

Chapter 1

Introduction

1.1 Problem Statement

The Clean Development Mechanism (CDM) is a ‘market-based’ mechanism defined in the Kyoto Protocol¹ to the United Nations Framework Convention on Climate Change (UNFCCC)² as part of the Kyoto response towards mitigation of global warming. Global warming has been described as one of the greatest challenges for the twenty-first century.³ For decades scientists have understood the processes by which emissions of carbon dioxide (CO₂) and other gases might warm the planet through the so-called ‘greenhouse effect’, nevertheless it was not until the 1980s that international concern about anthropogenic impacts on the atmosphere through such emissions came to a head, and it was only in the last two decades of the twentieth century that the UN took the first steps towards recognizing and addressing the issue.⁴ These first steps led to the conclusion of the 1992 UNFCCC, followed by its innovative 1997 Kyoto Protocol that refines and quantifies the rights and obligations regarding greenhouse gas (GHG) emissions reductions under the UNFCCC. According to the Kyoto Protocol, industrialized countries (Annex I Parties) are assigned legal binding reduction targets for GHG emissions by an average of 5.2% during the first commitment period 2008–2012 below 1990 levels whilst developing countries (non-Annex I Parties) whose paramount task at present stage is the economic development and to get rid of poverty are free of emission obligations during this period.

In order to assist with the massive reductions of GHG emissions necessary to arrest the processes of climate change, three ‘financial mechanisms’—Joint

¹ Kyoto Protocol (1997).

² United Nations Framework Convention on Climate Change (1992).

³ A consensus has been reached from a scientific, political, economic or legal perspective. See, e.g., Watkins et al. (2007) and Fry (2008).

⁴ See Freestone (2005), p. 3.

Implementation (JI),⁵ Emissions Trading⁶ and the CDM—have been devised under the Kyoto Protocol. With the dual aim of fostering sustainable development in developing countries and helping industrialized countries meet their mandated GHG emission reduction targets cost-effectively, the CDM is the only mechanism within the Kyoto Protocol open to Contracting Parties classified as industrialized countries and developing countries. In brief, it works in the following way: industrialized countries invest in emission reduction projects undertaken in developing countries through providing financial assistance or clean technology transfer to buy Certified Emission Reduction (CER)⁷ credits. These CERs can be traded and sold, and used by industrialized countries to meet a part of their emission reduction targets under the Kyoto Protocol. In the meantime, developing countries may obtain economic, environmental and technological benefits from undertaking CDM projects. Since the CDM was initiated, more than 3,000 projects have been registered worldwide and it is estimated to produce CERs amounting to more than 2.7 billion tonnes of CO₂ equivalent in the first commitment period of the Kyoto Protocol.⁸

As a non-Annex I Party of the Kyoto Protocol, China is eligible to participate in CDM projects. In recent years, China with its large carbon emission potential and favorable investment and legal environments has become the global CDM project centre and has then dominated the global carbon market. Already today, CDM projects launched in China have been responsible for approximately 60% of the total CERs produced under the scheme.⁹ Hence, China has benefited greatly from the CDM. In spite of these benefits, many barriers and problems are still encountered in the practical implementation of CDM projects in China as a result of the complex, time-consuming and technical CDM project operational rules and procedures. On the other hand, although the CDM has brought significant benefits to China, its impact on sustainable development in China in the long run is still uncertain.

In addition, as the first phase of the Kyoto Protocol is set to expire in 2012, the international climate change regime and the CDM are likely to be changed in the post-2012 period. China, as a major GHG emitter and developing country, will play an important role in combating global warming in the post-2012 period. It is expected to take on more reduction responsibilities and thus will be under considerable pressure to reduce carbon emissions without undermining its economic development.

⁵ Joint Implementation is defined in Article 6 of the Kyoto Protocol. For details, see below page 19.

⁶ Emissions Trading is set out in Article 17 of the Kyoto Protocol. For details, see below page 19.

⁷ CERs, each equal to one tonne of CO₂ and generated from CDM project activities, can be transferred under the rules of the Kyoto Protocol.

⁸ See CDM in Numbers, CDM-Home (2011) UNFCCC <http://cdm.unfccc.int/Statistics/index.html> at 9 August 2011.

