

Flexibility Mechanisms in the Kyoto Protocol: Constitutive Elements and Challenges Ahead

Jaume Saura Estapà

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[See table of contents](#)

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Article abstract

Climate change has become in the past decades one of the major global problems that humanity must face. In order to try to stop it, and eventually reverse it, the international community has adopted the United Nations Framework Convention on Climate Change (1992) and the Kyoto Protocol (1997, not yet in force). The Protocol sets quantified commitments for developed countries concerning the reduction of emissions of greenhouse gases, but also the possibility to comply with such commitments in a flexible manner, through three instruments: joint implementation, the clean development mechanism and emissions trading. The inclusion of additional instruments addressed to facilitate the curbing of emissions at a low cost, the so-called *flexibility mechanisms*, was a key element that allowed the final agreement to be reached. The paper describes briefly the main developments of the climate change regime and of each of these mechanisms. It then outlines their common constitutive elements, while underlining the aspects that remain unsolved, especially relating to their supplemental character to domestic action and the fact that any project approved under the JI or the CDM must provide a reduction in emissions that is *additional* to any that would otherwise occur. Throughout the examination of both the elements and challenges of the three mechanisms, the position and inputs coming from the European Union and its Member States within the climate change regime are also analysed.

Flexibility Mechanisms in the Kyoto Protocol: Constitutive Elements and Challenges Ahead

JAUME SAURA ESTAPÀ

Professor of Public International Law,
University of Barcelona, Spain

ABSTRACT

Climate change has become in the past decades one of the major global problems that humanity must face. In order to try to stop it, and eventually reverse it, the international community has adopted the United Nations Framework Convention on Climate Change (1992) and the Kyoto Protocol (1997, not yet in force). The Protocol sets quantified commitments for developed countries concerning the reduction of emissions of greenhouse gases, but also the possibility to comply with such commitments in a flexible manner, through three instruments: joint implementation, the clean development mechanism and emissions trading. The inclusion of additional instruments addressed to

RÉSUMÉ

Au cours des dernières décennies, les changements climatiques sont devenus l'un des problèmes majeurs auxquels l'humanité est dorénavant confrontée. En vue de freiner et éventuellement mettre fin à ce phénomène, la communauté internationale a adopté la Convention-cadre des Nations Unies sur les changements climatiques (1992) et le Protocole de Kyoto (1997, non en vigueur). Le Protocole propose des engagements pour les pays développés relativement à la réduction des gaz à effet de serre ainsi que des modalités souples de mise en application de ces engagements au moyen de trois mécanismes, dont la mise en application conjointe et le développement propre.

facilitate the curbing of emissions at a low cost, the so-called flexibility mechanisms, was a key element that allowed the final agreement to be reached. The paper describes briefly the main developments of the climate change regime and of each of these mechanisms. It then outlines their common constitutive elements, while underlining the aspects that remain unsolved, especially relating to their supplemental character to domestic action and the fact that any project approved under the JI or the CDM must provide a reduction in emissions that is additional to any that would otherwise occur. Throughout the examination of both the elements and challenges of the three mechanisms, the position and inputs coming from the European Union and its Member States within the climate change regime are also analysed.

L'inclusion de moyens additionnels préconisés pour faciliter le fléchissement des émissions à coût moindre s'est révélée un élément clé qui a permis la conclusion de l'accord. La présente étude décrit brièvement les principaux développements dans l'évolution de chacun des mécanismes de protection contre les changements climatiques. Elle se consacre ensuite à présenter leurs principaux éléments constitutifs, tout en soulignant les aspects qui demeurent pour l'instant non résolus, tout en consacrant une attention particulière aux prises de position de l'Union européenne et ses membres.

TABLE OF CONTENTS

Introduction.....	109
I. General context : From the Framework Convention to Flexibility Mechanisms	110
II. Brief Description of the Flexibility Mechanisms	113

III. Flexibility Mechanisms : Elements and Challenges	116
A. Basis of the flexibility mechanisms	118
B. Flexibility mechanisms as supplemental instruments to domestic policies and measures	119
C. Fungibility of titles	122
D. Eligibility requirements to participate in the flexibility mechanisms.....	123
E. The participation of the private sector in the flexibility mechanisms.....	124
F. Issues relating to compliance under the Kyoto Protocol	127
IV. Further Common Elements of Joint Implementation and the Clean Development Mechanism.....	129
A. Real, measurable and long-term reductions of emissions : admissible categories of projects.....	130
B. The “additionality” requirement.....	136
V. Final Remarks.....	139

INTRODUCTION

Climate change has emerged during the past two decades as one of the major problems that the international community must face. A problem that spreads out beyond the national frontiers and affects unevenly both countries and populations, without any consideration to the degree of their respective historical responsibility in building it up. From a political and legal perspective, the international community has tried to face this challenge by establishing an international legal regime structured around the 1992 UN Framework Convention on Climate Change (hereinafter the Convention) and the 1997 Kyoto Protocol (hereinafter the Protocol). The Protocol, which constitutes the main legal development of the Convention, sets quantified commitments for certain countries concerning the reduction of emissions of greenhouse gases (GHG).

