

# FEASIBILITY AND FINANCIAL ISSUES OF CLEAN PROJECT DEVELOPMENT MECHANISM IN ARGENTINA

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Reception date: 10/16/12 - Approval date: 10/18/12

## ABSTRACT

The objective of the research is to determine the current status and perspectives presented in Argentina in 2011 for different stakeholders regarding the development, execution and implementation of projects of clean development mechanism (CDM) under the Kioto Protocol, with emphasis on the analysis of accounting issues.

In the Argentinean research there is an analysis of the accounting issues under discussion and -taking as antecedent the Brazilian study mentioned- has surveyed and interviewed stakeholders belonging to government agencies, professional bodies such as councils accounting professionals in economics from different jurisdictions, academics, consultants and companies that deal or CDM projects plan to address issues relating to general and their views on potential regulations from bodies of the accounting profession and/or governmental and motivation of business and accounting issues of CDM projects such as moments of recognition of accounting entries and the different forms of the same recognition. The results showed that knowledge on the subject of stakeholders is initial but is possible an important increase in the future, accompanied by the development in Argentina of such projects.

**KEY WORDS:** Social and Environmental Accounting; The Kioto Protocol; Emission Rights; Corporate Social Responsibility.

## INTRODUCTION

The Kioto Protocol (UNFCCC, 2011) allows the participation of developing countries -called Annex 1 countries- through the development of projects of clean development

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“Visión de Futuro” Año 10, Volumen N°17, N° 1, Enero - Junio 2013

URL de la Revista: [www.fce.unam.edu.ar/revistacientifica/](http://www.fce.unam.edu.ar/revistacientifica/)

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ISSN 1668 – 8708 – Versión en Línea

ISSN 1669 – 7634 – Versión Impresa

E-mail: [revistacientifica@fce.unam.edu.ar](mailto:revistacientifica@fce.unam.edu.ar)

mechanism (CDM), Argentina is in that situation. In relation to the accounting impacts arising from the implementation of the Kioto Protocol, there is a study as background on accounting for emission rights in European companies (ACCA, 2010) and with reference to the CDM projects, a group of researchers in Brazil (Peleias et al, 2007) -a country that has the largest number of CDM projects in Latin America- conducted a survey of the companies involved in order to identify issues related to the accounting treatment that Brazilian companies with CDM projects being implemented or intend to implement to carbon bonds. In Argentina, CDM projects arising from the Kioto Protocol have a growing development promised a few years ago, but with the passage of time has proved that its development did not occur to the extent expected, currently the way of thinking is that in the future it may result in the reactivation of these projects.

The objective of their research is to determine the current status and perspectives presented in Argentina in 2011 for different stakeholders regarding the development, execution and implementation of CDM projects, with emphasis on the analysis of accounting issues.

## **DEVELOPMENT**

### **1. The Kioto Protocol and the flexible mechanisms**

Given the emerging threat of climate change, many nations and organizations began to mobilize for mitigation. Concern for the environment has positioned the company as a priority issue to resolve it, which has resulted in parallel to the scientific world, through its different areas, to address their issue. To develop their point we have relied on the Kioto Protocol (UNFCCC, 2011), in particular Articles 2, 3, 6 and 12.

The Kioto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change (UNFCCC) which aims to promote sustainable development by limiting and reducing emissions of greenhouse gases (GHGs) -mainly dioxide (CO<sub>2</sub>) - with the lowest possible adverse effects on economic relations, society and the environment, especially in developing countries.

To accomplish this there has been assigned a goal to national individual countries and groups of countries, such as the European Union that for the period 2008-2012 has been proposed to reduce by at least 8% of GHGs emissions made in 1990; they have not set specific targets for developing countries. To achieve these objectives the Kioto Protocol,

proposes the following flexibility mechanisms: emission allowance markets, CDM and joint projects.

## 2. Clean Development Mechanism

The Clean Development Mechanism (CDM) is the implementation of projects in developing countries, with support of industrialized countries; these projects allow additional emission reductions that would have occurred in case of using conventional technology.

