

Win-win strategy for Japan and China in climate change policy*

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Index

Chapter 1 Introduction

Chapter 2 Site Location of CDM Projects: I-O analysis

Summary

2-1 Introduction

2-2 Ultimate acquisition rate of value-added

2-2-1 Home production rate

2-2-2 Value-added division of labor

2-2-3 Ultimate value added distribution in China

2-3 Spillover ratio of innovation

2-3-1 Process innovation and product innovation

2-3-2 Spillover coefficient of process innovation

2-3-3 Spillover rate of process innovation in China

2-4 The policy of China government

2-5 Scenario analysis

2-5-1 Two aspects of CDM

2-5-2 Effects of construction phase of CDM

2-5-3 Effects of operating phase of CDM

2-5-4 Net Effects of CDM

2-6 Concluding remarks

References

Chapter 2 Tables and Figures

Chapter 3 A multi-sectoral Econometric Model of China

Summary

3-1 Introduction

- 3-2 Outline of Multi-Sectoral Econometric Model of China
 - 3-2-1 Macro bloc
 - 3-2-2 Demand-Supply Balance
 - 3-2-3 Price-Cost Structure
 - 3-2-4 Employment, Wage and Value Added
 - 3-2-5 Energy Bloc
- 3-3 Estimation Results of the Revised Model and Its Performance
 - 3-3-1 Estimation Results
 - 3-3-2 Model Performance
- 3-4 Baseline Forecast and Scenario Analysis
 - 3-4-1 Assumption
 - 3-4-2 Feature of Baseline Forecast
 - 3-4-3 Scenario Analysis
- 3-5 Quality Index of China
- Reference

Chapter 4 An Option of Financing CDM Projects in China

Summary

- 4-1 Introduction
- 4-2 The Role of Finance and Insurance in CDM Projects
- 4-3 Potentials for Financing of CDM Projects in China
 - 4-3-1 Potentials of domestic financing
 - 4-3-2 Potential of foreign financing
- 4-4 ODA Involvement in CDM Projects
 - 4-4-1 Discussion over the ODA involvement in CDM projects
 - 4-4-2 Past experiences of ODA involvement in CDM projects
- 4-5 Indirect ODA Involvement through Environmental Fund
 - 4-5-1 Enhancing Financing from Environmental Fund

4-5-2 World Bank experience of enhancing environmental fund

4-5-3 Feasibility of CDM funds

4-6 Rationale for Direct ODA Involvement in CDM Projects

4-7 Conclusion

References

Chapter 5 Discussion and Conclusion

1. Introduction

The Kyoto Protocol, signed in 1997, finally came into force on 16 February 2005 since Russia ratified the protocol on November 2004. Now, the international society is under a cooperative framework to reduce greenhouse gas (GHG) emissions with a legal binding.

According to the protocol, Annex I countries have to achieve their imposed GHG reduction targets during the first commitment period of 2008 to 2012. In particular, in a severe situation is Japan since domestic measures would not be enough for Japan to achieve the reduction target. Therefore it will be inevitable for Japan to make use of the Kyoto mechanism. The Clean Development Mechanism (CDM), one of the Kyoto mechanisms, is an issue of the greatest concern of Japanese government. CDM will contribute to sustainable development of developing countries as well as reduction of greenhouses gas emissions.

CDM is a kind of international investment projects to reduce greenhouse gas emissions. Though CDM project itself is on a basis of private contract, the project needs to be approved or certificated by CDM Executive Board, host and investment countries. Therefore, it is usual that the governmental organizations of host and investing country discuss various issues before implementing CDM projects. However, the most of researches on CDM are from the viewpoint of the Annex I countries (investment countries) side and scarcely found were reports emphasizing a viewpoint of the developing country side.

Ueta *et. al.*(2004) analyzed how China-Japan CDM should be designed in order to achieve not only climate change mitigation but also local pollution control target from the global, regional and domestic viewpoints. One of the main theme of Ueta *et. al.*(2004) was which country is preferable as a partner of CDM if Japan should implement CDM projects. Ueta *et. al.*(2004) pointed out that China has a large potentiality of GHG reduction through CDM projects, and that China is the most preferable partner for Japan when ancillary benefits from energy saving in China are taken into consideration. Then, the main purpose of the report of this year, on the same extension as Ueta *et. al.*(2004), is to propose on which region in China is most suitable as a site location of CDM in China from a variety of viewpoints.

This report examines these issues using Input-Output and Keynes-Leontief frameworks. Moreover, this report proposes some financing methods to boost the chance of China-Japan CDM projects. The financing issue is critically important in

China, for it would be difficult to expect domestic/foreign private financing on CDM projects in near future due to high project risk as well as underdevelopment of financial institutions in China.

The structure of this report is as follows. The next chapter will describe which region is preferable as a site location of CDM projects in China from a variety of viewpoint such as own value-added acquisition rate, spillover effect, alleviation of regional imbalance, economic effects by CDM investment, and CO₂ and SO₂ reduction effect of CDM projects, using a Multi-Regional Input-Output Table China 2000. Chapter 3 will examine economic and environmental effects using the revised multi-sectoral econometric model of China. In the simulation analysis, economic effects of CDM projects will be examined by sector while net effects of CDM on reduction of CO₂ and SO₂ emissions are also confirmed. In Chapter 4, we will try to find out feasible options (such as export credit, external public fund, combination of ODA and ERPA) of financing CDM projects in China. And, Chapter 5 is for concluding remarks.

Reference

Ueta, K., Inada, Y., Fujikawa, K., Mori, A., Na, S.I., Hayashi, T., Nakada, M, Konishi M., 2004. "Win-win Strategies of Global and Domestic Climate Change Policy for China, Asia and Japan," *Final Report of the International Collaboration Project on Sustainable Societies* Organized by the Economic and Social Research Institute, Cabinet Office, Government of Japan.