

## ISSUE FOCUS

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# Legal Issues for Implementing the Clean Development Mechanism in China

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*The Clean Development Mechanism under the Kyoto Protocol was implemented in China several years ago. In spite of the significant benefits the CDM has brought to China, legal research on the CDM is relatively weak and there are many legal problems with the implementation of CDM projects in China. This article clarifies the legal problems of implementing the CDM in China by exploring and analyzing how to implement CDM projects, the legal relationships involved, CDM-related contracts and various key legal issues. The conclusions drawn from the above discussions could have implications for the future carbon reduction activities in China beyond 2012.*

### Keywords

CDM, UNFCCC, Climate Change, Legal Relationship, Carbon Reduction

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## I. Introduction

Climate change is one of the highly topical issues of today's world. The international community has been working together to minimize climate change risks through the 1992 United Nations Framework Convention for Climate Change ("UNFCCC")<sup>1</sup> and its innovative 1997 Kyoto Protocol.<sup>2</sup> According to the Kyoto Protocol, industrialized countries are assigned legally binding reduction targets for Greenhouse Gas ("GHG") emissions by an average of 5.2 percent during the first commitment period 2008-2012 below 1990 levels, while developing countries whose paramount task at present stage is economic development and to get rid of poverty are free of emission obligation during this period.

The Clean Development Mechanism ("CDM") is a 'market-based' performing system defined in the Kyoto Protocol as part of the Kyoto response towards mitigation of global warming. 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 under the Kyoto Protocol open to industrialized and developing countries. It allows industrialized countries to buy the Certified Emission Reduction ("CER") credits<sup>3</sup> from emission reduction projects undertaken in developing countries by providing financial assistance or clean technology transfer to offset a part of their emission reduction targets under the Protocol.

Since it was initiated, thousands of CDM projects have been carried out.<sup>4</sup> China, especially with its large carbon emission potentials and favorable investment environment, has dominated the global carbon market through participating in CDM projects and has become its largest beneficiary. Despite the significant benefits the CDM has brought to China, there are legal problems pertaining to implementing CDM projects in China due to the fact that the CDM is an extremely complex, technical and legal mechanism which is implemented under both international and domestic legal frameworks. In addition, legal research on the CDM is relatively minimal as it is a new mechanism with the first project registered in 2004. Thus, there is a dearth of literature that seriously or thoroughly explores the legal issues surrounding the CDM in China.

Against this background, it is necessary to explore the various legal issues

<sup>1</sup> U.N. Doc. FCCC/INFORMAL/84 GE.05-62220 (E) 200705 (June 12, 1992).

<sup>2</sup> UNFCCC, KYOTO PROTOCOL TO THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE ("Kyoto Protocol") (Dec. 11, 1997), available at <http://unfccc.int/resource/docs/convkp/kpeng.pdf> (last visited on Mar. 20, 2011).

<sup>3</sup> CERs, each equal to one tonne of CO<sub>2</sub> and generated from a CDM project activity, can be transferred under the rules of Kyoto Protocol.

<sup>4</sup> See the official website of CDM, available at <http://cdm.unfccc.int> (last visited on Mar. 20, 2011).

surrounding the implementation of CDM projects in China. With the expiration of the first Kyoto period, as one of the largest GHG emitters and major developing countries, China is expected to play an indispensable and decisive role in combating global warming beyond 2012. Therefore, it is of great significance to discuss and clarify the legal problems of the CDM in the context of China with a view to assisting China in making full use of the CDM to meet the challenge of global warming. Based on the above analysis, this article aims to clarify the legal problems of implementing the CDM in China through discussing various legal issues.

This article is divided into six parts. Part II introduces how to implement CDM projects under the contemporary international regulatory framework as well as Chinese domestic laws and regulations. Part III discusses various legal relationships involved in implementing CDM projects. Based on the discussion on Part III, Part IV explores CDM-related contracts. Part V assesses key concrete legal issues surrounding CDM projects. Part VI is a conclusion and some recommendations to help clarify the legal problems of implementing the CDM in China and addressing implications of developing the carbon reduction projects beyond 2012.

## II. Implementing CDM Projects in China

Article 12 of the Kyoto Protocol, the Marrakech Accords<sup>5</sup> and other decisions of the conferences of parties of the UNFCCC stipulate the CDM modalities, operational rules and procedures. Additionally, in October 2005, the Chinese Government issued Measures for the Operation and Management of CDM Projects in China (“Measures”),<sup>6</sup> which is regarded as a basic regulation to guide the implementation of CDM projects. According to the international treaty and documents as well as the Measures, how to implement CDM projects in China is introduced.

### A. Legal Requirements for CDM Projects

The general requirements for CDM project activities, with a view to protect China’s rights and interests, shall not only conform to the requirements under the UNFCCC, the Kyoto Protocol and relevant decisions by the conference of parties in an international

<sup>5</sup> UNFCCC, THE MARRAKESH ACCORDS AND THE MARRAKESH DECLARATION, available at [unfccc.int/cop7/documents/accords\\_draft.pdf](http://unfccc.int/cop7/documents/accords_draft.pdf) (last visited on Mar. 20, 2011).

<sup>6</sup> See *Measures for the Operation and Management of CDM Projects in China 2005* (the People’s Republic of China), available at <http://cdm.ccchina.gov.cn/english/NewsInfo.asp?NewsId=905> (last visited on Mar. 20, 2011).

context, but shall also meet the following requirements:

- CDM project activities shall be consistent with China's laws and regulations, sustainable development strategies and policies, and the overall requirements for national economic and social development planning;<sup>7</sup>
- The implementation of CDM project activities shall not introduce any new obligation for China other than those under the UNFCCC and the Kyoto Protocol;<sup>8</sup>
- The implementation of CDM project activities shall conform to the requirements of the Convention, the Protocol and relevant decisions by the Conference of the Parties;<sup>9</sup>
- CDM project activities should promote the transfer of environmentally sound technology to China;<sup>10</sup> and
- Funding for CDM projects from developed country Parties shall be in addition to their current official development assistance and financial obligations under the UNFCCC.<sup>11</sup>

## B. Participation Eligibility

The Chinese Government also set up a rule with regard to project participation eligibility. Chinese funded or Chinese-holding enterprises within the territory of China are eligible to conduct CDM projects with foreign partners.<sup>12</sup> This can be interpreted that the Chinese partner must have minimum 51 per cent share in a CDM project. In addition, the priority areas for CDM projects in China are energy efficiency improvement, development and utilization of new and renewable energy, and methane recovery and utilization.<sup>13</sup>

## C. Key Legal Entities Involved in Implementing CDM Projects

### 1. *The CDM Executive Board ("CDM EB")*

The CDM EB is a formal independent government body established under Article 12 of the Kyoto Protocol to oversee the implementation and administration of the CDM. The main function of the CDM EB is to register projects, issue CERs and make publicly available information on CDM project activities.<sup>14</sup>

<sup>7</sup> *Id.* art. 6.

<sup>8</sup> *Id.* art. 8.

<sup>9</sup> *Id.* art. 7.

<sup>10</sup> *Id.* art. 10.

<sup>11</sup> *Id.* art. 9.

<sup>12</sup> *Id.* art. 11.

<sup>13</sup> *Id.* art. 4.

<sup>14</sup> See UNFCCC, *Background*, available at <http://cdm.unfccc.int/EB/background.html> (last visited on Mar. 20, 2011).

## 2. CDM Management Institutions in China

The relevant institutions for CDM projects in China are the National Climate Change Coordination Committee (“Committee”), National CDM Board (“Board”), which is established under the Committee, and a CDM project management institution, which is established under the Board. The Committee is responsible for the review and coordination of important CDM policies. The Board, comprised of ministry level institutions, is mainly responsible for reviewing and evaluating CDM project activities.<sup>15</sup>

The National Development and Reform Commission (“NDRC”), serving as the CDM project management institute, is China’s Designated National Authority (“DNA”)<sup>16</sup> for the CDM. It is responsible for managing the concrete issues concerning the implementation of CDM projects in China.

## 3. Designated Operational Entity (“DOE”)

The DOE is either a domestic legal entity or an international organization accredited and designated by the CDM EB. It is responsible for validating proposed CDM projects and verifying and certifying the emissions reductions of the registered CDM projects.<sup>17</sup>

## 4. Project Participant (“PP”)

The CDM Project Participants are the legal entities (both public and private) that develop and implement CDM project activities.<sup>18</sup> Project participants in China include project owners (“PO”) and co-operators, which refer to the Chinese funded or Chinese-holding enterprises undertaking the CDM projects in China and their foreign partners. They are responsible for the construction and operation of projects.

## 5. Other CDM-Related Institutions in China

Other CDM-related institutions mainly include provincial CDM Technology and the Service Centers and the CDM-related commercial service agencies. The Chinese Government has established 27 provincial CDM Technology and Service Centers to

<sup>15</sup> CDM project activities may be reviewed from the following aspects: (1) Participation qualification; (2) Project design document; (3) Baseline methodology and emission reductions; (4) Price of CERs; (5) Terms relating to funding and technology transfer; (6) Crediting period; (7) Monitoring plan; and (8) Expected sustainable development effectiveness.

