming. Developing countries, especially poor ones such as Bangladesh, are considered to be those most vulnerable to the changes and their associated impacts.

The new understanding of the link between human-induced emissions of GHGs and climate change spurred the formation of a negotiating committee for a framework convention on climate change by the UN General Assembly. The work of the negotiating committee led to the signing of the UNFCCC at the Earth Summit in Rio de Janeiro, Brazil, in 1992, and, following the entry into force of the convention, the adoption of the Kyoto Protocol in 1997 in Kyoto, Japan. The ultimate objective of

the UNFCCC was “to achieve . . . stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system”, as stated in Article 2. The Kyoto Protocol governs the quantitative emissions reduction commitments of the industrialized countries (listed under Annex I of the UNFCCC or Annex B of the Kyoto Protocol, thus referred to as either “Annex I” or “Annex B” countries).

Short of the global reduction of 60–80 per cent required by the IPCC to stabilize the climate system, the Kyoto Protocol requires only a reduction of 5 per cent from 1990 levels by 2008–2012. This reduction is to be differentiated among the Annex B countries, ranging from a reduction of 8 per cent collectively for the EU member countries, 7 per cent for the United States and 6 per cent for Japan to stabilization for Russia and an increase of 8 and 10 per cent in Australia and Iceland, respectively. Developing countries, due to their development needs, are allowed to increase their emissions and, up to 2012, are not committed to quantitative emission reduction objectives. It is obvious that deeper cuts are needed globally to achieve the ultimate goal of the UNFCCC to protect the climate system.

If nothing preventive is done, global emissions will continue to increase in future due to demographic change, social and economic development and the current rate and direction of technological change. Emissions from developing countries are increasing much more rapidly than those from industrialized countries. Between 1970 and 2000 global emissions increased on average by 1.9 per cent per year. While emissions from industrialized countries increased quite slowly at 0.7 per cent per year in that period, those from developing countries increased at a rather rapid pace of 4.8 per cent per year.¹ At the current pace, emissions from developing countries are expected to surpass those from industrialized countries within this decade or early next decade. The IPCC’s *Special Report on Emission Scenarios (SRES)* predicts total cumulative carbon emissions from all sources through 2100 ranging from about 770 billion tonnes of carbon to about 2,800 billion tonnes (IPCC, 2000).

But developing countries are not all in one big basket. On the contrary, differences among developing countries are possibly even more instructive than differences between developing and industrialized countries. The different characteristics may be based on the structure of their energy economies. For example, primary energy requirements depend on factors such as level of industrialization, economic structure (for example, the existence of energy-intensive industries), level of motorization, average climate (thus the needs for space heating or cooling) and endowment of energy resources domestically (Winkler, Spalding-Fecher and Tyani, 2002).

Article 3 of the UNFCCC stipulates that protection of the climate system should be based on “equity and in accordance with their common but differentiated responsibilities and respective capabilities”. Furthermore, “the developed country Parties should take the lead”. Both the UNFCCC and the Kyoto Protocol operationalize these “common but differentiated responsibilities” based on an arbitrary list in Annex I (UNFCCC) and Annex B (Kyoto Protocol) which defines the term “developed country Parties”.

It is immediately obvious that the current Kyoto Protocol is inadequate to achieve the ultimate objective of the UNFCCC to protect the climate system. While almost everybody agrees that global commitments are needed in the future, the path towards these is not at all well laid out. A number of possible future “architectures” have been brought into the discussion of global commitments and climate regimes beyond 2012. While a thorough assessment of these architectures is still needed, facilitation of a strategy for the political process to achieve global agreement is even more imperative.

The long-term insights of climate change

Where we are to go in the international regime to limit climate change is reasonably well known. Article 2 of the UNFCCC embodied its ultimate objective, which is “stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system”. Additionally, Article 2 states that “such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner”. The UNFCCC thus recognizes the importance of the nexus between sustainable (economic) development and climate protection.

