

Nur Azha Putra
Eulalia Han *Editors*

Governments' Responses to Climate Change: Selected Examples From Asia Pacific



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Preface

This volume is a compilation of selected papers presented at a conference on *Policy Responses to Climate Change and Energy Security Post-Cancún: Implications for the Asia-Pacific Region's Energy Security*. The conference, which was held in March 2011 in Singapore, was organised by the Energy Studies Institute (ESI) at the National University of Singapore (NUS), Singapore.

The volume was conceptualised against the backgrounds of Asia's economic growth—which has sparked a fresh focus on the region's, and particularly China's, energy demand and consumption—and renewed vigour to address environmental issues amid the impasse in the international climate change regime. While developed countries have begun to embrace the importance of balancing the energy trilemma, namely energy security, economic competitiveness and environment sustainability, several developing countries in Asia are still reluctant to jeopardise their economic growths in the interest of mitigating climate change. Nevertheless, there are Asian states that are committed to reducing the impact of their growing economies on the environment. This volume therefore looks at the response of such governments with the intent of highlighting their strategies, so that it can serve as a model for other states.

The case studies selected in this volume represent some of the more influential countries in the region in terms of their rising prominence in world politics and the global economy. Understanding governments' responses to climate change in China, India, Indonesia and Singapore would provide an adequate overview of developments in Asia from the perspective of varying political, social and economic systems.

The introductory chapter by Nur Azha Putra and Eulalia Han, “Governments' Response to Climate Change: Issues, Challenges and Opportunities”, discusses the conundrum governments in Asia face in delivering sustained economic growth while adopting policies that will help to mitigate climate change. The [Chap. 1](#) seeks to highlight issues of contention in the climate change rhetoric, especially the disconnect that exists between government narratives and their policies. It also touches upon the opportunities presently available for multilateral cooperation in Asia, especially in addressing climate change.

In [Chap. 2](#), “Engaging Emerging Countries: Implications of China's Major Shifts in Climate Policy”, Gang He presents an overview of how China has integrated clean energy in its long-term goals of economic progress and engage

emerging economies in global climate change efforts. His chapter articulates China's commitment to climate change and public health, and emphasises that international cooperation is fundamental to effectively address the non-traditional security threats facing states today. The Author also points out China's ambitions to be a world leader in clean energy and, perhaps more importantly, the implications for global climate change initiatives if China is able to progress towards a low-carbon economy while sustaining its economic growth.

In **Chap. 3**, "India's Efforts to Maintain and Enhance Energy Security While Reducing Greenhouse Gas Emissions", Harbans L. Bajaj highlights India's efforts in clean coal technology, nuclear energy and energy efficiency. The Author concludes that the main challenge for India, one of the world's fastest growing economies, lies in achieving its energy security and reducing its greenhouse gas emissions while improving the socio-economic condition of its citizens, especially for those who live below the national poverty line. As India is still largely dependent on coal to meet its rising energy demand, the country's commitment to address climate change through the successful implementation of clean technology and increasing the share of renewables in its energy mix will be crucial if it is to achieve its goals.

In **Chap. 4**, "Climate Change and Energy Security Post-Cancún: The Indonesia Perspective", Fitriani Ardiansyah, Neil Gunningham and Peter Drahos shed light on gaps between Indonesia's climate change and energy security objectives and its efforts on climate change. The Authors suggest that one of the most formidable challenges that Indonesia faces is the development of a consistent and sustainable domestic framework that can effectively guide the country's climate change efforts. For instance, political stability plays a significant role in the implementation of national policies and gaining the trust of its citizens would be crucial for the successful adoption of Indonesia's national strategies.

In **Chap. 5**, "Singapore's Policy Response to Climate Change: Towards A Sustainable Future", Authors Nur Azha Putra and Nicholas Koh offer insights on how the nation could socialise and therefore sustain its climate change policy that is largely founded on technology and market-based solutions by infusing its citizenry with the values of environmental citizenship. The Authors suggest that the socialisation of the country's climate change policies should begin at the grass-roots level and driven by civil society and non-governmental organisations with the support of the government. Additionally, climate change should be taught in public schools and therefore introduced in the national education curriculum. To be effective, meaningful and sustainable, the Authors argue that ecological citizenship should be rooted in the nation's socio-political history, cultural and intellectual tradition.