<sup>16</sup> Designated National Authority is the one for CDM designated by Party to the Protocol. Each Party to the Kyoto Protocol must designate an authority which is granted responsibility for authorizing and approving participation in CDM projects.

<sup>17</sup> UNFCCC, *Designated Operational Entities*, available at <http://cdm.unfccc.int/DOE/index.html> (last visited on Mar. 20, 2011).

<sup>18</sup> UNEP, UNEP RISØ CENTRE ON ENERGY, CLIMATE AND SUSTAINABLE DEVELOPMENT, *LEGAL ISSUES GUIDEBOOK TO THE CLEAN DEVELOPMENT MECHANISM 11* (The UNEP Project CD4CDM, 2004), available at <http://www.uneptie.org/energy/information/publications/risoe/pdf/CDMLegalIssuesguidebook.pdf> (last visited on Mar. 20, 2011).

facilitate the development of CDM projects.<sup>19</sup> They are mainly responsible for publicizing the CDM, organising enterprises to register CDM projects, assisting enterprises with project appraisal, making the relevant documents and examining and approving potential CDM projects. In addition, the CDM-related service industry, such as consulting agencies and other intermediary and legal service providers, play an important role in developing CDM projects in China as the CDM operational rules and procedures are extremely detailed and technical.

## D. Legal Steps in Developing CDM Projects

Along with the international operational rules and procedures for the CDM, the legal steps in developing CDM projects in China are as follows (Table II-1):

Table II-1: Legal Steps in Developing CDM Projects in China

Phase	Step	Actor	Activities	Period	
<b>Application</b>	Submission	PO	Submit application required documents to NDRC	within 30 days	
	Expert Review	NDRC	Entrust organization for review of the proposed project		
	Submission	NDRC	Submit to the Board		
<b>Approval</b>	Approval	NDRC	Issue approval letter	within 20 days	
	Validation	DOE	Invited by PO to validate the project		
<b>Registration</b>	Registration	EB	Register the proposed project	within 8 weeks	
	Report	PO	Report to NDRC	within 10 days	
	Implementation & Monitoring	PP	PP	Implement project; monitor reductions; and make reports	
		PO	PO	Present NDRC & DOE reports	
<b>Issuance</b>	Verification & Certification	DOE	Verify the reductions; submit certification report to EB		
	CERs Issuance	EB	Issue the CERs	within 15 days	
	CERs Record	NDRC	Put CERs in file and record		

Source: Compiled by the author.

<sup>19</sup> China Sustainable Industrial Development Network, *China has Established 27 Provincial CDM Technical Service Center, available at <http://www.csid.com.cn/NewsInfo.asp?NewsId=68893>* (last visited on Mar. 20, 2011).

*1. Phase One: Procedures for CDM project application and approval are as follows:*

- Project application - Project owners, or together with its foreign partners, submit the CDM project application and the documents to NDRC;
- Expert review - NDRC entrusts relevant organizations for expert review of the proposed project, which shall be concluded within 30 days;
- Reviewed application submission - NDRC submits the project applications that have been reviewed by the experts to the Board; and
- Project approval - NDRC approves, jointly with the Ministry of Science and Technology ("MOST") and the Ministry of Foreign Affairs ("MFA"), projects based on the conclusion made by the Board, and issues approval letters accordingly. NDRC shall make a decision on project application within 20 days (excluding the expert review time) from the day the application is accepted.<sup>20</sup>

*2. Phase Two: Procedures for CDM project registration are as follows:*

- Project validation - Project owner invites DOE to validate the project for registration within 30 days;
- Project registration - The CDM EB shall automatically register the proposed CDM project activities if there is no objection within eight weeks since the date of receipt of the request; and
- Approval report - Project owner shall report to NDRC on the approval decision by the CDM EB within 10 days as of the date of receiving the notice from the Executive Board.

*3. Phase Three: Procedures for CDM project implementation are as follows:*

- Project implementation and monitoring - Project participants implement the CDM project, monitor the emissions reductions, and then make the reports. Moreover, the project owner is responsible for presenting NDRC and DOE project implementation and monitoring reports. NDRC is authorized to supervise the implementation of the project to ensure the quality of the activities; and
- Project verification - Contracted DOE verifies the emission reductions of the project activities and submits certification report to the CDM EB.

<sup>20</sup> The time limit for decision-making may be extended to 30 days, with the approval of the Chair or the Vice-chair of NDRC, if a decision could not be made within 20 days. The project applicant should be informed of such a decision and its reasons.

*4. Phase Four: Procedures for CDM project issuance are as follows:*

- CERs issuance - The CDM EB automatically issues CERs for the projects within 15 days since the date of receiving the request and informs its decision to the project participants; and
- CERs record - NDRC or other organizations entrusted by NDRC put the CERs issued by the CDM EB in file and record.

## **E. Regulation Concerning the Proceeds of CDM Projects in China**

Because the emission reduction resources are owned by the Chinese Government and the emission reductions generated by specific CDM project belong to the project owner, the revenues from the transfer of CERs shall be also shared by the Government and project owner, with the allocation ratio defined as below:<sup>21</sup>

- The Government of China takes a 65 per cent CER transfer benefit from HFC and PFC projects;
- The Government of China takes a 30 per cent CER transfer benefit from N<sub>2</sub>O projects; and
- The Government of China takes a 2 per cent CER transfer benefit from CDM projects in priority areas and forestation projects.

The revenues collected from CER transfer of CDM projects shall be used to support the activities on addressing climate change.

## **III. Legal Relationships Involved in Implementing CDM Projects in China**

Several legal relationships are involved in the implementation of CDM projects in China. These relationships mainly consist of administrative legal relationships between the Chinese Government and the CDM owners and investors, economic legal relationships and civil legal relationships between CDM projects participants and other entities involved in the implementation of the CDM.

<sup>21</sup> *Supra* note 6, art. 24.



## A. Administrative Legal Relationships

Administrative legal relationships may be involved in the process of implementing CDM projects. The major relationships are (1) the administrative permission legal relationship between the DNRC and CDM project participants, (2) the administrative trust legal relationship between the DNRC and the relevant organizations for expert review of the proposal CDM project, and (3) other administrative permission legal relationships involved in developing CDM projects with foreign investment.<sup>22</sup>

According to the regulations, “a CDM project to be implemented in China shall be approved by relevant departments under the State Council.”<sup>23</sup> “NDRC is China’s DNA for CDM.”<sup>24</sup> “Project owners shall submit NDRC project applications and documents as required. Relevant departments and local governments may facilitate such project application.”<sup>25</sup> There is an administrative permission legal relationship between the NDRC and project owner. The administrative action is the NDRC permitting the implementation of certain CDM project requested by project owners. In this administrative permission legal relationship, the NDRC is responsible for accepting a CDM project application, reviewing the application and making a decision whether: to approve the application while the applicants of CDM projects should submit project application documents in accordance with the Measures; to report to NDRC on the progress of the project; to assist in investigating; and to respond to the inquiries. The legal effect is that the CDM project participants obtaining the permission may be entitled to developing GHGs emissions reduction resources.

In addition, there is an administrative trust legal relationship. The Measures stipulates that: “NDRC entrusts relevant organizations for expert review of the applied project, which should be concluded within 30 days.”<sup>26</sup> According to this regulation, there is an administrative trust legal relationship between the NDRC and relevant organizations. In this legal relationship, the trustor is the NDRC and the trustee is the relevant organizations. The authority of the trust is the expertise review of the proposed project. In addition, the Measures state that: “NDRC submits those project applications reviewed by the experts to the board.”<sup>27</sup> Thus, the NDRC approves the applications totally based on expert conclusions. Clearly, the conclusion of the expert review may have the legal consequence of directly refusing some applications.

<sup>22</sup> Xiaoyi Jiang, *Legal Issues for Implementing the CDM in China* 211-7 (July 5, 2010) (unpublished Ph.D. dissertation, the University of Western Sydney).

<sup>23</sup> *Supra* note 6, art. 3.

<sup>24</sup> *Id.* art. 16.

<sup>25</sup> *Id.* art. 18, item 1.

<sup>26</sup> *Id.* art. 10, item 2.

<sup>27</sup> *Id.* art. 10, item 3.

Other administrative legal relationships can also be involved in developing CDM projects. With regard to the CDM projects with foreign partners and foreign investments, the implementation of these projects should undergo administrative approval by the department in charge of foreign economic relations and trade under the State Council or the department or local government authorized by the State Council.<sup>28</sup> If approved, the CDM project participants shall register with the State's competent department in charge of industry and commerce administration, acquire a business license and then start operation. In this case, there are administrative permission legal relationships between the Department of Foreign Investment Administration under the Ministry of Commerce and CDM project participants, State Administration for Industry and Commerce and the local Administrations for Industry and Commerce authorized by the State Administration, and the CDM project participants. The administrative actions are concerned with the administrative permission of developing a foreign investment project in China.

Based on the above analysis, some notes can be drawn. First, it is necessary for the government to have administrative management of CDM projects in China. The Chinese Government manages and supervises the implementation of CDM projects through the Measures as a legal basis. The necessity of this administrative management of CDM projects lies in the public interest. Although the CDM is market-oriented and must be carried out by project participants, its implementation also influences the realization of sustainable development, which belongs to the public interest and needs to be regulated by administrative measures. In this regard, the Chinese Government should not only have the power to manage the CDM projects, but also have the responsibility for promoting CDM projects through providing an effective guide to potential CDM participants.