We know that the effects arising from any increase in temperature beyond 2°C will be devastating, especially for poor and vulnerable countries such as Bangladesh. We also know that the risk of overshooting the 2°C threshold can be lowered significantly if and when we can keep the global atmospheric concentration of carbon dioxide, the most abundant GHG, lower than 450 parts per million (ppm) by volume. This is a level which many are already suggesting is unattainable. With today’s concentration at 380 ppm, the world is already committed to about 0.7°C increase in temperature (Hare and Meinshausen, 2004). In summary, the world needs a more aggressive second commitment period beyond 2012,

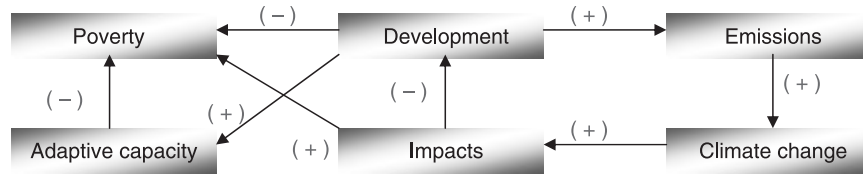


Figure 1.1 Correlation between climate change and poverty

in a form that is acceptable by both the United States and developing countries as well as by the proactive European Union.

The EU Council of Environment Ministers discussed the target for further reduction of emissions beyond 2012, in view of the general EU target of limiting temperature increase to no more than 2°C. It established the 2020 “aspiration” target (non-legally binding) for industrialized countries as 15–30 per cent reduction and the 2050 target as 60–80 per cent reduction from 1990 levels (Commission of the European Communities, 2007) (see chapter 3 in this volume).

Climate change and development: The policy nexus

There is a correlation between climate change and poverty: figure 1.1 shows the link. As the figure shows, climate change will have some impacts that will exacerbate poverty and hinder development; but development will reduce poverty and increase adaptive capacity. At the same time, development will lead to emissions of GHGs that will eventually cause climate change.

The key hypothesis offered in this book is that poverty reduction is the utmost goal of all policy in developing countries. This hypothesis was found to hold true in many diplomatic statements by developing countries at the international negotiation sessions, and is ingrained in Article 3.4 of the UNFCCC: “the Parties have a right to, and should, promote sustainable development”. Policy development and international negotiation on climate change, therefore, cannot be isolated from the larger and more pressing issue of poverty reduction. The process towards “buy-ins” by developing countries of the importance of climate protection thus depends on how much it helps them in their poverty reduction efforts, i.e. their economic development.

As such, the Millennium Development Goals (MDGs) provide a simple, politically acceptable and sufficiently quantitative definition of “development”. These MDGs are adopted by countries around the world and are applied in their respective sustainable development and poverty

reduction strategies. The most prominent MDG is probably the one that aims to halve the proportion of people living in poverty by 2015. Currently, about 300–420 million people worldwide are conservatively estimated to be chronically poor; this number will grow as the population increases, even if the MDG is met, and more than half of the estimated 900 million poor people in 2015 will be living in chronic poverty (Chronic Poverty Research Centre, 2004). Most of these people live in South Asia and sub-Saharan Africa.

The occurrence of climate change will exacerbate the already grim portrait of poverty in the world. Reduction of poverty requires access to productive natural resources. Climate change will increase concentration of natural resources in fewer regions, leading to possible increased conflict. Instead of reversing the trend in the incidence of malaria, as targeted by the MDGs, climate change may even increase it. Climate change will also increase the number of people who die or are internally displaced due to disasters and conflicts. Between 1994 and 2003 about 12 million out of the 13 million deaths in large-scale conflicts were in sub-Saharan Africa, Western Asia and Southern Asia. These regions are also home to three-quarters of the world's 37 million refugees and displaced persons, as well as being the areas where the number of people suffering from hunger is growing.

Over the same period, 1994–2003, more than 600,000 died in natural disasters, with nearly three-quarters of these deaths in East and South Asia. In 2004 the Asian tsunami alone killed some hundreds of thousands of people, the majority of whom were Indonesians.

