

Green Markets. The Clean Development Mechanism, Regulation and Application in Mexico. Challenges and Perspectives

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I. Origin and basis of green markets

The birth of green markets is the result of various coinciding factors, but more importantly by the reality that we know as “the tragedy of the commons”. This has represented over the last few decades the degradation of the common goods that can be found in the environment, due to their excessive use. This phenomenon is understandable because it is human nature to not value that which does not represent a direct and personal cost in relation to the property.

In virtue of the crisis provoked by this problem, market instruments have been developed to provide in some way, economic value to the commons through means of the application of the rights for private property on the same; sustainable use can be obtained out of this valuation. These instruments induce in the contamination agents to adopt measures avoid this contamination or to conserve the natural resources by means of economic incentives.

These instruments are governed by the rules of the free market, so it is crucial that there exists a legal framework that regulates them, in order to determine what characteristics the goods being commercialized must have to regulate the property rights generated in said market.

Trading Permits are one example of this market instruments, these permits are certified and granted by the authority so an allowance is extended to discharge up to a certain quantity of contaminating emissions over a determined period of time , if the generator does not emit the total quantity authorized, they may sell the “allowances” for the amount of emissions left, and obtain an economic benefit.

The market for the commercialization of the permits has given rise to the green market for atmospheric emissions.

II. The green market for atmospheric emissions.

The green market for contaminating emissions has developed primarily in two ways:

- a) In the first scheme the regulating entity establishes a maximum level of emissions and grants “emissions allowances” to each generator for a predetermined quantity of emissions over an established period of time. These “allowances” are assigned or

♦ Environmental Lawyers. Members of Burguete, Celis y Asociados, SC. A firm exclusively dedicated to Environmental Law.

auctioned. Any emission that exceeds the permissible limits incurs in administrative sanctions.

In the case of a company that modernizes their processes to subsequently emit a lower level of contamination than the allowed, the emissions allowances unused may be sold. Therefore these companies will obtain economic gains, which economically promote the non-emission of contaminating gases.

The certificate known as “allowance” is what is commercialized, and may be bought, sold or banked for future use; they may even be withdrawn by the regulating entity in order to create additional environmental benefits.

The trade of these types of permits has developed in many countries regional markets where the certificates that are sold allow to contaminate with specific types of gases, for example gases that produce acid rain or green house gases.

- b) In the second type of market the regulating entity establishes limits for the reduction of contaminating gases in existing emissions. Here, the generators are obligated to reduce discharges by a specific tonnage within a specific period of time. Every reduction may cause the issuance of certificates for the reduction of emissions, known as “credits”. These reductions are certified by the regulating entity and afterwards commercialized among those that offer these certificates (generated in projects whose objective is the reduction of emissions) since they no longer need them (given that their goal is accomplished or they are not obliged to reduce emissions), and those that demand these certifications in order to help them to accredit that they are complying with an imposed reduction goal.

This market is the one which represents a great opportunity for our country to implement a system of marketing and to contribute to solve the problem of climatic change.

III. Climatic change and green markets for atmospheric emissions

i) Climatic change

Scientific evidence and data has shown that the existence of gases in our atmosphere with greenhouse effects is one of the most important causes of climatic change and global warming. Global warming has brought as a consequence the migration of agricultural zones and disease, retreat of the polar ice caps, a rise in sea levels, climatic disruptions, droughts, hurricanes, storms, wild fires, among other associated problems.

The generation of greenhouse gases is due primarily to deforestation, the use of combustible fossil fuels, as well as industrial and agricultural activities.

There are two main avenues in order to reduce the emissions of these greenhouse gases:

- a) The development of projects that reduce these emissions at the sources that generate them (thermoelectric plants, automobiles, industry, etc.); and

- b) The development of projects that increase the absorption of greenhouse gases by means of seizing and capture of carbon.

In the international-legal arena, the United Nations Convention on Climatic Change was signed in 1992, (from hereon in “The Convention”); the countries that signed committed themselves to search for specific objectives for the reduction of greenhouse gas emissions.

- ii) The Kyoto Protocol

In 1997, 159 countries signed the Kyoto Protocol¹, through means of which the countries of Appendix-I of the Convention (the industrialized countries, known from hereon in as Appendix-I countries) agreed to reduce their emissions during the period 2008-2012 by an average of 5.2% below the emission levels of 1990, this commitment signified a reduction of approximately one billion tons of carbon per year.