Second, rationale for conducting the administrative permission for CDM projects in China is as follows: the Measures stipulates that it is "in accordance with the provisions of the UNFCCC and its Kyoto Protocol ratified and approved by China respectively, and the adopted by the COP . . ." <sup>29</sup> It can be seen that the UNFCCC, the Kyoto Protocol and the relevant decisions are the legal bases of establishing administrative permission of implementing CDM projects in China. This is relevant to whether the international treaties and conventions ratified and approved by China could be considered as sources of administrative law in China. Article 16 of the Administrative Permission Law of 2003 lays down:<sup>30</sup>

<sup>28</sup> For example, see Law of the People's Republic of China on Chinese-Foreign Equity Joint Ventures art. 13 (July 1, 1979) (P.R.C.), available at <http://www.china.org.cn/english/DAT/214773.htm>; (last visited on Mar. 20, 2011).

<sup>29</sup> *Supra* note 6, art. 1.

<sup>30</sup> *Administrative Permission Law* (2003) (P.R.C.), available at <http://www.gov.cn/english/laws/2005-09/07/>

Within the scope of the matters for which the procedure for administrative permission is instituted by superordinate laws, specific provisions on the granting of such permission may be formulated in rules. Also, additional procedure for administrative permission shall not be instituted in the specific provisions formulated in the regulations and rules for the granting of administrative permission for which the procedure is instituted by superordinate laws.<sup>31</sup>

The superordinate laws hereby refer to the laws enacted by National People's Congress and its Standing Committee and the regulations formulated by the State Council, but not the international conventions ratified by China.

With respect to legal practice in China, however, some international conventions and protocols may have legal effect after being translated into domestic legislation while others may be directly applied in a domestic context. In particular, any conventions and protocols ratified by China that concern the administrative management and remedies are sources of administrative law.<sup>32</sup> Moreover, in case of urgent climate change and implementing CDM projects, it would be too late to wait for the launch of new regulations or laws concerning the management of CDM projects, which would undergo a long and complex law-making process. Therefore, considering the legal practice and the characteristics of the CDM in its current state, it is reasonable to set up administrative permission for CDM implementation in China.

Third, there are some disputes over the legal effect of expert review.<sup>33</sup> Expert review is introduced to evaluate the eligible proposed projects and plays an essential role in approving the proposed projects. NDRC could only submit those project applications reviewed eligible by the experts to the Board and approve the projects accordingly. In this case, the expert review not only provides public participation, but also exerts public power over the administrative permission. The main reason for the significance of the expert review lies in the complex and technical characteristics of CDM projects. On the one hand, experts in climate change, its domestic and foreign legal frameworks, and hyper-technical CDM operational rules are needed to examine the legal eligibility of proposed projects. On the other hand, proposed projects demand technical expertise in order to evaluate their 'additionality.' Thus, it is necessary to conduct expert review, which consists of experts mastering technological knowledge and operational rules of the CDM before submitting the projects for approval. Moreover, the professional quality

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<sup>31</sup> *Id.* art 16.

<sup>32</sup> Zhijiao Wu, 清洁能源机制中的行政法律关系评析 [Analysis on the Administrative Legal Relationships Involved in the CDM], available at <http://www.acla.org.cn/pages/2008-4-14/p48020.html> (last visited on Mar. 20, 2011).

<sup>33</sup> *Id.*

of the experts also plays a significant role in promoting the implementation of CDM projects in China.

In spite of the necessity to establish expert review, ambiguities still exist. *E.g.*, standards for entrusting expert organizations and selecting qualified experts are neither specified nor clear.

Implementation of CDM projects in China is concerned with sustainable development. Therefore, it is necessary and rational to take administrative measures to manage CDM projects. The DNRC entitles the eligible CDM project owner's right to develop GHGs emissions resources through administrative permission. In the administrative trust legal relationship between the DNRC and the relevant organization, expert review is essential for approval of the proposed project due to the highly complex and technical procedures of CDM projects while some ambiguities exist and need to be defined. Besides, there are administrative legal relationships between the relevant departments and the CDM projects concerning foreign investment in order to promote and regulate foreign investment in China.

## B. Economic Legal Relationships

The Chinese Government adopts economic measures to facilitate the development of CDM projects. Two types of economic legal relationships exist in the implementation of CDM projects in China. The first one is the legal relationship in taxation, and the other one is the economic legal relationship arising from the CDM Board's responsibility of reviewing the price of CERs.

Not only is the Chinese Government attracting foreign investment through applying favorable taxation policies to CDM projects with foreign partners, but it also collects certain ratios of the revenue from the proceeds of CER transactions.<sup>34</sup> The legal basis of collecting CER proceeds is that the property right to emission reduction resource is owned by the Chinese Government according to the Measures. Rather, the proportional collection of the revenue is due to the emission reductions generated by specific CDM projects belonging to the project owner. The different allocation ratios of different types of the projects<sup>35</sup> demonstrate that the Chinese Government encourages energy

<sup>34</sup> For example, with the main purpose of encouraging the import of advanced foreign technology and equipment, the Chinese Government formulated the Circular of the State Council on Adjustment of Imported Equipment Taxation Policies in 1997 (the Circular) stating that: "Starting from January 1, 1998, imported equipment of domestic investment projects and foreign investment projects encouraged by the State shall enjoy exemption from tariff and import-stage value-added tax within the special scope." *Circular of the State Council on Adjustment of Imported Equipment Taxation Policies 1997* (the State Council of the People's Republic of China), available at <http://www.cn-teacher.com/yjyj/flyy/flyy1/200705/209340.html> (last visited on Mar. 20, 2011).

<sup>35</sup> According to Article 4 of the Measures, the priority areas for CDM projects in China are energy efficiency

efficiency improvement and renewable energy development through providing economic incentives to promote energy development in a sustainable way.

Due to multiple market failures<sup>36</sup> and in-part to protect China's interests and rights, it is one of the responsibilities of the CDM Board to regulate the price of CERs. According to the report of the State and Trends of the Carbon Market 2007,<sup>37</sup> China, as a dominant market leader in the CDM projects since 2002, truly influenced the overall market price through its informal policy of requiring a minimum acceptable price before providing DNA approval to projects.<sup>38</sup> Moreover, other countries were able to use China's price floor as a basis of negotiation of near-equivalent prices in their transactions as well.<sup>39</sup>

Under these circumstances, the Chinese Government's regulation concerning the CERs price, in certain degree, facilitates the implementation of CDM projects in China.<sup>40</sup> Although the CDM projects in China develop at an increasing rate and have obtained considerable economic profits so far, the CDM is still new for most of the potential CDM developers. Moreover, experts in the operational rules and technical aspects of the CDM are in very short supply. Therefore, the pertinent departments, which are equipped with certain experts in the CDM, should take the responsibility for guiding and supervising the CDM implementation in China. Staff with experience and relevant knowledge in the operation of carbon market may provide relatively updated and accurate market information to set the CERs price for the CDM developers. Consequently, it is necessary for the Chinese Government to review the CERs price before the CERs enter into the global carbon market.

### C. Civil Legal Relationships

Four types of civil legal relationships may be involved in the process of implementing CDM projects in China. The first one is a civil legal relationship based on transactions between the CER's seller and purchaser. The second one is a civil legal relationship based on the contract between CDM project owners and the DOEs. The third is a

improvement, development and utilization of new and renewable energy, and methane recovery and utilization.

<sup>36</sup> Market failure is a term used to describe a situation in which markets do not efficiently allocate goods and services. Prices do not reflect all publicly available information. Market failures are often associated with non-competitive markets, externalities or public goods. The existence of a market failure is often used as a justification for government intervention in a particular market.

<sup>37</sup> W.B. Karan Capoor & Philippe Ambrosi, *State and Trends of the Carbon Market 2007* (2007), available at <http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,contentMDK:21319781~pagePK:64257043~piPK:437376~theSitePK:4607,00.html> (last visited on Mar. 20, 2011).

<sup>38</sup> *Id.* at 32.

<sup>39</sup> *Id.*

<sup>40</sup> For details, see *supra* note 6, art. 15, item 4, para 1.

financial civil legal relationship emerging between the project owner and the financial institution, and finally, there may be a civil legal relationship based on the commercial service for developing CDM projects between the project owner and the CDM service institution.<sup>41</sup>

The first type is a transaction civil legal relationship. The benefits of implementing the CDM projects are ultimately achieved through CER transactions in carbon market. Thus, there is a civil legal relationship between CER sellers and purchasers, which is definitely the most significant factor in the process of developing CDM in China. In such a legal relationship, the CDM project owners sell emission reductions to CERs purchasers who would pay to the CDM project participants to get certain amount of CERs.

In accordance with the procedures of implementing CDM projects, project owners shall contract DOEs to validate the proposed project activity and to verify emission reductions of the project activity so as to prove real reductions in GHGs. Civil legal relationships, therefore, exist between the project owners and DOEs to validate and verify the project activity. In such a legal relationship, the project owner has the right to choose the same or different qualified DOEs to validate the project and verify its operation. The DOEs are paid to provide their expertise.