About 350–500 million people are affected by malaria every year, as it is endemic in many of the world's poorest countries; 90 per cent of about 1 million malaria deaths every year occur in sub-Saharan Africa, where more than 2,000 children die every day from malaria.

Table 1.1 shows the linkages between the MDGs and the issues surrounding mitigation of and adaptation to climate change.

The research agenda

The research represented in this volume is an attempt to answer the question “How do we get there from here?” It is a question about the journey, not the destination. It is, in summary, a “process” question, not an “architecture” one. The strategic objectives of the research project are as follows.

- To increase the capacity of developing countries in dealing with future institutional challenges of climate change beyond the Kyoto Protocol and the UNFCCC.

Table 1.1 Millennium Development Goals and their overlaps with climate change issues

Millennium Development Goal	Linkages with climate change	
	Mitigation	Adaptation
To halve, between 1990 and 2015, the proportion of the world's population whose income is below US\$1 a day	Expanded access to energy services and, to some extent, agroforestry can lead to increased income for beneficiaries Expanded access to energy services may lead to increased emissions	High costs of impacts of climate change will offset developmental progress Impacts will reduce resilience and adaptive capacity of communities
To halve, between 1990 and 2015, the proportion of people who suffer from hunger	Expanding access to energy services and agroforestry increases food productivity Expanded access to energy services may lead to increased emissions	Changes in temperature and hydrological cycle will reduce food security Impacts are more severe in places where hunger is already a problem, such as sub-Saharan Africa
To ensure that, by 2015, children everywhere will be able to complete a full course of primary schooling	Access to energy services allows for development of more schools Energy access allows children to have adequate lighting during the evening studying Expanded access to energy services may lead to increased emissions	
To ensure that girls and boys have equal access to primary and secondary education, preferably by 2005, and to all levels of education no later than 2015	Increased access to modern energy services allows women and children to have more time for education rather than gathering fuelwood Access to modern energy services reduces exposure to high levels of indoor pollution caused by dirty energy systems	
To reduce by two-thirds, between 1990 and 2015, the mortality rate for children under the age of five	Expanded access to energy services will allow better health services for children Expanded access to energy services may lead to increased emissions	Impacts of climate change will increase mortality rate for children

Table 1.1 (cont.)

Millennium Development Goal	Linkages with climate change	
	Mitigation	Adaptation
To reduce by three-quarters, between 1990 and 2015, the rate of maternal mortality	Expanded access to energy services will allow better health services for pregnant women Expanded access to energy services may lead to increased emissions	Impacts of climate change will increase mortality rate for pregnant women
To reduce the prevalence of HIV/AIDS, malaria and other major diseases	Expanded access to energy services will allow better health services overall, including in rural areas, and better preventive measures Expanded access to energy services may lead to increased emissions	Impacts of climate change, especially increased temperature and changes in hydrological cycles, will increase incidences of malaria, dengue fever and diarrhoea, among other diseases
To stop the unsustainable exploitation of natural resources	Mitigating climate change can reduce unsustainable exploitation of natural resources and increase access to renewable resources	Impacts of climate change will reduce capacity to access renewable resources

- To foster developing countries in being more proactive in the discussions on the future global climate regime.
- To develop a climate of trust, understanding and good faith to facilitate the commencement of the crucial negotiations on the “beyond 2012” institutional challenge on climate change.

The first objective is about increased quality of information exchanged and produced in Asia and the Pacific. This objective is to be achieved through work-stream 1: research by Asian and Pacific institutions. The second objective is about exchanging views and building trust. This will be achieved through work-stream 2: a bottom-up process from national dialogues to regional workshops. The third strategic objective is about increasing the quantity and quality of information disseminated by Asia and the Pacific to the rest of the world. This is to be achieved by work-stream 3: publications, including a website, occasional short policy articles, articles in other key publications and two reports released at the first and second Conferences of the Parties to the Convention serving as

the Meeting of the Parties to the Kyoto Protocol (COP11 and COP/MOP1, and COP12 and COP/MOP2) in 2005 and 2006, respectively.