In the concluding chapter on "Empowering the People: Towards the Inclusion of a Global Civil Society in a New Climate Change Regime", Eulalia Han supports the significance of developing a global civil society that would encourage cooperation between countries to address climate change in a concerted effort. She calls for the greening of nation-building and the formulation of adaptive policies, and stresses the potential part that a global civil society could play in narrowing

the gaps between national and global initiatives towards climate change while prompting local communities from different countries to work towards a common goal.

Collectively, the chapters in this volume aim to discuss and introduce new ideas in the global climate change discourse while remaining sensitive to the economic and political issues and challenges in Asia-Pacific. We hope this volume will continue to spark fresh interests in the climate change discussions and dynamics of a region that is fast emerging as one of the most important actors in world politics.

Singapore, August 2013

Nur Azha Putra
Eulalia Han

Contents

1 Introduction: Governments' Response to Climate Change: Issues, Challenges and Opportunities	1
Nur Azha Putra and Eulalia Han	
1.1 Introduction	1
1.2 Climate Change: Then and Now	3
1.3 The Significant Role of Governments in Addressing Climate Change.	5
1.4 Climate Change and Regional Cooperation in Asia: Opportunities and Challenges	6
1.5 Conclusion	8
References	8
2 Engaging Emerging Countries: Implications of China's Major Shifts in Climate Policy	11
Gang He	
2.1 Introduction	11
2.2 Major Shifts in China's Climate Policy	13
2.3 Climate Change as a New Economic Opportunity: Understanding China's Participation in Global Climate Change Efforts	14
2.3.1 What Is China Doing?	14
2.3.2 What Is China Not Doing?	16
2.4 China's Core Interests in Energy Supply and Its Climate Policy Implications	16
2.5 Constrains and Uncertainties	17
2.6 Future Scenario: Towards a More Market-Oriented Climate Governance.	20
2.7 Conclusion and Discussion: Implications for International Energy and Climate Policy	22
References	23

3	India's Efforts to Maintain and Enhance Energy Security While Reducing Greenhouse Gas Emissions	25
	Harbans L. Bajaj	
3.1	Introduction	25
3.1.1	Climate Change and the Kyoto Protocol	27
3.1.2	India's Carbon Dioxide Emissions	27
3.2	The Indian Power Sector: An Overview	28
3.2.1	Capacity Addition Programmes for the 12th (2012–2017) and 13th (2017–2022) Five-Year Plans	31
3.2.2	Rural Electrification	32
3.2.3	Reforms and Restructuring	33
3.2.4	National Electricity Policy	33
3.2.5	National Electricity Plan	34
3.3	Coal-Based Thermal Generation and the Indian Power Sector: Technological Developments	34
3.3.1	Efficiency of Coal-Based Thermal Generation	35
3.4	Low-Carbon Growth for India: Strategies and Initiatives	36
3.4.1	Clean Development Mechanism Projects	37
3.4.2	Introduction of New Technologies: Clean Coal Technologies	37
3.4.3	Developing Conventional Sources	41
3.4.4	Harnessing Non-conventional Sources: Renewable Energy	44
3.4.5	Enhancement of the Power Infrastructure	45
3.4.6	Energy Conservation and Energy Efficiency	46
3.5	National Action Plan on Climate Change	47
3.5.1	National Solar Mission	48
3.5.2	National Mission for Enhanced Energy Efficiency	49
3.5.3	National Mission for a “Green India”	50
3.5.4	National Clean Energy Fund	50
3.6	Conclusion	51
	References	51
4	Climate Change and Energy Security Post-Cancún: The Indonesia Perspective	55
	Fitrian Ardiansyah, Neil Gunningham and Peter Drahos	
4.1	Introduction	56
4.2	Energy: Options and Policies Vis-à-Vis Climate Change Objectives	59
4.3	Impediments and Implementation Gaps in Renewable Energy Development: Geothermal Energy as Case Study	68