A financial legal relationship might emerge between the project owner and the financial institution in order to enhance the financial capacity of developing the potential CDM project. This relationship often exists in the circumstance of implementing the unilateral CDM projects whose owners may lack capital to put it into operation. In this case, a loan agreement is concluded. The owner obtains a loan from the financial institution to develop the CDM project.

Finally, a service legal relationship can also be involved in developing CDM projects in China. With the boom of CDM projects in China and the increasing demand for expertise dealing with complex CDM projects, commercial organizations providing relevant services for CDM development are set up. The major organizations are CDM consulting companies and firms providing specialized legal services for the CDM. Hence, for the CDM participants seeking professional services for the CDM, civil legal relationships would be formed.

## IV. CDM-Related Contracts

In light of the various civil legal relationships involved in the implementation of CDM

<sup>41</sup> Jiang, *supra* note 22, at 219-220.

projects in China, project participants tend to adopt a contractual approach to discuss the major issues and define their rights and obligations. Accordingly, the Emission Reduction Purchase Agreement (“ERPA”), the Validation and Verification Contracts, the Loan Contract, the Service Contract may be negotiated for each project. Although these contracts are generally tailored to meet the specific circumstances of projects and parties involved, for any CDM project, the major issues in different types of contracts could be identified, respectively. In this circumstance, this part introduces the CDM-related contracts and analyses.

## A. The Emission Reduction Purchase Agreement

Sale of CERs from a CDM project is similar to the sale of any commodity, while a CDM project bears particular risks and pitfalls due to its complex and technical operational rules and procedures.<sup>42</sup> However, most risks and pitfalls are manageable through the deliberate considerations on the ERPA. In this sense, among all the CDM-related contracts, ERPA is regarded as the key of the CDM project implementation, determining the destination of CERs. It functions as the legal basis of defining legal rights and obligations of the CERs purchasers and sellers, and how the CERs arising from that project would be sold. Thus, it is of great significance to research ERPA with a view to avoiding the surmountable risks and pitfalls in the implementation of CDM projects.

In addition, most ERPAs with complex and detailed items are often provided by the CERs buyers. These kinds of ERPAs are likely to protect the buyer’s interests while disadvantaging the CER seller’s interests and rights in the transaction.<sup>43</sup> Because most ERPAs are in English, the cooperation between buyers and project developers in China whose mother language is Chinese would be difficult. Therefore, it is necessary to fully understand the ERPA and protect the interests and rights from a project developer’s perspective.

In spite of the specific circumstances of the project and the parties involved, the key legal issues to be addressed in an ERPA for any CDM project may include the objective of the contract, legal title to CERs, transfer of legal title to CERs, quantity and purchase price of CERs, cost payment occurring in project implementation, liability, indemnity and dispute resolution.

In this course, the objectives of an ERPA should be first identified. They might be CERs, Verified Emission Reduction (“VER”) or even Emission Reduction (“ER”).<sup>44</sup>

<sup>42</sup> *Supra* note 18, at 99.

<sup>43</sup> *Id.* at 112-8.

<sup>44</sup> *Id.* at 98.

Strictly speaking, the primary objective of ERPA should only be CERs as they will ultimately be used for compliance purposes. In reality, the contract may also stipulate transfer of VER or even ER.

There is a huge difference between ER, VER and CER. The ERs, produced with the operation of CDM projects, turn into VERs after the verification by DOEs. Then, the VERs would turn into CERs after the examination by the CDM EB. Furthermore, the different objectives of the contract have different legal effects for sellers and buyers. Buyers may take more risk in purchasing ER or VER than CER as there is a possibility that the ERs could not be verified by DOEs or the CDM EB refuses to issue CERs. Accordingly, the purchase price is relatively lower for ER and VER. The transfer approach and time are also different. Sellers are likely to receive payment under the ERPA upon the transfer of VERs through the submission of a Verification Report, while buyers are likely to pay for the CERs when they are issued in the national registry account. Given such differences, the nature of the rights being sold must be stated clearly in the ERPA.<sup>45</sup>

In addition, it should be noted that current CDM contracts tend to deal with CERs only. The VER and ER were likely to be chosen as the objective of ERPA during the early period of CDM development before the CDM EB began to issue CERs.<sup>46</sup>

It is important that contractual warranties should be provided in the ERPA to the effect that sellers have full right and title to emission reductions and have not previously transferred to another party.<sup>47</sup>

In China, the government claims a pre-existing right to emission reduction. However, the emission reductions generated by a specific CDM project belong to project owners and therefore they can be sold by project owners. In this sense, revenue from the transfer of CERs shall be owned jointly by the Chinese Government and project owners.<sup>48</sup>

How and when CERs are to be sold and transferred to buyers should also be clearly provided by the contract. The exact point at which the legal title to CERs transfers should be agreed by parties and clearly provided in the ERPA. Does legal title transfer upon the submission of a Verification Report or the issuance of CERs by the CDM EB? Or is title transfer contingent upon issuance into the buyer's account and receipt of payment from the buyer?<sup>49</sup>

The different approaches to transfer of legal title to CERs has different meaning to

<sup>45</sup> *Id.* at 112-3.

<sup>46</sup> *Id.*

<sup>47</sup> *Id.* at 113.

<sup>48</sup> *Supra* note 6, art. 24.

<sup>49</sup> *Supra* note 18, at 112-3.



sellers and buyers. Sellers want to ensure that buyers are obligated to pay for the CERs before they receive legal title to CERs, while buyers generally want to receive legal title to CERs as quickly as possible. In this scenario, the ERPA should clearly provide the point at which legal title is deemed to have passed from seller to buyer after their negotiations.<sup>50</sup>

The contract should clearly specify the details about CERs, which include the quantity of CERs being acquired, the timeframe in which they are to be acquired and the CER unit price.<sup>51</sup>

Sellers want to make sure of their delivery obligations under the ERPA in order to plan the operation of the project, while buyers prefer clarity about total amount of CERs which it should expect from the seller and their obligations to pay under the ERPA for the CERs.<sup>52</sup>

In practice, CERs are sold in two major ways, as a spot transaction or a forward sale. The spot transaction is a direct and immediate sale of CERs which have been already generated by a project over a certain period and the forward sale is a direct sale of CERs from a future activity of a CDM project.<sup>53</sup> Under the spot transaction, the contract can specify the quantity of CERs being acquired and provide a fixed unit price for each CER delivered.<sup>54</sup> The forward sale contract is flexible. The contract may frame a delivery schedule for the CERs which accords with the expected performance of the project according to the Project Design Document (“PDD”). Furthermore, due to the uncertainties of future project performance and unstable CER market prices, the contract can set up minimum delivery obligations for sellers within the expected project capacity as well as link the price to the market price for CERs at the time of delivery. The ERPA should also clearly provide specifications for an option to purchase further CERs from the project.<sup>55</sup>

Although China dominates the global carbon market, most project participants cannot have the desirable CER unit price.<sup>56</sup> The reason for the relatively low CERs price is that project participants in China cannot sell their CERs directly in the international carbon market. Thus, brokers make substantial profits through buying CERs from project owners in China and selling them in the carbon market at a higher price. In this

<sup>50</sup> *Id.*

<sup>51</sup> *Id.* at 116.

<sup>52</sup> *Id.* at 113-4.

<sup>53</sup> *Id.* at 101.

<sup>54</sup> *Id.* at 102.

<sup>55</sup> *Id.*

<sup>56</sup> This is in accordance with the results of field work conducted by the author in December 2008. The interview and written survey of the field work were approved by Macquarie University Ethics Review Committee, reference number: HE26SEP2008-D06093 on September 26, 2008.

circumstance, it is necessary for China to set up a carbon exchange and direct access to the carbon market.<sup>57</sup>

The contract should also contain provisions relating to the payment costs leading to the creation of CERs.<sup>58</sup> Unlike a common project, creating CERs may involve a significant amount of costs at various stages of developing the project, including registering a CDM project, monitoring emission reductions, hiring a DOE to undertake verification and certification, etc. In this regard, sellers should negotiate with buyers about the CERs creation costs. The contract should specify what the costs include and an allocation of costs.<sup>59</sup>

Legally speaking, sellers would be responsible for covering all costs involved in creating CERs.<sup>60</sup> Also, buyers could provide upfront payment for CERs to sellers to cover the project implementation related costs in recognizing the project developer's limited financial capacities for paying upfront. This amount would then be deducted from future payment due for CERs under the ERPA.<sup>61</sup>

In addition, commercial profits apart from selling CERs can also be obtained through developing certain types of CDM projects, *e.g.*, the power project, where developers can make profits through selling electricity. In these cases, there should be provisions concerning share of proceeds under the ERPA.<sup>62</sup>

The contract should include clauses relating to liabilities for each party under the ERPA and identify actions leading to a loss or a breach of the ERPA. Under the ERPA, the actions or events which may constitute a breach of the contract include the CERs generation or transfer failure, third-party actions, *force majeure*, or any other event that the buyers think is possible to exert negative influence on the performance of CDM projects.<sup>63</sup>

Generation failure happens when the annual amount of CERs generated does not reach the objective in the contract. Legally speaking, sellers should be liable for the failure, whereas most contracts provide that if there are enough surplus CERs generated previously to offset the shortage, a CER shortage of that year does not constitute a generation failure.<sup>64</sup> Likewise, transfer failure refers to the shortage of CERs transferred

<sup>57</sup> In fact, China has established three domestic environmental exchanges. Three domestic environment and energy exchanges were launched in Shanghai, Beijing and Tianjin in 2008.