The operational goals of the project, those that are also to be achieved while undertaking the research activities, are as follows.

- To increase the intensity and quality of information among the developing (“Southern”) countries with regard to the future global climate change regime.
- To provide a non-negotiating, trust-building forum for developing and industrialized countries in the Asia-Pacific region to discuss the relevant issues, with global commitments and developing country participation in their own developmental terms in the pursuit of an increased “climate of trust” among the negotiating parties.
- To manage the information dissemination and communicate these views strategically to the rest of the world.

Contributors to this volume were asked to respond to a list of questions, shown in table 1.2. By answering these questions, they were able to build the capacity in their respective countries to respond to climate change regime-building. At the same time, we were able to make comparisons between countries in the Asian region to find commonalities and differences in responding to climate change.

Structure of the book

This book consists of four parts.

The first part (chapters 1–3) introduces basic debates concerning the climate change regime, which can be considered as fundamental, overall pictures of what this problem is all about. Chapter 2 reviews various proposals on what is to be done after the first commitment period of the Kyoto Protocol is over. Chapter 3 describes a recent study on the long-term goal of the climate change regime, including the volume of emissions which will be allowed in the future.

The second section (chapters 4–10) is the outcome of work-stream 1. The research series consists of a number of country studies, namely Bangladesh, China, India, Indonesia, Korea, Japan and Thailand. In addition to providing insights on the horizontal interplay between institutions domestically, the country studies reveal the vertical interplay between local and national institutions and between national and international ones. The researcher in Bangladesh focused on the issue of impacts and adaptation, whereas those in Indonesia and Thailand concentrated on potential climate change mitigation. The researcher in China focused on technology transfer. Japan is included in the list to provide insights on the institutional interplay in an industrial (Annex I) country.

Table 1.2 List of research themes and questions

Theme	Research questions
A. Review of existing situation	
I. On poverty reduction and sustainable development policy	<ol style="list-style-type: none"> 1. Tell us in summary about your country, its socio-economic situation and the main characteristics of its politics. 2. What are the key characteristics of the policy-making process in your country? 3. What are the key characteristics of poverty reduction and sustainable development policies in your country? Does your country have a poverty reduction strategy paper (PRSP)? Does your country have nation-specific Millennium Development Goals? What are their key characteristics? What are your comments on them? 4. Who are the key players in developing these policies? Who are the strongest, and who are the weakest? How strongly are they related to each other? What is their “larger” agenda?
II. On links between local/project/“field reality” levels and national policy	<ol style="list-style-type: none"> 5. What is the reality – how effective is the implementation of national policies at the local level? How different is the reality from the “on paper” policy? Why does it happen the way it does – what causes the gaps? What are your comments on this? 6. Are local interests and aspirations represented in national strategy development? If yes, how? If not, why?
III. On links between national policy and international diplomatic positions	<ol style="list-style-type: none"> 7. How active is your country in international agreements on sustainable development? What is the extent of its participation? In which international agreements on poverty reduction and sustainable development does your country participate? 8. What are the positions in these agreements? Why? 9. How are diplomatic positions developed at the national level? How flexible are the diplomats/negotiators in interpreting these positions at negotiating forums? Who are the key players in the negotiation? Which is the “leading institution” in these negotiations? Why? 10. Are there conflicts and gaps between national strategy and diplomatic positions? How do they happen? Why? What are your comments?

Table 1.2 (cont.)