⁹ See CDM Statistics: CERs Issued by Host Party, CDM-Home (2011) UNFCCC <http://cdm.unfccc.int/Statistics/Issuance/CERsIssuedByHostPartyPieChart.html> at 9 August 2011.

Against this background, it is important to analyze how the CDM contributes to promoting sustainable development in China and to formulate recommendations as to what China should do to make full use of the CDM to promote sustainable development and to meet the challenges of global warming and emission reductions.

1.2 Literature Review

An extensive literature has developed covering more than 200 studies on economic, political, methodological, sustainable development and legal aspects of how the CDM has been implemented since 1997. However, there is a dearth of literature that seriously or thoroughly explores the legal issues surrounding the CDM in China. Most earlier overseas studies only apply the ‘common but differentiated responsibilities’ principle¹⁰ and cost-effectiveness analysis¹¹ to discuss the prospects and pitfalls of the CDM in a global context or from a developing country’s perspective. The research on the CDM develops rapidly. Most recent studies analyze the implementation of the CDM and point out various existing problems from a global perspective rather than in the context of China. In addition, most research on this topic in China does not deal with the topic directly. It still treats these issues in a cautious manner, giving only a general introduction to the background, content, operation and management rules of the CDM and with respect to its implementation in China. Although there are several lawyers with access to the climate change cases who attach great importance to the concrete legal issues and contractual risks in the CDM in China, they have just identified the existing legal problems without having set forth corresponding solutions in a systematic and comprehensive way. Accordingly, this book contributes to addressing this gap.

1.3 Purpose and Scope

Based on the above introduction, this book will explore how the CDM could be used by China to its benefit from a legal perspective. It should be noted that this study focuses on the legal aspect of implementing the CDM in spite of the importance of other aspects that may influence its success and that this book discusses how the CDM can benefit China rather than how it can benefit developed nations, which are traditionally the focus of most scholarship.

¹⁰ This principle has been recognized by international community as one of the basic principles in international environmental law. For details, see below pages 21–22.

¹¹ Cost-effectiveness analysis (CEA) is a form of economic analysis that compares the relative costs and outcomes (effects) of two or more courses of action.

1.4 Overview of the Study

In order to logically achieve this purpose, this book is divided into seven chapters and several critical issues are identified and addressed in each chapter. Chapter 1 is an introduction giving an overview of the whole book. This chapter introduces a general background to the CDM and its implementation in China, and then, reviews the relevant literature and states the purpose and scope of the research. The methodology used in the book as well as the limitations of the study are also set out.

Chapter 2 describes what the CDM is and how it operates. It presents the basic background to the CDM and critically analyses the new mechanism in the global context.

Chapter 3 discusses the CDM in the context of China. The current situation of the CDM implemented in China is explored and its performance is assessed in accordance with China's national circumstances. In addition, barriers to the CDM development in China are identified.

Chapter 4 investigates the legal aspects of implementing the CDM in the context of China. Many critical legal issues involved in the implementation of the CDM in China are examined under the current international regulatory framework and Chinese domestic laws and regulations. Following that, the potential project risks under the legal frameworks in China are explored.

Chapter 5 discusses the CDM in China in the post-2012 period. The challenges of climate change to be faced by China beyond 2012 and the role of the CDM in assisting China in meeting these challenges in the post-2012 period are discussed based on the prospect for climate change regime beyond 2012.

Chapter 6 conducts a comparative study of the CDM in India as there are many similarities between both India and China with regard to the CDM implementation and its impact and approach to climate change issues due to the fact that India is another major developing country with a large population and a potential source of GHG emissions rivaling China in the near future.

Chapter 7 contains the conclusion and recommendations. This chapter starts with a summary of what has been discussed and analyzed in the previous chapters, and then discusses how to increase the benefits from CDM projects and also to identify ways to improve its implementation and to meet challenges in the post-2012 period in a proactive manner. The stage for further study on the development of CDM on a primarily innovative basis for cooperation between developed and developing countries is also discussed.

1.5 Methodology

Historical Study: In the second chapter of book, background to and origin of the CDM are reviewed. The historical study enables the author to analyze and discuss the necessity of the CDM from a historical perspective.