<sup>58</sup> For example, "The seller will be responsible for the costs at certification and issuance of CERs stage of the CDM project." For more details, *see supra* note 18, at 116.

<sup>59</sup> For details, *see id.*

<sup>60</sup> *Id.* at 117.

<sup>61</sup> *Id.*

<sup>62</sup> For details, *see id.* at 97.

<sup>63</sup> *Id.* at 116-8.

<sup>64</sup> *Id.* at 97.

to buyers. If there are enough surplus CERs transferred previously to offset the shortage, the CERs transfer shortage this year does not constitute a transfer failure.<sup>65</sup>

The agreement on the events of default related to CDM project is very special. The scope of *force majeure* is a matter for negotiation. Sellers want to ensure that any potential disasters that befall the project will be covered by the *force majeure* provision, while many ERPA clearly provide that any project performance seriously falling behind the project plan is deemed a breach of contract regardless of the reasons.<sup>66</sup> Therefore, both parties, the seller in particular, should carefully consider their liabilities and indemnities under the ERPA.

Dispute resolution arising under a CDM project challenges project developers and CER purchasers. Due to their nature, CDM projects involve cross-border transactions between entities which may be from different countries. Besides, the contracts are drafted in a new and developing area of law in which the local courts may not have experience. It is therefore essential to find an acceptable resolution for both parties when disputes arise.<sup>67</sup>

There have been many dispute mechanisms used by project participants and CER buyers to date. The Alternative Dispute Resolution (“ADR”), *e.g.*, discussion, negotiation, mediation, is preferable if a dispute arises. Both parties are obliged to friendly negotiations and choose a mutually acceptable solution in the first instance. This obligation should be reflected in the EPRA. If the negotiations fail within a certain time frame, formal dispute resolution procedures should begin.<sup>68</sup>

Both parties should agree in advance on choosing the dispute resolution mechanism in the contract. The major dispute resolution procedures are arbitration and litigation. Arbitration is often preferred in international commercial transactions because it is more neutral and efficient. Similarly, carbon buyers have preferred arbitration as a means of dispute resolution. However, arbitration fees are quite expensive, particular for sellers in China. In this regard, the responsibility of undertaking such expensive costs should be considered when choosing a resolution mechanism.<sup>69</sup>

Another mechanism is litigation. First, litigation is a potential time consuming and expensive option for resolving international commercial disputes. There may also be a prolonged process to enforce the judgment. Second, in the CDM project case, the seller and the buyer should choose the law governing the contract. However, there are many difficulties in choosing one jurisdiction’s laws over another. It may place one party at a

<sup>65</sup> *Id.* at 98.

<sup>66</sup> *Id.* at 118.

<sup>67</sup> *Id.*

<sup>68</sup> For details, *see id.* at 120-1.

<sup>69</sup> *Id.* at 120.

disadvantage. Moreover, local courts may not have the relevant experience to adjudicate a CDM contract. Under this circumstance, legal advice is needed for sellers and buyers to make them familiar with the choice of law and the enforceability of the contract in that jurisdiction.<sup>70</sup>

As a consequence, the current ERPA mode is provided by CERs buyers, most of which have much more financial capacities than sellers. Therefore, CER sellers should fully understand the complicated provisions in the contracts and attach great importance to protect their rights and interests under the EPRA.

## B. Validation and Verification Contracts

In the process of developing a CDM project, there are two types of contracts between CDM project developers and DOEs, which are mainly commercial certification companies. First, project ideas should be validated through the DOEs regarding the compliance with the operational rules. An independent verification of the emission reductions by a DOE is the precondition for issuance of CERs by the CDM EB. The project owner is responsible to find appropriate DOEs and contract to validate the proposed project and to verify emission reductions. However, the effectiveness of DOE intervention in China and the credibility of the emissions reduction are brought by validation and verification contracts.

Third party validation and verification systems lie in the heart of CDM. The DOEs are supposed to be arbitrary not only in validating the expected CERs and of the proposed project before submission to DNA, but also in verifying the issuance of CERs before certification by CDM EB. In this regard, DOEs have the overwhelming power to decide the implementation of CDM projects.

Nonetheless, the effectiveness of DOEs can be questioned. First of all, highly qualified validators and verifiers are much needed to deal with CDM issues. There is no objective standard for validators and verifiers to make judgments and they come to the conclusion of CDM projects with their own experience and expertise.<sup>71</sup> Thus, the conclusion may vary a lot between different validators or verifiers. In addition, the asymmetric information between the CDM owner and DOE undermines the development of CDM projects in China. Currently, there are no Chinese-owned DOEs. This situation would displace the CDM project owners in China a disadvantage in that it would be more difficult for project owners and developers to gain registration from

<sup>70</sup> *Id.* at 121.

<sup>71</sup> Paula Castro & Axel Michaelowa, *Empirical Analysis of Performance of CDM Projects* 69 (2008) (on file with Institute of Political Science, University of Zurich), available at <http://www.indiaenvironmentportal.org.in/files/empirical-done.pdf>; (last visited on Mar. 20, 2011).

the EB. In addition, language barriers could make it difficult for Chinese CDM project developers to communicate with DOEs because most of them are from Japan and Europe.

The credibility of DOE's performance is also problematic. Recent CDM projects in China have relatively low CER issuance rate. It means there is a gap between issued CERs and expected CERs. The validation process and the role of validators are the ground for the overestimation of CERs because validators – commercial entities – have an interest to collude with the audited project developers as they are hired by the project developers.<sup>72</sup> As many project developers are initiating more than one project, validators have an incentive to let the projects pass with the forecast of CERs in the PDD to get future assignments from that developer.<sup>73</sup> Further, this is exacerbated by a fierce competition between validators, with severe downward pressure on price and few effective controls on quality.<sup>74</sup>

The verification process has the same problem. The verifiers are paid by project developers and thus are reluctant to contradict them. Recently, because of the widespread issue of the credibility of DOEs, the CDM EB has made supplementary review of CDM projects after the verification in order to tighten the standards within the CDM. This challenges the independent role of verification and the meaning of its existence.<sup>75</sup>

Given all these problems of the validation and verification contracts, there is a need to shift payment for DOEs services from project developers to the CDM EB itself or to find ways to establish truly independent the third party's audit of CDM projects.<sup>76</sup>

### C. Loan Contract

In the case of developing a unilateral CDM, the project owners would develop a CDM project by themselves, obtain the necessary financing, register it with the CDM authority, receive all or most of the certified project CERs and then bank, lease or sell them in the international market.<sup>77</sup> Hence, the project owners may contract financial institutions to get the necessary funds needed by developing a CDM project in China. The project owners should carefully consider the cost of the loan contract before they starting a CDM project.

<sup>72</sup> *Id.* at 67.

<sup>73</sup> *Id.*

<sup>74</sup> *Id.*

<sup>75</sup> *Id.*

<sup>76</sup> *Id.*

<sup>77</sup> For details, see *supra* note 18, at 48-9.

## **D. Service Contract**

The CDM-related service contract plays an important role in implementing CDM projects in China. Basically, foreign buyers need the assistance of consulting agencies in developing CDM projects in China. Moreover, consulting agencies manage and develop the CDM projects on behalf of the project owners throughout the whole process due to the fact that most project owners rarely have the CDM-related expertise. The project owners, instead, are only responsible for constantly providing the relevant documents and information to the consulting agencies as required.

In spite of the consultant's significant role for CDM projects, there are no unified management and standards for the CDM consulting industry in China. In this scenario, many disputes may arise under a CDM services contract. Project participants and consulting agencies should therefore negotiate carefully the responsibilities and rights of both parties and how any disputes arising from CDM services would be resolved.

In summary, this part introduced and analyzed CDM-related contracts. The ERPA is importance in the process of developing CDM projects. However, most of the purchase agreements are provided by the seller, putting the buyer at a disadvantage. In this case, the CDM project developers should carefully study the ERPA and effectively protect their interests and rights. In addition to ERPA, project owners should contract DOEs to validate the proposed project and verify the CERs. Recently, the validation and verification contracts to a certain extent undermine the performance of CDM as a result of extremely complex and technical CDM operational rules and procedures. Thus, there is a need to improve the validation and verification schemes. Loan contracts may also be necessary for unilateral project owners to obtain the financing to implement the potential project. Finally, the CDM service contract plays an indispensable part in promoting the development of CDM projects in China. Nonetheless, both parties should pay particular attention to define their responsibilities and rights and the dispute resolution under the service contract due to the lack of unified regulation for managing CDM related service industries in China.

## **V. Assessment of Key Legal Issues for Implementing CDM Projects in China**

Under the existing legal frameworks analyzed above, there are some legal issues which may undermine or promote the development of CDM projects and sustainable

development in the context of China. This part discusses these concrete legal issues and analyzes their impact on CDM projects and sustainable development.