Article 12 of the Kyoto Protocol (UNFCCC, 2011), states that the purpose of the CDM is to assist countries not included in Annex 1 to achieve sustainable development and contribute to the goal of reducing GHGs emissions. At the same time, the countries included in Annex 1 have benefited in return for investing in those countries, transferring clean technologies or financing emission reduction projects, and enabling economic development, because they receive emission reduction certificates (CERs). Such certificates can be purchased by the market and developed countries and those in transition to a market economy to meet part of their commitments to limit and reduce emissions.

One CER represents one tons of carbon emitted into the atmosphere, although the price varies depending on the type of project, the present value per unit is approximately 13 Euros (Sendeco, 2011).

To develop a project within the framework of the clean development, it must meet the following conditions: the project must be carried out voluntarily by the parties involved and should produce real, measurable and long-term benefits, related to climate change mitigation. This means that, it must contribute to sustainable development through the transfer of clean technologies and know-how without adverse effects on the environment. Note that no development is allowed for nuclear energy projects. It should also produce greater emission savings that have been achieved if the project had not been made. With respect to CDM projects and the conditions to be met, there is a strong criticism concerning the justification of their contribution to sustainable development (Newell, 2011).

### 2.1 Cycle of a proposed CDM

Like any other projects, international projects designed to obtain GHG allowances require assigning roles and responsibilities arising from each project, analyze its technical, economic and financial viability and knowing their critical chain and buffers (Fronti, 2009). Furthermore, their type of project demands a unique analysis as CDM projects. The following

sets out the stages of CDM projects and then details the activities under the project design stage.

**Table 1. Stages of a proposed CDM**

STAGES	RESPONSIBLE
1.- DESIGN	Project participants
2.- VALIDATION	Designated operational entities
3.- REGISTRATION	CDM Executive Board
4.- IMPLEMENTATION	Project participants
5.- WATCH	Project participants
6.-VERIFICACIÓN	Designated operational entities
7.- CERTIFICATION	Designated operational entities
8.- DELIVERY ORDER (RCE)	CDM Executive Board

Source: Own Elaboration, from Fernández Cuesta and Fronti - speakers - (2010 p. 52)

The CDM registry amount ranges between 5,000 and 30,000 dollars, depending on the size of the project emission reduction measured in tonnes of CO2 equivalent (UNFCC, 2011).

## 2.2 Advantages and limitations of CDM projects

The implementation of a CDM project involves several advantages, including: reducing greenhouse gases, the contribution to sustainable development by improving the quality of life of the inhabitants of the area where the project is implemented, reception technology, foreign income benefit to the province which may be used for the promotion of research and development of new sustainable development projects and the generation of new jobs in the implementation of the project, among other benefits and finally proceeds from the sale of CERs.

But along with the benefits, a CDM project has some restrictions, such as the need to perform many procedures, national and international, which are expensive and slow; the variation of prices in international market of CERs; ancillary risks caused the impossibility of achieving the budgeted CERs in a timely manner; difficulties in additional budgeting and continuity problems in the country that receives the investment.

## 3. Clean Development Mechanism in Argentina

### 3.1 General aspects

Latin America produces nearly 50% of the emissions caused by land use change; with respect to the emission of nitrous oxide, Brazil is in first place followed by Argentina and Colombia; in Latin America region, over 70% of the greenhouse gases (GHG) are issued by Brazil, Mexico, Venezuela and Argentina (Oliver, 2006).

Regarding sinks and reservoirs of greenhouse gases, the Kioto Protocol (KP) conceives of forestation, reforestation, land uses, use change and forestry, it as a facility to achieve compliance commitments in emission reduction. The vegetation act as sinks for their function of photosynthesis, which absorb CO<sub>2</sub> (Article 3, paragraph 3, of the Kioto Protocol, UNFCCC, 2011). In Latin America, there are great opportunities for CDM projects in the agricultural sector, particularly from the till, but it is very difficult to prove their additionality (Newell, 2011).

According to D'Elia (2010), there are currently running 455 CDM projects: only 16 belong to Argentina. In Latin America, 40% correspond to Brazil; then Mexico with 26% and Chile with 8%. Argentina represents CDM projects 4% of the region and 1% worldwide.

