

Legal Aspects of Climate Change: Is There any Inspiration from the US and Europe for the Development of Carbon Market in China ?

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Abstract

Climate change is a pressing global issue requiring effective response. As a complex and challenging topic, it has many interrelated dimensions and law plays a very important role at international, national and local levels. The US, EU and China are among the most important actors for combating climate change, despite the big difference among them. It's possible and significant for China to learn some experiences and lessons from the US and Europe when it is trying to establish and improve its legal systems and mechanism for climate change, including the law for carbon market.

The purpose of the research is to develop a theoretical framework explaining the economic basis of the establishment and operation of regulatory carbon market and voluntary carbon market, to analyze the typical legal models of and the underlying driving forces for the main carbon markets in the US and Europe, to assess the performance and effectiveness of the main carbon market programs, and to figure out some general principles, models, development trends, experiences and lessons of carbon markets in the US and Europe, for China's reference when it establishes and improves the law for carbon market.

The methodology of the research includes: literature analysis, comparative analysis, economic analysis and other interdisciplinary analysis, case studies, and hopefully, field visits and interviews.

The preliminary outline of the paper is as follows:

- I. The challenge of climate change and relevant legal and policy solutions
- II. Comparative Studies on the Legal Issues of Carbon Market in the US, Europe and China
 - A. The typical models of carbon markets;
 - B. Analysis on the economic and legal basis of carbon market;
 - C. The legal sources and models of carbon markets;
 - D. The underlying driving forces of the carbon markets;
 - E. The main subjects (actors) of the carbon markets and their relationship, main objects of the carbon markets and their legal nature;
 - F. The advantages and disadvantages of the legal mechanism for carbon markets, and the performance and effectiveness assessment;
- III. Possible Experiences and Lessons from the US and Europe for the Carbon Market Development in China
- IV. Conclusion

It's expected that the focus during September 2012 – December 2012 will be literature analysis, field trips and interviews, idea exchanges with sponsor professor and other colleagues; that the focus during January 2013 – April 2013 will be writing of the first draft of the paper, present it at the Fellow Forum for comments. Based on the above-mentioned work, during May 2013, I will improve the draft paper and get ready for publication at the end of the academic year.

1. Reasons for choosing the topic:

1.1 Climate change is a pressing global issue requiring effective response for the sustainable development of humankind. As a complex and challenging topic, it has many interrelated dimensions, such as scientific and technological, political, social, economic, and legal dimensions. Law plays a very important role for humankind responding to climate change at international, national and local levels;

1.2 The US, EU and China are among the most important actors for combating climate change, despite the big difference among them. It's possible and significant for China to learn some experiences and lessons from the US and Europe when it is trying to establish and improve its legal systems and mechanism for climate change, including the law for carbon market;

1.3 In China, the legal studies on carbon market is, generally speaking, poor and lags behind the legislative, compliance and management practices of the real world. So it's necessary to strengthen the studies in the rapid-developing legal field for not only the academic purpose, but also for the improvement of China's legal systems and practices for climate change;

1.4 NYU School of Law is the leading institute for the studies of environmental law, international environmental law, global governance and global administrative law, with many world class legal scholars working in this field.

2. Purpose and output of the research:

2.1 To develop a theoretical framework explaining the economic basis of the establishment and operation of regulatory carbon market and voluntary carbon market, to analyze the typical legal models of and the underlying driving forces for the main carbon markets in the US and Europe, to assess the performance and effectiveness of the main carbon market programs;

2.2 To figure out some general principles, models, development trends, experiences and lessons of carbon markets in the US and Europe, for China's reference when it establishes and improves the law for carbon market. The paper could hopefully be submitted to the Environmental Protection and Resource Conservation Committee of the National People's Congress, and the National Development and Reform Commission.