This paper deals with one of the pillars of the regime established in the Kyoto Protocol : the so-called flexibility

mechanisms, emissions trading, joint implementation and the clean development mechanism. The three mechanisms have been developed in the annual Conferences of the Parties to the Framework Convention (COP) during the years following the Kyoto Session. Particularly important are the decisions adopted in Marrakech, in the session held in November 2001 (COP 7), though some aspects were postponed to the Milan Session (1-12 December, 2003). By carefully analyzing the Protocol and its normative developments, we can outline some constitutive elements that are common to the aforementioned mechanisms, as well as be aware of the aspects that remain unsolved. These elements and challenges constitute the core of this paper, which also intends to underline the position of the European Union and its Member States in this respect (but not the legal developments in EU Law as such). Likewise, in order to describe the adequate political and normative context within which flexibility mechanisms should be regarded, we shall previously give a general overview of the regime that the Convention and the Protocol lay down.

I. GENERAL CONTEXT : FROM THE FRAMEWORK CONVENTION TO FLEXIBILITY MECHANISMS

By setting out a sort of three concentric circles, Article 4 of the Framework Convention on Climate Change reels off the commitments assumed by the Parties in three different categories. First, all Parties are included under the outer and widest circle, which lays down obligations concerning documentation, information and cooperation between Parties, and promotion of technologies for controlling, reducing and preventing the emissions of greenhouse gases. Then, a more restricted circle — the second one — includes developed countries and countries with economies in transition listed in Annex I of the Convention. These countries are specifically obliged to reduce their GHG emissions, as well as to create and keep sinks and natural reservoirs for greenhouse gases. In particular, the Convention aspires to return individually or jointly to the 1990 levels of

GHG emissions by the year 2000.¹ As Campins has noted, “by laying down such a deliberately ambiguous and vague provision, the Convention takes the first step for the future establishment of quantified objectives concerning the limitation and reduction of emissions of greenhouse gases, which finally materialized in the Kyoto Protocol”.² Finally, developed countries alone, — essentially the OECD countries —, listed in Annex II commit themselves to provide new and additional financial resources, including for the transfer of technology for developing countries to comply with their obligations under the Convention. These developed countries shall also assist the developing country Parties that are particularly vulnerable to the adverse effects of climate change in meeting the costs of adaptation to those adverse effects.

Since the Convention was negotiated with the utmost urgency, many of these commitments could not be specified to a great extent — in particular, the objective of the limitation of emissions of greenhouse gases. That is why the Convention is established as a mere frame of a subsequent international legal regime on climate change. As Chueca has noted, “we are in front of an initial text that sets forth the general obligations of the Parties; this first stage will be completed afterwards. That is why the Convention’s life cycle is neither closed nor univocally-oriented, but rather adaptable to the varying circumstances that climate change may eventually bring about in the future. This adaptation may imply the modification of the Convention itself, via amendment, or may take the form of additional instruments that complete it, via annexes and protocols.”³

1. The concrete wording of the provision does not allow to understand that it establishes a genuine obligation, but rather a general aspiration. In this sense, see C. BREIDENICH, D. MAGRAW, A. ROWLEY, J.W. RUBIN, “The Kyoto Protocol to the United Nations Framework Convention on Climate Change”, (1998-2) 92 *American Journal of International Law*, p. 323.

2. See M. CAMPINS ERITJA, “La acción internacional para reducir los efectos del cambio climático: el Convenio Marco y el Protocolo de Kyoto”, (1999) Vol. XV *Anuario de Derecho Internacional*, p. 86.

3. See A. CHUECA SANCHO, *Cambio Climático y Derecho Internacional*, Fundación Ecología y Desarrollo, Zaragoza, 2000, p. 39. Likewise, see L. BOISSON DE CHAZOURNES, “La gestion de l’intérêt commun à l’épreuve des enjeux économiques — Le Protocole de Kyoto sur les changements climatiques”, (1997) *Annuaire Français de Droit International*, p. 702.

The Kyoto Protocol, adopted on December 11, 1997, constitutes the most important development of the Framework Convention. In accordance with Article 3, which probably constitutes the core of the Protocol, the 39 developed countries and countries with economies in transition listed in the Annex B commit themselves to achieve certain specific levels of emissions of greenhouse gases within the period 2008-2012 (first commitment period), as compared to their levels of emissions of 1990.⁴ The specific commitments vary from the reduction of the 8 % assumed by each of the then 15 Members of the European Union⁵ and other countries, to the reduction of the 6 or 7 % respectively assumed by the USA and Japan. On the other hand, there are countries that commit themselves to a limited increase of their levels of emissions (Norway 1 %, Australia 8 %, Iceland 10 %), while other parties assume the commitment of keeping the 1990 levels — 0 % — (Russia, Ukraine and New Zealand). These figures globally considered represent a reduction of the levels of emissions of these countries slightly above 5 %, as established in Article 3.1 of the Protocol. Some authors have pointed out that, as far as this commitment means reversing a trend, it has a strong symbolic value, but not more than this. The commitments under the Kyoto Protocol, considered as such, “are neither adequate to address the issue of climate change nor based on any economic, scientific, or equitable principles”.⁶ The Protocol itself acknowledges this weakness by noting the need for future commitments that will be taken into consideration by

4. This multiyear formulation was devised to give parties greater flexibility in meeting their emissions reduction commitments and to take into account annual fluctuations, for example, from business cycles. See C. BREIDENICH et al., *loc. cit.*, note 1, p. 321.