Like the other countries, Argentina is also suffering the consequences of climate change (SAyDS, 2006), (Conte Grand, 2010). In Argentina, at the government level, there is Argentina's Office for Clean Development Mechanism (OAMDL) under the Ministry of Environment and Sustainable Development (SAyDS, 2011). With respect to possible financial structures that can adopt CDM projects they are among the most common (BCBA, 2007): unilateral projects, projects where there is a debt and those in which there is a capital investment.

The status of CDM in Argentina presents local particularities such as the existence of a reserve requirement for funds from abroad that discourages their type of investment because it affects the income of foreign funds with a 30% reserve, which means that the money not available for a year and a zero interest rate. There are also specific tax issues under debate for Argentina (Rajmilovich, 2008) such as the tax treatment of carbon credits derived from a CDM, the differential characteristics of CDM projects, the importance of the factor on the proposed tax, tax incentives on the project investment and tax incentives for resource providers.

### **3.2 Projects approved in Argentina**

Argentina, although it has ratified the Kioto Protocol, is not a member of Annex 1 country, therefore, it is not subject to GHG emission reductions. However, it can be the host country to run CDM projects. Currently, there are 41 registered CDM projects in Argentina, of which 16 have already been approved internationally.

**Table 2. CDM projects in Argentina internationally registered**

Landfill methane-gas capture	9 proyectos
Energy generation through biomass	2 proyectos
Improving efficiency in energy generation from fossil fuels	1 proyect
Capture and decomposition of HFC23 (Hydro fluorocarbon)	1 proyect
Wind Power	1 proyect
Others	2 proyectos
Total	16 proyectos

Source: Own Elaboration, based on <http://www.ambiente.gov.ar/?idarticulo=6304>

The following table shows the 16 projects internationally registered in Argentina, with estimated reductions of CO<sub>2</sub> for each project decreasingly ordered:

**Table 3. Projects internationally registered in Argentine**

Nº	PROJECT	Total estimated emission reductions (tons of CO <sub>2</sub> equivalents)	Annual average estimated reductions (tons of CO <sub>2</sub> equivalents)
10	Draft capture, storage and decomposition hydro fluorocarbon 23 (HFC23) Frio Industrias Argentinas SA	30,118,116.00	1,434,196.00
8	Project extraction and biogas capture for fillings of González Catán y Ensenada	7,698,095.00	769,810.00
1	Proposed gas capture and flaring at the landfill Villa Dominico	6,376,598.00	708,510.89
12	Project methane gas recovery with energy landfill Norte III-B	6,137,811.00	613,781.00
6	Recovery of biogas at the landfill north III	2,968,072.00	296,807.00
14	Proposed conversion of existing gas turbine, open cycle to combined cycle power station in Patagonia, Comodoro Rivadavia	1,172,437.00	167,491.00
7	The biogas recovery project Landfill Puente Gallego, City of Rosario, Santa Fe Province	638,854.00	63,885.00
11	Bio-energy project in General Deheza electricity generation from peanut hull and sunflower husk	585,760.90	27,893.38
25	Reduction of energy consumption during the production of hydraulic lime for construction by addition of mineral components and calcined additives	430,161.00	43,016.00
3	Reducing emissions of greenhouse gases in the plant Aluar Aluminio Argentino SAIC	412,730.00	41,273.00
2	Gas Recovery Project Olavarria Landfill	392,452.00	18,688.00
15	Proposed biogas capture and flaring at the landfill Fachinal AESA, Misiones	372,361.00	37,236.00
5	Wind Farm Project Antonio Morán in Patagonia, Argentina	185,483.00	26,497.57
20	Methane abatement project in effluents farm slaughter plants Tres Arroyos	173,475.00	24,782.00

Nº	PROJECT	Total estimated emission reductions (tons of CO <sub>2</sub> equivalents)	Annual average estimated reductions (tons of CO <sub>2</sub> equivalents)
9	Draft partial replacement of fossil fuels from biomass in the cement manufacturing process	76,087.00	7,609.00
21	Gas capture project in Salta Landfill	67,518.00	9,645.00

Source: Own Elaboration, based on [www.ambiente.gov.ar](http://www.ambiente.gov.ar) (25 May 2011)

If we analyze the types of Argentinean projects registered, we see from the above table that landfills are the type of CDM projects that are mostly done. This is mainly due to the easy way that their project can be replicated in different landfills in the country, mainly in the province of Buenos Aires, where there are large populations and industries and therefore the solid waste deposited in landfills are important.