3. Main issues to be studied on:

3.1 Theoretical legal and policy solutions for climate change, economic basis and typical models of carbon markets--based on *the Tragedy of the Commons* (Hardin, Science, 1968), *Coase Theorem* (Coase) and so on;

3.2 Practical legal sources, models and underlying driving forces of the carbon markets in the US and Europe;

3.3 The main subjects (actors) of the carbon markets and their relationship, main objects of the carbon markets and their legal nature in the US and Europe;

3.4 The advantages and disadvantages of the legal mechanism for carbon

markets in the US and Europe, and the performance and effectiveness assessment of these markets;

3.5 The status quo, problems and possible ways out of carbon market in China and the potential legal experiences and lessons from the US and Europe for carbon market development in China.

4. Methodology of the research:

4.1 Literature analysis

Kyoto Protocol to the UNFCCC(1997) declared the introduction of global carbon market regime. After that, many regional, national and local carbon markets, among which are EU ETS and Chicago Climate Exchange (CCX), have come into being. According, numerous papers, reports, books and conferences have been published or held, many websites on carbon market have also been established. This research will be based on the existing English and Chinese literature, in particular the literature on law and the literature on economics;

4.2 Comparative analysis

The difference and commons between the law for carbon markets in the US and Europe will be analyzed based on comparison;

4.3 Economic analysis and other interdisciplinary analysis

Economic terms, models and theories in particular environmental economics will be used as very necessary tool to explain, analyze and even predict development of law for carbon market. Environmental policy and management, environmental science and technology, and environmental ethics will also be used for the research wherever it's necessary;

4.4 Case studies

The EU ETS and CCX will be the model cases to be studied;

4.5 Field visits and interviews

Field visits to CCX, EU ETS and face-to face interviews with stakeholders (public decision-makers and main private actors of the carbon market) will be considered. The alternative is email contacts and phone meetings with related institutions and staff.

5. Materials available for the research:

With the support of search tools such as WESTLAW, I have found hundreds of papers, research reports, books and legislations in English or Chinese on carbon market, some of which are on the legal aspects of carbon market.

5.1 Main literature on the US Carbon Markets

The US Carbon Market (Michael J. Walsh, Executive Vice President of CCX, 2007), *Back to the Future: State of the Voluntary Carbon Markets 2011*(A Report by Ecosystem Marketplace & Bloomberg New Energy Finance, June 2, 2011) and *Navigating a Nebula: Institutional Use of the United States' Voluntary Carbon Market* (Katherine Hamilton, May 18, 2006) showed us the general picture of the US carbon markets.

In the paper *It's Not Easy Being Green: Reflections on the American Carbon*

Offset Market(Sustainable Development Law & Policy, Winter 2008),Laurie A.Ristino analyzed the regulatory offset(regulated by emerging state such as Oregon and regional cap and trade frame-works like the Regional Green-house Gas Initiative)and voluntary offset markets in the US, argued that carbon offsets have the potential to play an effective, interim role as part of an overall comprehensive federal framework that uses multiple strategies to address climate change, however, a national regulatory framework that takes a disciplined approach to offset creation is needed to ensure high quality offsets resulting in real climate mitigation;

In the paper *United States Climate Policy: Using Market-based Strategies to Achieve Greenhouse Gas Emission Reductions* (Energy & Environmental Security Initiative, University of Colorado Law School, June 2007) , KEVIN DORAN and ALAINE GINNOCHIO discussed cap-and-trade system and emissions tax, the two dominant strategies for climate change, introduced the status of policies and programs of the international community and Europe, summarized the legislative proposals and proposals by key groups for climate policy in the US, and urged the US to take clear and strong climate policy;

In the paper *COMBATING GLOBAL CLIMATE CHANGE: WHY A CARBON TAX IS A BETTER RESPONSE TO GLOBAL WARMING THAN CAP AND TRADE* (Stanford Environmental Law Journal, February, 2009) , Reuven S. Avi-Yonah and David M. Uhlmann argued that both a carbon tax and a cap and trade system incorporate the necessary carbon price signal, with a tax offering “price certainty” and cap and trade offering “benefit certainty,” and asserted that a carbon tax would be simpler to implement, more transparent, and less vulnerable to abuse;

5.2 Main literature on the European Carbon Markets

Profiting from Regulation: An Event Study of the European Carbon Market(James B. Bushnell etc, December 2009)