Case Study: The CDM is a practical scheme. Hence, it is impossible to gain a comprehensive idea of the real situation surrounding CDM projects in China without a case study or field work. In this circumstance, through contacting the people involved in implementation of CDM projects in practice in China, the first-hand information, which is essential to accurately identifying the real problems in and barriers to the implementation of CDM projects in practice, may be obtained.

Comparative Study: A comparative study on the implementation of CDM projects in India is conducted. Through this comparative study, the India's experience and lessons in managing and operating CDM projects as well as addressing climate change issues through viable environmental laws and policies could be critically reviewed in order to consider how China could solve its own problems concerning the CDM and climate change.

Statistical Study: Statistical study is an indispensable part of the book. A lot of information and data concerning CDM projects are collected. Through statistical study, the underlying regularities, which are essential to developing the research, could be obtained from this information and data. Based on these regularities, the problems of the implementation of CDM projects may be identified and solutions may be put forward.

Legal and Economic Study: Knowledge from the disciplines of both Law and Economics are utilized to analyze the nature of the CDM and discuss the possible solutions to the problems of the implementation of CDM projects in China. Cost-effectiveness analysis and cost-benefit analysis are applied to discuss the underlying rationale for the CDM and legal analysis is used to explore the legal nature of the CDM. Only by fully understanding its nature, can it be possible to put forward the corresponding suggestions on addressing the existing problems concerning the CDM implementation in China.

In addition, the following approaches are used in the book:

Pragmatic Approach: When assessing the performance of the CDM in China, a pragmatic approach is applied. One of the objectives of the CDM is to assist developing countries in achieving sustainable development. Operationally in the methodological literature there seems to be a consensus that sustainable development encompass at least three dimensions: the social, the economic and the environmental.¹² However, when it comes to practical and concrete assessments of sustainability impacts of CDM projects, there is no single, authoritative and universally accepted approach or methodology applicable to any CDM project regardless of project type and location.¹³ This is because the actual definitions of what constitutes sustainable development vary according to different countries' national circumstances. Accordingly, the pragmatic approach should be applied to assess the CDM's contribution to sustainable development in the context of China.

¹² Oslen (2006).

¹³ Ibid 8.

Market-based Approach and Interventionist Approach: Both market-based and interventionist approaches are applied to discuss the CDM in this book. As for the CDM, both approaches stress the need for a system capable of generating emission reductions, but differ on the best means of achieving this. A market-based approach, based on private sector activities, relies upon healthy competition in a transparent market place to provide the most efficient and effective means of encouraging hosts and investors to conduct CDM project activities. However, an interventionist approach, which is based on traditional public sector development assistance, challenges the private sector's ability to fulfill the CDM's stated purpose of assisting developing countries in achieving sustainable development under the market-based approach. Such an approach emphasizes the need for the active involvement of public sector institutions, including home and host governments and international development institutions in promoting the design of projects driven by broad-based policy concerns rather than market disciplines.¹⁴ In this book, both market-based approach and interventionist approach are used to analyze the development of the CDM in China.

1.6 Limitations

First of all, a limitation of this book lies in keeping track of the rapidly evolving international policies on climate change and following the rapid CDM project progress and relevant regulations updates. They are essential but challenging, especially within a limited time and the resources available.

Second, the deficiencies in availability of reliable and updated data concerning the CDM to a limited extent affect the in-depth analysis in the book. Although most of the CDM-related data could be gained through the CDM official websites, some of them, especially those concerning the pricing and trading information on specific CDM projects, are confidential. Also, it is difficult to find an authoritative source of statistics about China. Some of the key statistics are not complete or identical and it is difficult to verify the reliability of some available data.

Third, in spite of extensive field work conducted during the studies, it is still a difficult task to obtain a comprehensive picture of the real situation surrounding the implementation of CDM projects in China.

Finally, difficulties are encountered in the field work as any climate change issue is extremely sensitive in China. Most CDM projects involve trade secrets and often the national confidential information concerning energy security and energy resources. Thus, CDM developers and related officials tend to be reluctant to take part in any field study in order to keep the information from being disclosed. Moreover, it was difficult for the author, a full-time PhD candidate at that time,

¹⁴ Werksman (1998), p. 147.

to contact the actual CDM participants in China. As a result, during the interviews, the respondents were cautious about their comments on any climate change-related issues in China and had discreet replies to the interview questions.

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