Regarding the future of the carbon market, Argentina has proposed changes in the operation of the CDM, such as the possibility of incorporating sectorial actions which increase the activity (Castillo Marin, 2010).

#### 4. Accounts of the clean development mechanism

##### 4.1 Background of international accounting standards

The interpretation of allowances issued by the International Accounting Standards Board, IFRIC 3, has the following chronology: in 2003 the proposed interpretation is made, in 2004 there comes a standard approval, in 2005 there are detected contradictions and leave standard force and by 2011 there is no defined accounting framework for estimating and recording allowances properly.

There are several closely linked to IAS repealed IFRIC 3 about emission rights, is IAS 20 on government grants, IAS 38 on intangible assets and IAS 37 with respect to the emission of pollutants generated by the contingent liability of IAS 37.

In relation to intangible assets, the rights granted by the government or acquired are considered intangible assets and, if they were awarded by a lower value, they are carried at fair value. The grants appear for the difference between the fair value and the price paid and recorded as deferred profit. With respect to intangible assets, contingent liabilities are generated by producing emissions and force surrender allowances; liability measurement is carried out at its current value -market value- at the end there are the number of rights that are required to settle debt.

The contradictions of the standard have mainly to do with: the asset can be measured at cost or fair value and liabilities are measured at present value, the asset is recognized when the right is received (start of year) and liabilities that occurs to generate emissions (over the year) and violate the principles of understandability, relevance, reliability and comparability.

For example, in the famous case of Botnia, in 2006 allowances were measured to 2.5 million Euros and corresponded to 76,000 per ton, the price in 2006 ranged from 7 to 31 Euros per ton; the company also received as allowances rents € 6.2 million and on sales of emission allowances 2.2 million Euros.

#### **4.2 Specific accounting questions of the CDM**

The IASB does not address accounting issues arising from CDM projects, so are many unresolved issues related to the accounting for a CDM project, with all aspects involved.

In the following items we will discuss in detail some of the problems that arise, they are related to tangible and intangible assets related to the CDM project, feasibility studies and other expenses and project approval.

##### **a) Investments in tangible assets**

For the development of a CDM project, the companies make an investment in tangible assets (tangible) that can be -for example- for new machinery, process development or integration of clean technologies, which are accompanied by investment in intangible assets -capitalized expenses on or terminology in some contexts, for instance national and international consulting, advisory, among others, relating exclusively until the approval of the Executive Board of the project in question-, which allow to obtain CERs.

Through the addition of property, plant and equipment -machines or complete production lines-, replaced existing assets in order to increase production, reduce inefficiencies, improve product quality or, most likely, a combination of them. A change in technology may bring environmental improvements in production processes, such as lower levels of greenhouse gas emissions, which are eligible for CDM project plans.

With respect to the definition of assets or property, plant and equipment; Bursesi and Perossa (2008) argues that the assets are all investments that the employer takes on tangible assets and others.

##### **b) Feasibility studies and other expenses**

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“Visión de Futuro” Año 10, Volumen N°17, N° 1, Enero - Junio 2013

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ISSN 1668 – 8708 – Versión en Línea

ISSN 1669 – 7634 – Versión Impresa

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If the company conducted feasibility studies, from consumer tastes, public reports, among others, they should be treated as a negative result for the year in which they were earned. The company could incur in the following costs (Bursesi and Perossa, 2008): environmental study of the development, study of public opinion on the importance of the company's concern for the care of the environment, development of preliminary engineering studies, study development costs, other studies and measurements related to project engineering, anticipated savings, improved corporate image and the added value to the company, among others.

### **c) Approval of the project**

If the entity that organizes the project is a corporation, the decision making body is the Annual General Assembly which meets with the particular aim of the investment project approval and implementation of CDM plan.

It is desirable to have a sufficient amount of accounts –one hand accounts from accounting- to provide all information related to the projects themselves, in order to facilitate the budgeting of the investment plans of the company, in that way the accounting systems can meet their information function: clear, timely, concise and disaggregated according to the needs of the body.