Theme	Research questions
IV. On national climate change policy	<ol style="list-style-type: none"> <li data-bbox="678 464 1230 596">11. Tell us in summary about your country's situation with regard to climate change: its level of emissions, per capita growth, vulnerability to impacts, reliance on climate-change-inducing economic activities, etc. <li data-bbox="678 596 1230 751">12. What are the key characteristics of environmental and climate policy-making processes in your country? What is the key institutional aspect of climate policy development in your country? What are your comments on them? <li data-bbox="678 751 1230 907">13. What is the key climate change issue that is particularly prominent in your country? What could the "local version" of this issue be? What prominent developmental issues may overlap greatly with this prominent climate change issue? <li data-bbox="678 907 1230 1016">14. Who are the key players in developing climate policies? Who are the strongest, and who are the weakest? How strongly are they related to each other? What is their "larger" agenda?
V. On links between local/project/"field reality" levels and national policy	<ol style="list-style-type: none"> <li data-bbox="678 1031 1230 1186">15. What is the reality – how effective is the implementation of climate policies at the local level? How different is the reality from the "on paper" policy? Why does it happen the way it does – what causes the gaps? What are your comments on this? <li data-bbox="678 1186 1230 1268">16. Are local interests and aspirations represented in national strategy development? If yes, how? If not, why?
VI. On links between national policy and international diplomatic positions	<ol style="list-style-type: none"> <li data-bbox="678 1283 1245 1415">17. How active is your country in the climate change agreements (Kyoto Protocol, UNFCCC, etc.)? What is the extent of its participation? In which other international environmental agreements does your country participate? <li data-bbox="678 1415 1245 1467">18. What are the positions in these agreements? Why? <li data-bbox="678 1467 1245 1646">19. How are diplomatic positions on climate change developed at the national level? How flexible are the diplomats/negotiators in interpreting these positions at negotiating forums? Who are the key players in the negotiations? Which is the "leading institution" in these negotiations? Why? <li data-bbox="678 1646 1245 1726">20. Are there conflicts and gaps between national strategy and diplomatic positions? How do they happen? Why? What are your comments?

Table 1.2 (cont.)

Theme	Research questions
VII. On links between poverty reduction and climate change policy arenas	<p>21. Domestically, what is the nature of interaction between “institutions” dealing with poverty reduction and sustainable development and those dealing with climate change? What would be the key “areas of overlap” between the two issue areas?</p> <p>22. At the local/implementation levels, what is the nature of interaction between local institutions dealing with poverty and development and those dealing with climate change? At the NGO level? At the community level?</p>
VIII. On “beyond 2012”	<p>23. What kinds of proposals currently exist on “beyond 2012”? How are they different from one another? What are the commonalities of the proposals?</p> <p>24. Have there been any discussions on “beyond 2012” issues, either directly or indirectly? Who initiated the discussions? Where is the centre of knowledge on these issues? What is the content of the discussions?</p> <p>25. Have institutions dealing with poverty reduction and sustainable development been involved in the discussions on “beyond 2012”? What are their likely positions?</p> <p>26. Which proposal is preferable for your country or for the Asia-Pacific region? Which proposal should be avoided? What are the pros and cons of those proposals?</p> <p>27. Are countries technically capable of implementing a certain proposal? For instance, non-existence of emission data may be a hurdle in implementing cap-and-trade types of proposals.</p> <p>28. What are the underlying assumptions that are required in order for the proposals to be agreed by your country? By developing countries? By all countries?</p>
IX. On linking climate change policy with developmental policy	<p>29. What institutions are influencing the shaping of your country’s poverty reduction and developmental policies? What institutions can be used to influence these influential institutions?</p> <p>30. Which (Annex I) countries do you think are influential in “shaping” your developmental policies and trajectories?</p>

Table 1.2 (cont.)

Theme	Research questions
B. On process	
X. On the process to start participation in discussions on “beyond 2012”	<ol style="list-style-type: none"> 31. What is the best way to link climate change policy with developmental policy in your country? Why? Some elaboration here will be very useful. 32. What processes do you think are best to link different levels (local, national, international) of poverty reduction policy? Of climate change policy? 33. What can ensure the effective implementation of national policy at the local or project levels? 34. What can ensure the effective channelling of local and community interests and appreciations in the national policy development process? 35. How has the current process for dealing with the issue of climate regime “beyond 2012” been from your country’s point of view? What can be made better? 36. What kind of process that has been experienced is deemed comfortable for your country in participating? How applicable is this experience in starting the process towards developing the “beyond 2012” regime? Why? Comments? 37. After you have reviewed the current proposals for the architecture of the climate regime “beyond 2012”, what are your comments on them from your country’s perspective? Do you think they are applicable to and agreeable by your country? How can we achieve agreement? What are the prerequisites? What are the imperatives? What are the caveats? 38. What is your bargaining power in international negotiations? Will there be any groups of countries that may share common interests or concerns? What are the incentives for your country to participate in the future climate regime?