## A. Ownership regarding CERs in China

A CER is a valuable commodity created by the CDM as well as the destination of a CDM project. Therefore, the rights and benefits associated with emission reductions generated by CDM projects are very significant for project participants. However, as the CER is a relatively new concept, little consideration has been given to who will be legally entitled to any benefits from greenhouse gas reduction (and therefore entitled to CERs). Few nations have domestic laws that recognize CERs or determine the way of allocating legal ownership.<sup>78</sup> Therefore, it is crucial for host countries to consider the ownership issues with respect to CERs and whether they are sovereign or private rights.

The Chinese legal system has not clearly defined the legal nature of CERs and who has the right to them. The Measures only address ownership issues of CERs as follows:

[E]mission reduction resource is owned by the Government of China and the emission reductions generated by specific CDM project belong to the project owner, revenue from the transfer of CERs shall be owned jointly by the Government of China and the project owner.<sup>79</sup>

According to this provision, GHGs reduction is considered to be a ‘natural resource’ and therefore the property of the Chinese Government. The Chinese Government also allows eligible private CDM project owners to enter into concession arrangements to manage these resources and create CERs from them. Based on the fact that CERs are a sovereign right, the Chinese Government may take a proportion of the CERs from the project and revenue from the transfer of CERs, which are owned jointly by the Chinese Government and the project owner.<sup>80</sup>

A problem may arise if these provisions about the CERs are in violation of existing legislation in China. Section 1, Article 9 of the Constitution of the People’s Republic of China 1982 states that: “All mineral resources, water, forests, mountains, grasslands, unreclaimed land, beaches and other natural resources are owned by the state, that is, by the whole people.”<sup>81</sup> In a sense, there is no clear indication in Chinese law that the

<sup>78</sup> *Id.* at 65.

<sup>79</sup> *Supra* note 6, art. 24.

<sup>80</sup> *Id.* art. 24.

<sup>81</sup> *Constitution of the People’s Republic of China* art. 9, item 1 (Dec. 4, 1982) (P.R.C.), available at <http://english.people.com.cn/constitution/constitution.html> (last visited on Mar. 20, 2011).

emission reduction resource is classified as a natural resource. In another sense, even if assuming that the GHG reduction is a natural resource, the statement in the Measures that the emission reduction resource is owned by the Chinese Government does not comply to the relevant provision in the Constitution that all the natural resources are owned by the state.<sup>82</sup> It can be concluded that the existing Chinese legal system has not clearly defined legal nature of property rights in CERs. However, in light of inevitability of reducing GHGs and trend of carbon trading in the future, it is necessary to ensure the legitimate interests and rights of both parties of carbon trading through defining the exact nature of property rights in CERs. Therefore, the role of property rights in implementing market mechanism in China is one of the most significant parts and the legal strategy for CERs is much needed in China. Therefore, it is necessary to review the current ownership issues concerning CERs in China.<sup>83</sup>

First, the legal nature of CERs needs to be clarified. The Chinese legal system has given little consideration to clearly defining the legal nature of CERs. However, the Chinese legal arrangement takes a property-based approach to environmental protection; the right to CERs is also considered to be a property right.<sup>84</sup>

The traditional environmental legal regime lies between private, public and common property right, which are mainly divided based on different owners. Private property right refers to ownership by individuals, while public property right refers to ownership by a governmental body. Common property right in environmental legal regime is a principle according to which the environment or resources are held indivisibly rather than in the names of the individual members or by the government. Thus, instead of being owners of the environment and resources, its members are held to be trustees for future generations.<sup>85</sup> Some scholars argue that clear and full ownership rights should be given to CDM project owners and safeguarding Chinese national interests by holding back a specific proportion of CERs from each CDM project in order to reduce the high investment risk for foreign investors.<sup>86</sup>

However, some regulatory control has been inevitably imposed on all citizens in a certain country and in restraint of any potential abuse of a commercially privileged

<sup>82</sup> See also Mingyuan Wang, *Supervision of Clean Development Mechanism Projects in China—Illusory Rules of Law and Real Government Intervention*, 11 ASIA PAC. J. ENVTL. L. 121, 129 (2008).

<sup>83</sup> *Id.*

<sup>84</sup> For the definition of the property-based approach to environmental protection, see Jonathan H. Adler, *Free & Green: A New Approach to Environmental Protection*, 24 HARV. J. L. & PUB. POL'Y (2001).

<sup>85</sup> For more details, see ELINOR OSTROM, *PRIVATE AND COMMON PROPERTY RIGHTS* (2000), available at <http://encyclo.findlaw.com/2000book.pdf> (last visited on Mar. 20, 2011).

<sup>86</sup> See e.g., Tobias Koch, *Proposal for Further Development of Chinese CDM Rules*, Presentation to the Conference on Financing Renewable Energy Projects in China (May 19-20, 2005), available at <http://www.erec.org/projects/finalised-projects/building-res-in-china/conference.html> (last visited on Mar. 20, 2011).



position.<sup>87</sup> State intervention has silently generated a novel species of property – a category of ‘regulatory property’ – which stands the traditional paradigm of private property on its head.<sup>88</sup> In this intervention of the property norm, an overriding control on specific categories of vital resource – let us call this control a form of ‘regulatory property’ – is confirmed to the public, who, by force of consumer choice, can determine whether, how and by whom a resource may be exploited.<sup>89</sup> The regulatory property is with government agencies allocating and managing inalienable rights.<sup>90</sup> Actually, most of today’s ‘property rights’ markets trade in regulatory property rather than private property.<sup>91</sup>

In the case of China, the regulatory property rights regime is a more appropriate model. Establishing a regulatory property right for CERs may be a great benefit to sustainable development in the long term. Taken individually, the CER means enormous amounts of money to CDM project owners. If establishing a private property right in CERs, it would be possible that the eligible CDM project companies with their ‘Economic Man’<sup>92</sup> attribute may pursue the maximum economic profits brought by selling CERs regardless of the environmental aspect of developing the CDM projects. Although the projects need to be approved to meet Chinese sustainable development criteria and the CDM rules, the project owners may conduct this for the sake of getting project approval with the purpose of making money rather than considering environmental aspect. As a result, they may have a tendency to sell the emission reductions from CDM projects rather than spending money on promoting technological innovation. This is because the profits coming from a CDM project’s implementation has the possibility to be larger than spending money and energy on technological innovation. Therefore, the Chinese Government should play a significant role in balancing the advantages and pitfalls of implementing CDM projects and carbon market. In this scenario, it is reasonable to establish regulatory property rights of CERs in China.

For the above-mentioned reasons, CERs should fall within a regulatory property rights regime with the following guidelines. First, the emission reduction resource should be owned by the project owners. Second, in order to avoid negative effects,

<sup>87</sup> Kevin Cray, *Regulatory Property and the Jurisprudence of Quasi-Public Trust*, SING. J. LEGAL STUD. 58, 82 (2010), available at <http://law.nus.edu.sg/sjls/articles/SJLS-Jul10-58.pdf> (last visited on Mar. 20, 2011).

<sup>88</sup> *Id.* at 58.

<sup>89</sup> *Id.* at 66.

<sup>90</sup> Bruce Yandle, *Grasping for the Heavens: 3D Property Rights and the Global Commons*, 10 DUKE ENVTL. L. & POL’Y F. 13, 30 (1999), available at <http://www.law.duke.edu/Journals/10DELPHYandle> (last visited on Mar. 20, 2011).

<sup>91</sup> *Id.* at 16.

<sup>92</sup> It is a term used in classical economic theory (see *Laissez-Faire Economics*), denoting the individual’s rational deployment of labor or resources in the marketplace, in systematic pursuit of his or her own selfinterest.

caused by pursuing maximum economic benefits, and to balance public and private interests, the regulatory property rights in CERs should be established. Under such circumstances, the project owner is the seller, while the Chinese Government represents the society allocating and managing emission reductions, as well as determine whether, how and by whom a CER may be exploited. On this ground, the Chinese Government may allocate the revenues from the transfer of CERs.

## B. Marketing of CERs

In addition, the Chinese Government has set a fixed floor price for CERs generated in China.<sup>93</sup> Some scholars argue that the regulation of CER prices does not conform to the principle of economics that markets decide price and could also pose a problem to the global price.<sup>94</sup> Within a regulatory property rights regime, the Chinese Government needs to regulate CER prices. Because the CDM is relatively new and technical, it requires expertise to develop projects in the level of the global carbon market. In fact, CDM experts are not widespread in China and most of them are working for governmental institutions.<sup>95</sup> Moreover, most CDM project owners in China lack the concomitant knowledge and information regarding the implementation and marketing of CDM projects. They often resort to CDM consulting companies and sell their CERs through the CDM brokers in the international carbon market. In this sense, CDM projects in China would probably be at a disadvantage without the support of the government.

The current trend of the carbon market shows that the Chinese Government's responsibility in fixing the floor price for CERs largely decides the current market price of CERs due to China's dominance in the international CDM carbon market.<sup>96</sup> In this regard, the direct price fixing policy in China not only protects Chinese national and CDM project owners' interests, but also guarantees that CERs gain optimal value in the international carbon market.