We believe that to meet the national body, the amounts due in respect of specific studies, fees, charges and other expenses related exclusively (and necessary) with the CDM plan can be summarized in a single account.

### **d) Intangible assets**

Corresponds to start activating (capitalize) costs as possible Intangible, once the decision is made by the body to carry out the CDM project (approval of the Shareholders' Investment Project). It must not activate the identified expenditure related to the study of CDM project (depending on whether their spending is prior to the decision to do the same). The limit on the value of Intangible should not exceed the present value of expected future benefits discounted at the rate of cost of capital of the company. Their intangibility exists as long as it is in the market or institutional framework (Kioto Protocol) organized backing the issue of certificates (RECs).

The completion of the project includes the purchase of equipment, hiring engineers, technicians and other personnel for installation and commissioning of the generating

equipment. The accounting records relating to these items are recognized in the normal accounts, to be (some) capitalized in CDM Intangible account.

In relation to intangible assets, we want to bring up the opinion of several authors to address the issue of allowances, because their arguments were considered in our work.

## **5. Empirical studies**

### **5.1 The their theory of the Brazilian study**

Regarding the accounting impacts of the Kioto Protocol, in 2007 was held in Brazil (Peleias et. Al, 2007) a survey to identify the accounting treatment that Brazilian companies with projects of clean development mechanism (CDM) were applied to carbon bonds.

With regard to the research methodology which was an exploratory study, documentary and bibliographic with a complementary discourse analysis through information obtained by sending online surveys companies with CDM projects. The universe and answer the Brazilian stud, that conducted its survey in the first half of 2006, is summarized by the following figures: 109 companies were surveyed, with 145 CDM projects, 16 companies responded and 10 companies refused to answer.

The projects of Brazilian companies that responded are located in the following areas and the following numbers of projects: landfill - methane gas capture (5 projects), biomass - power generation through biogases burning (4 projects), pigs - methane gas capture (3 projects), fuel switching (2 projects), small hydro (1 project) and substitution of raw materials (1 project).

The Brazilian survey was structured into the following sections: regulation by accounting bodies and / or government, business interest, time of recognition and acknowledgment form, reached the following conclusions: 11 of the 16 firms have projects that generate carbon bonds, one of the 11 companies recognized in its accounting reports carbon bonds at the time they are generated and before sale, there have been different views on how and when to include in the bond business, carbon reports and manifests the need for regulation by government agencies and accounting.

### **5.2 The Argentine surveys and interviews**

Based on the objectives of their research for Argentina and against the background of Brazilian research, a survey was designed to be exploratory circularized among stakeholders and experts in the carbon market in Argentina.

Dividing stakeholders and specialists into three groups: regulators, issuers and users, it attempted to cover all three at first. In the case of listed companies that are carrying out CDM projects they proved impossible to access referents in some cases and in the few cases where it was possible to access the response rate was low.

The survey methodology chosen was the multiple choice which facilitates the brevity and clarity of it, since it tries to perceive the initial knowledge and views of stakeholders on the issue. Respondents were asked to choose between different options, and may in some cases select more than one without contradiction. In all cases provided an option where there was the possibility of adding an answer that was not in the default options. Following we attach the survey.