4.4	Further Steps and Conclusion	75
	References	76
5	Singapore's Policy Response to Climate Change: Towards a Sustainable Future	81
	Nur Azha Putra and Nicholas Koh	
5.1	Introduction	81
5.2	Singapore's Strategies to Address Climate Change	83
5.2.1	Mitigation	83
5.2.2	Adaptation: Enhancing Resilience to Climate Change Effects	88
5.2.3	Economic Opportunities in Green Growth	89
5.2.4	Partnerships in Climate Change Regimes	89
5.3	Singapore's Climate Change Policies: Will These be Enough?	91
5.3.1	Impediments, Rationale and the Way Forward	92
5.3.2	Ecological Citizenship and Green Political Thought: Strengthening Social Resilience	95
5.4	Towards a Robust Sustainable Society: Some Policy Recommendations	96
5.4.1	Education Towards a Green Lifestyle	97
5.4.2	Direct Participation in Environmental Decision-Making	97
5.4.3	Holding Businesses Accountable	98
5.4.4	Access to Justice in Environmental Matters	98
5.5	Conclusion	98
	References	99
6	Empowering the People: Towards the Inclusion of a Global Civil Society in a New Climate Change Regime	101
	Eulalia Han	
6.1	Introduction	101
6.2	Global Civil Society as a Way Forward	102
6.3	The Role of Global Civil Society in the New Climate Change Regime	104
6.4	Empowering the People: The First Step to a Sustainable Global Civil Society	105
6.4.1	Whose Right?	105
6.4.2	Hardin and 'The Tragedy of the Commons'	107
6.4.3	The Role of Developed and Developing Countries in Addressing Climate Change	107

- 6.5 Empowered Communities as Participants in Global Civil Society. 109
 - 6.5.1 Development of Hydropower in Southeast Asia 110
- 6.6 Greening Nation-Building, Creating Adaptive Policies. 113
- References 114

- National University of Singapore 119**

- Energy Studies Institute 121**

- About the Editors 123**

- About the Contributors 125**

- About this Book 131**

Chapter 1

Introduction: Governments' Response to Climate Change: Issues, Challenges and Opportunities

Nur Azha Putra and Eulalia Han

Abstract As Asia continues to achieve new heights in political, social and economic development, this has inevitably led to a rise in energy demand and increased carbon dioxide emissions as well as a new sense of urgency to adopt sustainable practices towards this end. This chapter highlights the issues of contention in the climate change rhetoric, as articulated by governments, and the strategies that are in place to encourage sustainable development. It also discusses the opportunities and challenges for regional cooperation in Asia while contending that there is presently added prospect for engagement in the region, especially on issues such as addressing climate change, given the culture of pragmatism that is prevailing in the arenas of domestic and international relations.

Keywords Asia · Climate change · Regional cooperation

1.1 Introduction

Over the last few decades, Asia has seen strong and robust economic growth. However, with strong economic growth comes increased demand for energy, and this has in turn lead to higher greenhouse gas (GHG) emissions. According to the World Energy Outlook 2012,¹ Asian countries will remain undeterred by rising

¹ WEO, "World Energy Outlook 2012", at: <http://www.iea.org/publications/freepublications/publication/English.pdf> (31 July 2013).

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prices and continue to rely on fossil fuels such as oil, natural gas, and coal to power their economies, at least in the foreseeable future. As it stands, Asian economies simply do not possess cheap and viable fossil fuel alternatives that can be deployed without risking their economic development and energy security. Nevertheless, Asian economies generally recognise that their continued reliance on fossil fuels hinder sustainable development.