In the country studies, the researchers first carried out a review of the existing policy-making institutional interplay of their respective countries on poverty reduction, sustainable development and climate change. The interplay includes the links between local, project or “field” reality and national policies, and between these national policies and international diplomacy. Among key issues reviewed are the World Bank-led poverty

reduction strategy paper (PRSP), the adoption of the MDGs and the major players and their interactions in these policies.

The third part (chapters 11–15) is the outcome of work-stream 2. Country case studies are the basis of this section. Here, major cross-cutting issues that are significant for Asian countries are sought. Themes such as the architecture of options for the future regime, technology transfer, adaptation, the CDM and trade are discussed from an Asian perspective.

The final part (chapter 16) is the conclusion. What are the key messages derived from the studies introduced in this volume? What can be done in future to mitigate climate change while pursuing sustainable development? How can we get “there” at the domestic level, and how can we get “there” at regional and global levels?

This volume has put together the main findings of the two-year study. Meanwhile, negotiation on future actions on climate change beyond 2012 has just started, with decisions adopted at COP11 and COP/MOP1 held in Montreal, Canada, in December 2005. The world is evolving. All the countries in Asia are faced with this reality. This study will continue to participate in domestic and regional climate policy-making, building capacity in each country to respond to climate change while building its own capacity to analyse various climate change regimes.

Note

1. Data for calculating this are taken from the CDIAC (Carbon Dioxide Information Analysis Center, <http://cdiac.ornl.gov/>).

REFERENCES

- Chronic Poverty Research Centre (2004) *The Chronic Poverty Report: 2004–5*, Manchester: CPRC.
- Commission of the European Communities (2007) “Communication from the Commission to the European Council and the European Parliament: An Energy Policy for Europe”, Brussels, 10 January, COM(2007)1 final.
- Hare, Bill and Malte Meinshausen (2004) “How Much Warming Are We Committed To and How Much Can Be Avoided?”, PIK Report No. 93, Impact Centre, Potsdam Institute, Potsdam.
- Intergovernmental Panel on Climate Change (IPCC) (1990) *Scientific Assessment of Climate Change – Report of Working Group I*, Cambridge: Cambridge University Press.
- (1995) *IPCC Second Assessment – Climate Change 1995*, Cambridge: Cambridge University Press.

- (2000) *IPCC Special Report on Emissions Scenarios*, Cambridge: Cambridge University Press.
- (2001) *Climate Change 2001: The Scientific Basis*, Cambridge: Cambridge University Press.
- Winkler, Harald, Randall Spalding-Fecher and Lwazikazi Tyani (2002) “Comparing Developing Countries under Potential Carbon Allocation Schemes”, *Climate Policy* 2: 303–318.

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Looking beyond the Kyoto Protocol's first containment period, an intense and growing international debate over the future climate change regime has emerged. Countries in Asia have particularly high stakes in this regime given the region's high population, growing greenhouse gas emissions, burgeoning economies and vulnerabilities to the impact of climate change. Limited capacity, however, has hampered the participation of many Asian countries in the international debate.

Climate Change in Asia: Perspectives on the Future Climate Regime is the result of a two-year study of domestic institutional processes in Asia to address climate change issues, national circumstances that impede countries from fully participating in the international debate and elements of a plausible climate regime from an Asian perspective. The book serves to identify the institutional dimensions of climate change and, importantly, the linkages between climate change and sustainable development. Finally, attention is given to the diversity of the Asian region as well as to the many commonalities that exist among the region's countries.

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