**Table 4. Survey in carbon bonds in Argentina**

SURVEY OF CARBON IN ARGENTINA	
For each question we ask tick the/s option/s response/s that in your opinion it deems most appropriate. The answer choices for each question are not mutually exclusive.	
1. ¿What is the area of the institution / company to which you belongs?	<input type="checkbox"/> Industry. Type: <input type="checkbox"/> Accountant / lawyer Study <input type="checkbox"/> Consultant <input type="checkbox"/> Freelancer <input type="checkbox"/> Inverter <input type="checkbox"/> Municipality <input type="checkbox"/> Government Agency <input type="checkbox"/> NGOs <input type="checkbox"/> Chamber / Grouping <input type="checkbox"/> Other:
2. ¿What benefits you estimate the carbon credits will report to businesses?	<input type="checkbox"/> Tax benefits <input type="checkbox"/> To attract investments, funds, technologies <input type="checkbox"/> Global competitive positioning <input type="checkbox"/> Other:
Please answer the following questions only if you are involved or in contact with the development of CDM projects (Clean Development Mechanism)	
3. ¿What kind of regulation you think there should be for carbon credits and inclusion in financial reports?	<input type="checkbox"/> Government <input type="checkbox"/> Professional Accounting <input type="checkbox"/> No regulation <input type="checkbox"/> Other:
4. ¿To what point considered carbon bonds should be recognized by the company developing the CRM project?	<input type="checkbox"/> Amount of adoption of the draft Clean Development Mechanism (CDM) <input type="checkbox"/> Issuance of CER (Credit Emission Reduction) <input type="checkbox"/> Sale and delivery of the CER <input type="checkbox"/> Other:
5. ¿What in your opinion would be the most appropriate classification for carbon credits?	<input type="checkbox"/> Fixed assets <input type="checkbox"/> Intangibles <input type="checkbox"/> Investment <input type="checkbox"/> Other:

Source: Own Elaboration

The form sent is divided into three parts. The first is to identify the respondent, the second is general and the third is strictly accounting.

We began wondering what was the heading of the institution to which they belonged.

The next question consulted is what estimated benefits report or will report the carbon credits to businesses. Later, asked about what kind of regulation you think that should be for carbon credits. Then the question was raised regarding accounting recognition of carbon bond. The last point raised was referred to the most appropriate classification for carbon credits.

As background to the empirical research conducted in 2011, the survey was circularized in 2008 and 2009 in two events on carbon markets organized by the Stock Exchange of Buenos Aires and the Professional Council of Economic Sciences of the Autonomous City of Buenos Aires. The results are taken as a first empirical approach to the subject conducted by the research group that yielded results that showed that the knowledge on the topic of respondents was very early.

The survey was circularized first to the participants of the Seminar and Business Roundtable on carbon markets held in the Stock Exchange of Buenos Aires (BCBA) in 2008. Their seminar was supported by the BCBA and the Secretariat of Environment and Sustainable Development of the Nation. At the seminar, which included a business roundtable, 200 participants attended interested in the carbon market and its possibilities, among them 31 were survey respondents, so the 15.5% was obtained as response.

The same survey was circulated in a second chance in an event organized by the CDM Professional Council of Economic Sciences of the Autonomous City of Buenos Aires aimed specifically at professionals in economics interested in the carbon market. The event was part-time and had a simulation game, of the 40 attendees 13 were respondents, representing 32.5% of the total surveyed.

In 2011 the survey was sent by e-mail to a group of 50 respondents selected for their knowledge on the subject and from different institutions, the response rate was 50%, yielding 25 replies, in 5 cases the surveys were followed by interviews.

### **5.3 Results of the study**

Analyzed in detail the results of the surveys followed in some cases interviews conducted in 2011, totaling 25 surveys and 5 interviews. We began wondering what was the

heading of the institution to which the respondents belonged. The following table shows in detail the responses of the 25 respondents:

**Table 5. Institution type**

University research center	29%
Freelancer	23%
Accounting firm	16%
Industry	13%
Consultant	13%
Government Organization	3%
Other	3%
Total	100%

**Source:** Own Elaboration

Respondents who predominated were those belonging to university research centers (29%) and independent professionals (23%), followed by accounting firms (16%) and industry (13%). Within the last of them, were highlighted different types of industries such as waste, chemical, forestry, oil and agribusiness. Previous groups were followed by consulting (13%) and government organizations (3%).

The next question is what profits consulted estimate that report or will report the carbon credits to businesses. The results were:

**Table 6. Benefits reported or estimated carbon report to the companies**

Attract investment funds, technology	54%
Tax Benefits	22%
Global Competitive Positioning	19%
Other	5%
Total	100%

**Source:** Own Elaboration

To their question, the majority of respondents said they believe that the benefits derived from carbon bonds are attracting investment, funds and technology (54%). Much also considered that will allow businesses to obtain tax benefits (22%).

Thirdly, 19% of respondents felt that the carbon will allow companies to achieve global competitive positioning, while a smaller percentage (5%); believes that will lead to other benefits such as achieving mentioned greater environmental commitment or corporate leverage.