Climate change is occurring and its effects have begun to take its toll, especially in the Asia Pacific region. Rising sea levels have had devastating effects on several Asia-Pacific islands. Elsewhere in the Asia Pacific, governments are struggling to mitigate frequent occurrences of flash floods due to frequent short bursts of heavy rainfalls and the loss of landmass due to diminishing coastlines. The world is getting warmer, too. The Arctic ice is melting, and there are fears that this could further lead to increased sea water levels. Rising sea water levels can not only diminish coastlines but also intrude into fresh water streams and reservoirs, thereby rendering fresh water sources inconsumable. Mountain glaciers are not forming quickly enough, and this affects the water security of many nations, particularly those in the South Asia region where fresh water supply is dependent on the glaciers in the Himalayas. Prolonged dry spells have affected agriculture. The food security of many communities is threatened by barren lands and the shortages or absence of rainfall. Other than its impacts on the environment, climate change poses security threats to human collectivities, too. Rivers that used to be a lifeline for coastal communities are drying up, forcing people to migrate inland and intrude into the space of other villages. In instances of forced migration, there have been reported cases of conflicts between communities. Population displacement and forced migrations are just two examples of the impact of climate change on human collectivities. In short, the threat of climate change has, in recent years, evolved to one that presents clear and present danger to the states.

With growing recognition of the threats of climate change, the international community has upped the ante. Recent rounds of the United Nations Framework Convention on Climate Change (UNFCCC) negotiations have seen a large improvement in the participating states' willingness to implement policies that aim to mitigate climate change. Reducing GHG to the extent that it does not negate energy security and economic growth appears to be a common feature in today's political lexicon. The international community has displayed a renewed vigour towards diversifying its energy mix to include environmentally friendly fuels such as hydro, nuclear, solar, biofuels and thermal options. Vigour, however, does not necessarily imply commitment to progress. Progress is still slow. Many economies continue to rely on oil and gas, and any attempt to mitigate climate change has to be considered within the larger framework of economic development. States, in general, are reluctant to implement expensive green technologies, reduce car populations, impose hefty green taxes and diversify their national energy mix to include a larger percentage share of expensive non-fossil fuels in the interest of protecting the economy.

As a growing middle class in consumerist-driven economies such as China, India, Vietnam, Thailand, Malaysia, Singapore and Indonesia have driven the

demand for more goods and services, this has in turn driven the need for more energy. Although Asia is rich in natural resources, countries in the region still predominantly rely on fossil fuels rather than clean energies such as hydro, solar, nuclear and biofuel sources. Consumers' choices for goods and services are still driven by personal preferences that are not rooted in the interests of climate change or sustainable development. This is unlikely to change drastically in the absence of green and environmentally friendly policies in the region such as carbon and green taxes. In the interest of sustainable development and mitigating climate change, governments therefore will have to intervene and influence consumer behaviours. This implies that governments too must implement policies at the national level that reflect the global threat of climate change. However, national policies for countries that are part of the global economy are unlikely to work in the absence of international cooperation. Addressing climate change requires a concerted effort, as neither are its effects constrained by geography nor does it only affect countries with extensive mining and production capabilities. Multilateral cooperation is therefore necessary, but can only be effective when governments' rhetoric and strategies are consistent and in line with the long-term goals of the international community. However, this is far easier said than done because not all countries are at the same level of political, social and economic development.

As a whole, Asia has experienced dynamic and sustained economic progress beginning in the last century, particularly in post-colonial Southeast Asia. Asian countries and China, in particular, are beginning to assert their economic presence in the quest for energy security around the world. Kishore Mahbubani, Dean and Professor in the Practice of Public Policy, Lee Kuan Yew School of Public Policy, National University of Singapore, Singapore, contends that the international community will see an end to Western domination of world history and the rise of Asian entrepreneurship, be it in business, innovation or policy-making (Mahbubani 2008: 9). What does this mean for Asia, which comprises countries with competing histories and ideologies and, more specifically, what does this mean for regional cooperation when it comes to addressing global issues such as climate change amid impressive political, social and economic development?

1.2 Climate Change: Then and Now

Discussions surrounding international environmental issues first emerged in the nineteenth century in the context of managing resources and in the face of recognition that these issues were inherently global (Greene/Owen 2005: 453). The first international treaty on the protection of flora was signed in 1889, which was followed by the 1902 Convention for the Protection of Birds Useful to Agriculture (Greene/Owen 2005: 453). In 1945, the preservation of natural resources was included as part of the mandate of the Food and Agriculture Organization (FAO)