## C. Participation Eligibility

According to the CDM-related legislation in China, only Chinese funded or Chinese-

<sup>93</sup> *Supra* note 6, art. 15, item 4.

<sup>94</sup> Koch, *supra* note 86.

<sup>95</sup> Most of CDM project owners do not have the corresponding expertise. At the initial stage of the development of CDM projects in China, the CDM capacity buildings were for the government officials. However, this situation has changed as more and more projects get registered.

<sup>96</sup> "China, as dominant market leader in the CDM projects since 2002, influenced the overall market price through its informal policy of requiring a minimum acceptable price before providing DNA approval to projects." See Capoor and Ambrosi, *supra* note 37, at 32.

holding enterprises within the territory of China are eligible to conduct CDM projects with foreign partners.<sup>97</sup> A Chinese partner must own at least 51 per cent of the shares in a CDM project.

Although the foreign majority ownership of CERs tries to maintain the initiative of Chinese CDM developers in implementing CDM projects, this regulation could actually undermine the development of CDM projects in China. First, the regulation on the project ownership could frustrate the potential investors. Many factors, including the investment in a CDM project, the technology transfer and the economic profits in particular, are significant when investors are considering the participation in a CDM project in China. They usually want to hold a larger share in CDM project ownership or take the initiative in implementing a CDM project in order to protect their own interests. By comparison, the Chinese project developers, who lack the funds and the clean technology to reduce emissions. Moreover, all of the CER proceeds cannot be obtained until a transaction is made in the international carbon market. In this circumstance, the project ownership limit could have an adverse impact on the implementation of CDM projects in China, making the potential investors abandon directly investing in projects in China, instead, and choose to invest in other host countries or buy the CERs in the carbon market.

Second, this unfavorable position for investors not having a majority interest may pose problems for the introduction of technical know-how, which is regarded as one of the key factors leading to a low carbon economy in China.<sup>98</sup> Also, the intellectual property rights of transferred technologies remains weak both at home and abroad.<sup>99</sup> In this case, most investors are more cautious about transferring their advanced technologies under the existing legal frameworks in China.

Finally, the limitation in the CDM project ownership makes it impossible to allocate the CERs according to ownership structure.<sup>100</sup> Otherwise, the foreign partner, who is expected to invest more funds and technologies than the Chinese partner in CDM projects, could be allocated relatively fewer CERs and accordingly obtain less proceeds from selling CERs. As a result, the rearrangement about the allocation of CERs and CER proceeds between the investors and the project owners would complicate the implementation of CDM projects in China. It will be thus beneficial to allow CDM

<sup>97</sup> *Supra* note 6, art. 11.

<sup>98</sup> *See e.g.* 中国国民经济和社会发展第十二个五年规划纲要 [China's Twelve Five-Year Plan], Ch 21, available at [http://www.gov.cn/2011lh/content\\_1825838.htm](http://www.gov.cn/2011lh/content_1825838.htm) (last visited on Mar. 20, 2011).

<sup>99</sup> For details, *see* below section.

<sup>100</sup> "The parties to the venture shall share the profits, risks and losses in proportion to their contributions to the registered capital." *See supra* note 28, art. 4, para 3, available at [http://www.china.org.cn/business/laws\\_regulations/2007-06/22/content\\_1214773.htm](http://www.china.org.cn/business/laws_regulations/2007-06/22/content_1214773.htm) (last visited on Mar. 20, 2011).

projects to be operated with foreign majority in China.

## D. Technology Transfer for Sustainable Development in China

In many instances international environmental regimes include provisions of positive measures to support clean technology transfer to developing countries because technological advances are often the key to environmental gains.<sup>101</sup> Likewise, the CDM was designed to assist the developing countries in realizing sustainable development through technology transfer and investment. However, the promotion of technological innovation and diffusion in developing countries has not been in real terms very successful.

As it is a competitive project-based CER generating and trading scheme, the pursuit of cost-effectiveness and commercial profits dominates the CDM scheme. In addition, the actual ownership of the technology and know-how in project implementation process is in the hands of private ownership, which is subject to trade secrecy and intellectual property rights under the TRIPs agreement.<sup>102</sup> Accordingly, they are subject to the royalties and sure licensing fees and such technology is diffused on commercial market terms.<sup>103</sup> Meanwhile, there are inadequate funds and loose legal systems to support technology transfer in both the international and domestic environmental regimes. Against the existing legal and institutional background therefore, developing CDM projects would not actually overcome the barriers to effective technology transfer in China.

## E. Public Participation

In the process of implementing CDM projects in China, two phases are involved in public participation. One is the expert review of the project proposal, and the other is the stakeholders' consultation in Project Design Document ("PDD") preparation.

As mentioned earlier, NDRC entrusts relevant organizations for expert review of the proposed projects and approves the projects based on the review conclusion made by experts.<sup>104</sup> Hence, opinions from the experts about 'additionality' of the proposed

<sup>101</sup> Daniel C Esty & Maria Ivanova, *Globalization and Environmental Protection-A Global Governance Perspective* 15 (Yale Center for Environmental Law and Policy, Working Paper No.0402, 2004). See also CHERTOW, M. & D.ESTY (ED.), *THINKING ECOLOGICALLY: THE NEXT GENERATION OF ENVIRONMENTAL POLICY* (1997).

<sup>102</sup> This is short for Agreement on Trade-Related Aspects of Intellectual Property Rights, Annex 1C of the Marrakesh Agreement Establishing the World Trade Organization, signed in Marrakesh, Morocco on April 15, 1994.

<sup>103</sup> Zainal Abidin Sanusi, *Technology Transfer Under Multilateral Environmental Agreements: Analyzing The Synergies* 2 (UNU-IAS, Working Paper No. 134, 2005).

<sup>104</sup> *Supra* note 6, art. 15.

CDM project plays a decisive role in approving the projects. Apparently, the expert review has exceeded the boundary of general public participation and actually exercises the public power of administrative permission. The expansion of the right of expert review is due to the technical and complex natures of CDM projects. It is thus reasonable and necessary to enhance the influence of expert review when approving CDM projects in China.

In addition, a CDM project must receive a national approval from the DNA, which is based on reviewing how the project will contribute to sustainable development. To this end, the PDD should explicitly show that to what extent sustainable benefits are expected by a project through presenting the documentation related to the environmental impact assessment of the project and describing how the relevant local stakeholders are allowed to participate and provide comments and feedback on the project. However, the Chinese Government has not satisfactorily fulfilled this CDM requirement. The following are the reasons for this shortfall. First, under the existing institutional framework, there is no specific procedure for carrying out stakeholder consultations for CDM projects in China. Then, with respect to the consultation process described in the PDD, there still lacks transparency and an effective way to reflect the local population's demands. Most of the CDM projects in China do not take stakeholder consultation seriously in their PDD.<sup>105</sup> Some of the CDM projects do not state in their PDDs what kind of consultation process they organize at all; most of them may use a written survey or questionnaire as a tool to gather comments; and only a few of them may organize a public meeting or public discussion with the local population.<sup>106</sup> Given the written media limiting the range of stakeholders allowed to participate, it seems that the current stakeholder consultation process in China is not sufficient for gathering opinions from local residents and reflecting their concerns.<sup>107</sup> Therefore, the public participation needs to be improved when developing CDM projects in China.

## **F. Lack of Basic Energy Law**

The main task of implementing CDM projects and tackling climate change is to reduce carbon emissions through improving energy efficiency and developing renewable energy. Although the Chinese Government has formulated a series of specific policies and laws with a view to promoting energy efficiency and development of renewable energy, China still lacks basic energy law to support CDM project implementation and energy utilization in a sustainable way.

<sup>105</sup> Castro & Michaelowa, *supra* note 71, at 52-9.

<sup>106</sup> *Id.*

<sup>107</sup> *Id.*

Now, basic energy law is indispensable in China, because it may provide more systematic and comprehensive norms of specific conduct in certain area. The Law on Legislation of the People's Republic of China 2000 stipulates that: "State legislative power shall be exercised by the National People's Congress and its Standing Committee. The National People's Congress ("NPC") enacts and amends basic laws and the Standing Committee enacts and amends laws other than those that shall be enacted by the NPC."<sup>108</sup> In this respect, the basic law has more binding effect than specific laws.

These large energy demands and energy security are critical issues in China. It demands for more effective regulation on energy utilization and management behaviors. Against this background, specific laws concerning energy cannot be effective and powerful enough to address energy issues. Similarly, the existing specific energy laws cannot provide adequate legislative support for CDM projects implementation in China. In this case, the basic energy law is expected: (1) to provide a legal basis for the formulation and amendment of the specific laws concerning energy; (2) to assist in solving the conflicts between the different specific energy laws and the specific laws in other areas; and (3) to effectively safeguard the implementation of energy strategies and programs in China.<sup>109</sup> Therefore, unless a basic law for energy is made according to China's national circumstances as soon as possible, climate change issue will not be effectively addressed in China.