Nevertheless, over 50% of respondents agreed that bring not just one type of benefit, but will report more of them together.

Respondents added that although the most important benefits are not obtained yet, they hope to achieve the strengthening of emerging technologies, improving cash flows by the participants, the best international country level positioning and momentum to technological improvements.

Subsequently, questions were asked about the type of regulation they thought should exist for carbon credits. The respondents' answers were:

**Table 7. Type of control they think should exist for carbon**

Governmental	60%
Professional Accounting	32%
Other	8%
Without regulation	0%
Total	100%

Source: Own Elaboration

The type of government regulation obtained the highest percentage (60%), although the regulation relating to the accounting profession was also selected by a large number of respondents (32%). A minority (8%) felt that the regulation should be mixed: public-private partnership. In the interviews highlighted that although it is understood that government regulation is, from the various professions involved should move beyond the mere regulation to include affected individuals, such populations venture near the CDM.

The next question raised is related to the timing of accounting recognition on carbon bonds. The responses of the respondents were summarized in the following Table.

**Table 8. Timing of recognition of carbon bonds**

CDM project approval	42%
Issuance of CER	42%
Other	12%
Sale and delivery of the CER	4%
Total	100%

Source: Own Elaboration

In their case, a majority group and the same number of respondents felt that the timing of recognition of carbon credits should be with the approval of CDM project (42%) or with the issuance of CER (42%). A smaller percentage (12%) opted for other alternatives and finally 4% felt that it should be recognized with the sale and delivery of the CER. In interviews mentioned that once the reductions have been validated by the DOE (Designated Operational Entity), the CDM-EB will issue the amount of CERs requested and audited. From

then on, just subtract the time required for issue and therefore the same are to be recognized at the time of validation of the reductions.

The last of the points raised were referred to the most appropriate classification for carbon credits. The answers were:

**Table 9. Best suited ranking for carbon credits**

Intangibles	64%
Investments	18%
Fixed assets	9%
Other	9%
Total	100%

**Source:** Own Elaboration

A majority group of 64% of respondents felt that the most appropriate form of recognition of carbon credits would be as intangible. However, 18% opted for recognized as investments. There was also a lower proportion (9%) who felt that it should be recognized as the carbon assets. The interviews provided a fundamental position that the CER's are the result of CDM plans, and when consumed in its first use (sales) turn out to be real for the exchange.

## CONCLUSION

The implementation of the Kioto Protocol in Argentina, in particular with regard to CDM projects; presents financial, tax and accounting aspects that are being affected by the diverse opinions and interested in the subject.

The knowledge on the topic of stakeholders is still initial, but there has been since 2008 to the present a significant increase of the same. Regarding the benefits of CDM projects, interviewed respondents they believe that the benefits derived from carbon bonds are attracting investment, finance and technology. A large proportion of respondents also agreed that it will allow businesses to obtain tax benefits.

Regarding the missing type of regulation on the subject, the government obtained the highest percentage, although the regulation corresponding to the accounting profession was also selected by a large number of respondents.

Regarding the financial implications for companies developing CDM projects under the carbon market in Argentina and the rest of the non-Annex 1, there are two substantive issues under discussion; derived from being a recent problem and still unexplored: the time should

make the recognition of carbon credits and how to make the recognition of them at different times.

The right time for survey, presents several alternatives related to the different stages of CDM project progress: the time of CDM project approval and the issuance of CERs and the sale and delivery of the CER, while the recognition by companies CDM project developers may include expenditures; intangible assets and different types of investments.

In their case, the same number of respondents felt that the timing of recognition of carbon credits should be with the issuance of CER or should be made upon the approval of the CDM project.

Many of the respondents felt that the most appropriate form of recognition of carbon credits would be as intangible. However, another important group chose it should be recognized as investments.

The advancement of the accounting issues arising from CDM projects in Argentina is linked to the progress of the Kioto Protocol, to regulations adopted by the International Financial Reporting Standards (IASB, 2011) and specific regulations that may arise in the Argentine field.

## **BIBLIOGRAPHY**

Please refer to articles Spanish Bibliography.