In the paper *Legal aspects of climate change in Europe: is the European Union Emission Trading Scheme greater than the sum of the parts?* (Journal of International Banking Law and Regulation, 2008) Christel Bourbon-Seclet analyzed the multiplicity of legal sources directly regulating the EU ETS, the allocation and nature of EU allowances, the fluidity of the market, the linking of the scheme with other emission trading schemes and the international scheme and the possible negative impact of the scheme on industrial competitiveness;

5.3 Main literature on the Comparison between US and European Carbon Markets

LEGAL ISSUES FOR CARBON-RELATED TRANSACTIONS: REGULATIONS, MARKETS, TECHNOLOGY & ENHANCING VALUE (Practising Law Institute, Corporate Law and Practice Course Handbook Series, February, 2009) introduced the regulatory framework for carbon market of the international community, Europe and the US, analyzed the legal frameworks for carbon ownership under European and US carbon regimes;

In the paper *Climate Change Policies An Ocean Apart: EU & US Climate Change Policies Compared* (Penn State Environmental Law Review, Spring, 2006), Cinnamon Carlarne analyzed the basic principles for climate change policies in

practices, compared the EU and US climate change policies, examined briefly the underlying reasons for the policy difference and concluded that the EU model which combines the mandatory and voluntary strategies is effective than the US regime which is based on voluntary programs.

5.4 Main literature on the Chinese Carbon Markets

The paper *On the Legislation of EU ETS* (Fu Lu, AREAL RESEARCH AND DEVELOPMENT, No1, 2009) outlined the legal aspects of EU ETS;

In the paper *Worldwide Development of Carbon Market and Its Implications for China* (China Soft Science, issue12, 2009), Zhou Hongchun summarized the main carbon market regimes of the international community, EU and US, suggested that economic incentives such as carbon market and according legal measures should be introduced and strengthened for China's responding to climate change, but he did not give any specific countermeasure or solution.

6. Preliminary outline of the paper:

I. The challenge of climate change and relevant legal and policy solutions

A. Climate change, its impacts on ecosystem and humankind, and the worldwide respond;

B. Various inter-rated dimensions of climate change and the role that law plays in fighting the challenge;

C. The Tragedy of the Commons, possible solutions and two dominant strategies for climate change: carbon market and carbon tax;

D. Clarifying briefly the main purpose and output of the research, the main issues to be studied on and the methodology of the research;

E. Summarizing the existing related literature, indicating the characteristics of the research methodology and possible innovative ideas of the research;

II. Comparative Studies on the Legal Issues of Carbon Market in the US, Europe and China

A. The typical models of carbon markets: carbon markets based on Kyoto Protocol and carbon markets that are not based on Kyoto Protocol; carbon markets based on mandatory requirements and carbon markets based on voluntary commitments; program allowance based carbon markets and project based carbon markets.

B. Analysis on the economic and legal basis of carbon market;

C. The legal sources and models of carbon markets in the US, Europe and China;

D. The underlying driving forces of the carbon markets in the US, Europe and China;

E. The main subjects (actors) of the carbon markets and their relationship, main objects of the carbon markets and their legal nature in the US, Europe and China;

F. The advantages and disadvantages of the legal mechanism for carbon markets in the US, Europe and China, and the performance and effectiveness assessment of these markets;

III. Possible Experiences and Lessons from the US and Europe for the Carbon Market Development in China

- A. The choice of legal sources and models of carbon markets;
- B. The improvement of underlying driving forces of the carbon markets, in particular the political, technological and economic factors;
- C. The organization and operation of the carbon markets, in particular the main subjects (actors) of the carbon markets and their relationship, main objects of the carbon markets and their legal nature.

IV. Conclusion

Main theoretical findings and practical proposals for the development of carbon market in China.

7. Timetable of conducting the research:

7.1 September 2012 – December 2012, more literature analysis, visits to CCX and EU ETS wherever it's feasible, idea exchanges with sponsor professor and other colleagues;

7.2 January 2013 – April 2013, writing of the first draft of the paper, present it at the Fellow Forum for comments;

7.3 May 2013, improving the draft paper based on the latest comments from the sponsor professor and other colleagues, be ready for publication at the end of the academic year.