In order for Appendix-I countries to comply with their obligation to reduce emissions, it would be necessary for the governments to oblige their industries, companies and other generators of emissions to reduce their emissions during the development of their activities.

The Protocol establishes the possibility of using flexible mechanisms in order to help Appendix-I countries as well as their industries and companies, to comply with the commitments of reduction.

- iii) Flexible mechanisms of the Kyoto Protocol²

- a) The Clean Development Mechanism (in the following CDM).

Article 12 of the Kyoto Protocol establishes the CDM. This mechanism was designed for the purpose of helping industrialized countries comply with their commitments, through means of reductions in emissions of carbon projects. As a consequence of the CDM, countries that invest in projects to be developed in non-Appendix-I countries may count any reductions achieved as a means of complying with their own obligations.

1 At the time of publication of this present article, 95 countries had ratified the Kyoto Protocol, of which, 25 are countries Appendix-I. If you sum up the percentages for the reduction of emissions to which these countries have committed themselves then you would get a total of 37.1%. According to article 25 of the Kyoto Protocol for it to be able to enter into force its ratification by the 55 countries of the Convention would be necessary (which they already have), but that said ratification commits to a reduction of emissions of 55% on the part of appendix-I countries, a percentage that has still no been achieved. See <http://unfccc.int/resource/kpstats.pdf>. This does not include the expected ratification by the countries of Canada, Russia and China. It is important to state that although the Protocol has not yet come into force, its diverse mechanisms are already being developed, and likewise, these countries are currently developing projects for the reduction of emissions, these as preparation and prevention measures against the very possible entry into force of the Protocol.

2 The Kyoto Protocol at: <http://unfccc.int/resource/docs/convkp/kpspan.pdf>

The advantage of said mechanism is two fold: firstly, because reducing carbon emissions in developing countries is much more economical than doing so in an industrialized nation (The countries in Appendix-I have already implemented a greater number of new technologies than those countries that are still developing, then it is much more expensive and less beneficial to implement new technologies in these industrialized nations); and secondly, the developing countries receive investment in clean energy while achieving forms of sustainable production.

IV. The CDM and its regulation.

i) CDM projects and their benefits

Projects for the implementation of CDM include:

- Projects that reduce the emission of greenhouse gases;
- Projects that implement the generation of energy by means of renewable and non-contaminating sources;
- Projects that use non-contaminating fuels in the production of electricity;
- Projects that recover methane in order for it to be used as a combustible fuel for the production of electricity.

Benefits for non-Appendix-I countries:

- a) Investment in the energy sector; and
- b) The sources of energy that are implemented will be sustainable.

Benefits For Appendix-I countries:

- a) The development of projects that help to reduce emissions from which they themselves may derive a gain; and
- b) The obtaining of reductions in emissions.

ii) Market for Emission Reduction Certificates

According to the Protocol, the reductions that are achieved from the must be certified and a certificate will be emitted (CER's). These CER's have two uses:

- a) They may be used to accredit their obligation to reduce emissions, or
- b) They may be sold to those countries or companies that need to accredit a reduction in emissions.

Owing to the fact that there is a supply and demand, this has generated a market of CER's.

The certificates for units of emission reductions that accredit the reduction of one ton of carbon dioxide currently have a value of between US \$0.11 a US \$20, depending on the location of the reduction and between whom the transaction takes place and the inert risk of the project³.

As an example of the potential of the market, the forecast for the year 2010 is that the greenhouse gas market will be worth between \$10 billion and \$3 trillion American dollars.⁴

In order for this market to work, it is necessary for these certificates to have certain characteristics and that the projects that generate them also comply with certain formal requirements, so a measure of security and certainty is provided.

iii) Certification of CDM projects and their reductions of emissions

The Kyoto Protocol establishes the characteristics that the projects must have, which are developed under the scheme of the mechanism of clean development, as well as the procedure that has to be followed in order for it to be classified as such, and the certification of the reductions in emissions achieved by said project.