In conclusion, under the Chinese legal system, the legal nature of CERs is still unclear. In spite of that, the regulatory ownership of CERs and the Chinese Government's responsibility of setting a fixed floor price for CERs would promote the development of CDM projects in a sustainable way. As for the public participation issues in the process of implementing CDM projects in China, there are two sides to the argument. On the one hand, it is necessary to enhance the legal effect of expert review when examining the applied project. On the other hand, public opinion on proposed CDM projects are not fully reflected before implementing a CDM project. Moreover, the international and domestic legal and institutional arrangements for promoting the technology transfer to China remain weak. Finally, a basic energy law should be made with a view to ultimately promoting sustainable development in China.

<sup>108</sup> Legislation Law of the People's Republic of China art. 7 (Mar. 15, 2000) (P.R.C.), available at [http://www.gov.cn/english/laws/2005-08/20/content\\_29724.htm](http://www.gov.cn/english/laws/2005-08/20/content_29724.htm) (last visited on Mar. 20, 2011).

<sup>109</sup> 《能源法》呼之欲出 将提交全国人大表决 [The Chinese Government Has Proposed the Draft of Energy Law to the National People's Congress], available at [http://www.china.com.cn/book/zhuanti/qkjc/txt/2009-03/18/content\\_17462939.htm](http://www.china.com.cn/book/zhuanti/qkjc/txt/2009-03/18/content_17462939.htm) (last visited on Mar. 20, 2011).

## **VI. Suggestions & Conclusion: Implications for Carbon Reduction Activities in the Post-2012 Period**

As the first Kyoto period is set to expire in 2012, various proposals on post-2012 international climate agreement have already been made worldwide. The international climate change regime and the CDM will likely be changed in the post-2012 period. In spite of the uncertainty in the post-2012 period, reducing carbon emissions will be an inevitable trend as global warming has been confirmed to be an indisputable fact. Carbon trading has been considered as a cost-effective way to reducing carbon emission. Therefore, even if the CDM does no longer exist beyond 2012, there must be another more effective emissions trading mechanism or scheme replacing the current CDM.

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. In fact, China is undertaking the establishment of nationwide carbon trading scheme in order to make full use of carbon markets to meet the challenge of reducing carbon emissions in the post-2012 period. Three domestic environment and energy exchanges were launched in Shanghai, Beijing and Tianjin in 2008.<sup>110</sup> However, designing and implementing the domestic emission trading scheme still involves major work. The above analyzed legal issues for implementing CDM projects could provide implications for carbon reduction activities in the post-2012 period.

### **A. Effective Management by the Government**

Market-based mechanisms inevitably possess economic attributes. For this reason, most project developers are willing to undertake the projects with a view to pursuing maximum commercial benefits rather than focusing on the need to address climate change and promote sustainable development. The government intervention is therefore needed to adjust the conflict between public and private interests. Accordingly, the Chinese Government should play an active role in mitigating the limited or negative impact of carbon markets through providing effective management and regulations.

As mentioned before, restriction on project participation eligibility is not always

<sup>110</sup> See Shai Oster, *China Expand Markets for Carbon Trading*, WALL ST. J., Nov. 11, 2008, at A11.

beneficial to promoting clean technology transfer. Foreign partners have expressed their concern about this restriction.<sup>111</sup> European companies are major buyers of Chinese CERs. The EU is also the largest source of China's technology imports.<sup>112</sup> However, European companies suggest that restriction be relaxed. According to Ambassador Serge Abou, Head of a Delegation for the European Commission to China, they would be more willing to bring the most advanced technologies to China only when they can participate as the controlling party to protect their intellectual property rights.<sup>113</sup>

Based on the importance of the clean technology to sustainable development in China, the Chinese Government should extend the requirement for participation eligibility of the specific carbon reduction projects that could bring advanced clean technology to China.

## **B. Creating an Appropriate Legal Framework for Carbon Reduction Activities**

China could also promote the development of carbon reduction projects through adjusting the current legal framework.

### *1. Enacting Basic Energy Law*

Although China has enacted a series of laws and regulations to deal with climate change, it still lacks a basic energy law to provide long-term and comprehensive legal support for emission reduction activities. The complicated international climate change regime poses new challenges to China's policy on energy and economic development. This circumstance asks China to coordinate ties between energy and energy-related activities comprehensively. Accordingly, it is quite significant to enact a basic and comprehensive law with a high legal level to deal with the dilemma.

### *2. Legal Strategy for Emission Reductions*

As mentioned earlier, regulatory property rights should be set up for emission reductions in China. Under the regulatory property right regime, first, emission reduction resources should be clearly defined for project owners. Second, in order to

<sup>111</sup> See Committee on Trade-Related Investment Measures, *Transnational Review Mechanism Pursuant to Paragraph 18 of the Protocol on the Accession of the People's Republic of China*, para. 4, WT/G/TRIMS/W/60 (Oct. 14, 2008), available at [http://trade.ec.europa.eu/doclib/docs/2009/november/tradoc\\_145353.pdf](http://trade.ec.europa.eu/doclib/docs/2009/november/tradoc_145353.pdf) (last visited on Mar. 20, 2011).

<sup>112</sup> European Communion Trade, *China*, available at <http://ec.europa.eu/trade/creating-opportunities/bilateral-relations/countries/china> (last visited on Mar. 20, 2011).

<sup>113</sup> He said this at a press conference in Beijing for the Second EU-China High-level Economic and Trade Dialogue held in Brussels on May 7-8, 2009.



avoid a negative effect caused by pursuing maximum economic benefits and balance the public and private interests, the Chinese Government should represent the whole people to provide the management of emission reduction projects.

### *3. Promoting the Clean Technology Accompanying Reduction Projects*

Recognizing the important role that clean technology plays in realizing sustainable development in China and the current unfavorable condition of technology transfer and diffusion by CDM projects, it is necessary to promote the clean technology to transfer and development through legal measures. Therefore, it is possible and desirable to make compulsory rules for technology transfer. A technological indicator should be included when examining if a proposed project would promote sustainable development.

### *4. Setting up Clear Standards for Expert Review*

It is reasonable to set up expert review when approving the proposed project. In spite of its necessity, ambiguities exist in the current approval process. First, what kinds of relevant organizations can be entrusted for expert review should be specified. Second, the standards for selecting the qualified experts should be clearly set up.

## **C. Setting up a Carbon Trading Support System**

A carbon emission reduction projects support system, including carbon reduction awareness system, services system and financial system, should be set up in China.

### *1. Enhancing Carbon Reduction Awareness and Capacity*

The awareness of the Chinese Government and enterprises in developing the CDM has been increasingly enhanced. As mentioned earlier, China has set up 27 provincial CDM information and education centers at the local levels and has carried out CDM training at a grassroots level. In this manner, the CDM could play an important role in realizing national climate change programs and environmental protection policies at local levels.<sup>114</sup> Moreover, CDM projects also could play a positive role in improving policymakers' and energy industries' awareness and understanding of climate change, clean technology, and carbon trading, thus helping to enhance a sense of urgency about

<sup>114</sup> EU-CHINA CDM FACILITATION PROJECT, ASSESSMENT OF THE IMPACT OF CHINA'S CDM PROJECT ON SUSTAINABLE DEVELOPMENT 153 (2009), available at [http://www.euchina-cdm.org/media/docs/Sustainable%20Impact%20Assessment%20of%20China%20CDM%20Project%20\\_EU%20China%20CDM%20Facilitation%20Project.pdf](http://www.euchina-cdm.org/media/docs/Sustainable%20Impact%20Assessment%20of%20China%20CDM%20Project%20_EU%20China%20CDM%20Facilitation%20Project.pdf) (last visited on Mar. 20, 2011).

global warming.<sup>115</sup>

In this design, it is necessary not only to continue to make full use of the CDM to enhance the carbon reduction awareness including the public participant in carbon reduction activities, but also to raise the project developers' capacity and expertise through international and domestic capacity building for the CDM and regional training programs. In addition, project developers should fully understand their legitimate interests and rights involved in carbon trading and protect them through appropriate contracts.

### *2. Improving the CDM-related Services Industry*

The CDM operational rules are extremely detailed and technical. Furthermore, CDM project developers usually do not have the corresponding technical capacity and practical experience to implement CDM projects. Consequently, project developers tend to leave the processing of CDM project application to the CDM-related consulting services agencies. In this regard, the CDM-related service industry is deemed as a significant part in CDM project implementation in China. Therefore, urgent is to set up legitimate and legally binding standards for the CDM service industry in order to regulate and ensure the quality of CDM service and highly qualified staff.

### *3. Setting up a Corresponding Financial System*

The Chinese Government may promote the development of carbon reduction projects through the adoption of financial measures and incentives. In order to regulate the scope of the CDM projects and promote the development of the CDM projects in energy-related areas, the Chinese Government has intervened in the CDM market through imposing tax on proceeds from the transfer of CERs.<sup>116</sup>

In addition, the Measures clearly states that: "CDM project activities should promote the transfer of environmentally sound technology to China."<sup>117</sup> To this end, the Chinese Government may adopt favorable financial policies for the developers of the carbon reduction projects that could bring the transfer of environmentally sound technology to China. These policies may include preferential imported duty, income tax and loans for this type of projects.

<sup>115</sup> *Id.*

<sup>116</sup> *Supra* note 6, art. 24.

<sup>117</sup> *Id.* art 10.