CDM's that are going to be implemented must have the following characteristics:

- a) That there is a voluntary participation;
- b) That there be real, measurable and long term benefits in relation to the mitigation of climatic change, which the project is going to obtain; and
- c) That the emissions that are going to be reduced are **in addition to** those that would be produced if the activity of the certified project was not carried out. This concept is known as "*Additionality*".

These are the stages for the development of the certification procedure:

- 1) Design;
- 2) Validation;
- 3) Registration and approval of the host country;
- 4) Monitoring;

3 As previously explained, the location where the reduction takes place, makes it more expensive and as such, so will the CER's that they obtain; in relation to those that make these transactions, the price of the CER's is lower if the transaction is made by intermediaries and voluntary purchasers than if the transactions are bilateral or internal within corporate negotiations for the purpose of complying with environmental norms or laws; with regards to the inert risk of the project, it is understood that there is a risk of acting in advance of that which exists in the national legislation to regulate the process, the risk of the CER's that they think to obtain as opposed to those that are assigned in reality, financial risks and the social impacts of the project, risk of the country where it is carried out, etc.

4 Ibidem.

- 5) Verification and certification; and
- 6) Assignment

Within these procedures the actors are:

- Executive Board of the Kyoto Protocol;
- National Authority;
- Operational Entity accredited by both the Conference of the Parties of the Kyoto Protocol and by the Executive Board of the same.⁵
- Appendix-I Company, “Responsible for the Project”.
- Non-Appendix-I Company, “Responsible for the Project”.

V. Application of the CDM in Mexico.

The application of the CDM in Mexico is a real option considering that it is a non-Appendix-I country and qualifies as a participant in projects that reduce emissions.

Mexico is a country that requires investment in its energy sector and with the implementation of CDM projects, an opportunity arises for the sustainable development of the energy sector.

Mexico is still not registered as a “host” country for CDM’s although it is in the process of creating the special governmental entity required to register and approve CDM projects. However, with the purpose in mind of forging ahead in this process, projects are currently being carried out for the reduction of emissions, which are registered as such.

The regulation of these projects is done in case by case, based on that established by the Kyoto Protocol. At this time the SE through the National Commission for the Savings of Energy (CONAE) that is the authority before which the procedures for the registration of the projects and any other activity are developed.

The fact that there are projects being implemented proves that there are adequate grounds for their implementation. There are also companies of Appendix-I countries interested in developing projects in Mexico.

On the other hand, despite the fact that there are no stipulations in the county that regulate the provisions of the Kyoto Protocol, it is still possible as has already been done, to implement said projects with security and legal certainty. The key is the agreement between those Responsible for the Projects that exist and those Responsible for the Projects and the Operational Entities as well as the activities that are carried out before the National Authority

⁵ Among those requirements that an operational entity must have in order to be able to be accredited as such, they must be a legal entity that has personnel qualified to carry out the validation, verification and certification of the emissions as well as the necessary technical knowledge to determine the base lines and monitor the emissions, and have knowledge of the regulations for the Mechanism for Clean Development. Likewise, the entity must be economically stable and have an insurance policy that covers the development of their activities as well as any legal or economic responsibility that may arise from the development of their activities. This is established in Decision 17/CP.7, Appendix A. <http://www.unfccc.int/cdm/doe.html>

and the Executive Board are duly documented and certified in accordance with the regulations indicated by the Kyoto Protocol.

Lawyers must develop agreements that offer security to all transactions in order to implement these projects, to regulate the obligations of each Party and establish their responsibilities. They must also provide for and agree upon the volatility of the prices upon credit issues and establish clauses relating to force majeure and risk and above all in order to precisely regulate the property rights that they generate, especially those regarding the CER's.

VI. Challenges and perspectives

Notwithstanding the broad field that exists for the development of green markets in Mexico, they have not as yet been implemented to their full potential for the following reasons:

- i) There is a lack of coordination between the authorities responsible for the different sectors;
- ii) There is no focus on the part of the Mexican industry with respect to the potential of CDM projects and on the profitability of their application;
- iii) There are no regulatory systems that offer certainty to investors; and
- iv) The procedures for the determining of base lines and the measuring of emissions require confirmation.

As a consequence, our country presents a challenge to create an infrastructure for information that will allow an efficient publicity, registration and implementation of the trade in emissions through means of a more adequate vehicle for each project.