5. At the negotiation process, the Members of the EU pointed out that they intended to use the possibility offered by Article 4 of the Protocol to fulfil their commitments jointly — by setting the “European bubble”, under which the total assigned amount is internally shared out. This decision has been formally expressed by the Council Decision of 25 April 2002, which can be found as an Annex to the document “Agreement between the European Community and its Member States under Article 4 of the Kyoto Protocol”, FCCC/CP/2002/2, of 12 June 2002. The bubble does not apply to the new Members of the enlarged Union.

6. See L. SRIVASTAVA, M. PATHAK, “Kyoto Protocol and its Mechanisms”, 1998 *Climate Change. Post-Kyoto Perspectives from the South*, TERI, New Delhi, p. 80.

the year 2005 at the latest, and will take the form of an amendment of Annex B to the Protocol (Article 3.9).

Despite this insufficiency, the agreement on the need for a quantified commitment regarding the limitation of GHG emissions, and the agreement on the precise quantification of these commitments, were reached only after lengthy and complex negotiations. Thus, it is clear that the inclusion of additional instruments addressed to facilitate the curbing of emissions at a low cost, the so-called flexibility mechanisms, was an element that allowed concluding such agreements. It is not accidental that three consecutive paragraphs of Article 3 (10, 11 and 12) directly refer to the concrete provisions that specify the characteristics of such mechanisms: joint implementation (JI-Art. 6), clean development mechanism (CDM — Art. 12), and emissions trading (Art. 17). A close and indissoluble relationship is therefore established between the commitments assumed by Annex B countries and the implementation of the flexibility mechanisms.⁷

II. BRIEF DESCRIPTION OF THE FLEXIBILITY MECHANISMS

The Kyoto Protocol outlines the objectives, functions and general features of the flexibility mechanisms. Upon this conventional basis, a brief description of each of these mechanisms could be as follows:

- a) Emissions trading means the possibility for those countries that have assumed commitments regarding the limitation of emissions to “sell” their “emissions rights”, their “right to pollute”, to other Annex B countries, when the former have over-met their emissions targets during the commitment period, and the second ones have not met their targets. This mechanism therefore consists on a sale operation, where the purchaser is the country that has released into the atmosphere a higher volume of tons of greenhouse gases

7. See F. YAMIN, “The Kyoto Protocol: Origins, Assessment and Future Challenges”, 1998-2 *Review of European Community and International Environmental Law*, p. 117; and F. MISSFELDT, “Flexibility Mechanisms: Which Path to Take after Kyoto?”, 1998-2 *Review of European Community and International Environmental Law*, p. 128.

than it was allowed by its Kyoto commitments, while the selling country is in the opposite position.⁸

- b) Joint Implementation (JI) allows a country that has assumed commitments concerning the limitation of emissions (or a legal person duly authorised and under its own responsibility) to invest in the implementation of a project that reduces emissions in the territory of another country. By contrast with CDM, Joint implementation necessarily requires the host country to be an Annex B country, i.e. to have also assumed commitments regarding the limitation of emissions of greenhouse gases, as established in the Kyoto Protocol.⁹ In fact, as far as the reduction of greenhouse gases is concerned, the success in the implementation of a project results in the accreditation by an independent party of certain “emissions reduction units”, which can be used by an Annex I Party when appropriate.
- c) Finally, the Clean Development Mechanism (CDM) allows Parties that have assumed commitments regarding the limitation of emissions of greenhouse gases to implement investment projects that reduce emissions in the territory of a Party that has not assumed such commitments. It operates on the basis of multilaterally agreed rules, under the authority of the Conference of the Parties serving as the meeting of the Parties to the Protocol (CP/MP), and under the supervision of an executive board. Once the reduction of emissions achieved by each project has been certified by certain “operational entities” on the basis of the rules agreed, the respective certificates may be used by the Annex B Parties to justify the compliance with their

8. From an economic perspective, YÁBAR understands that “within this market of ‘emissions rights’ the demand would come from those countries with the highest marginal costs for reducing emissions, and the offer would be constituted by the rest of the developed countries and countries with economies in transition”. See A. YÁBAR STERLING, “La aplicación de los mecanismos derivados del Protocolo de Kyoto para mitigar los efectos del cambio climático. Balance de situación en el mundo, en la Unión Europea y en España”, (February 2001) n. 193 *Noticias de la Unión Europea*, p. 129.

9. On the other hand, by contrast with emissions trading, which also takes place between countries that have assumed this kind of commitments, joint implementation is not based upon a direct sale and purchase operation of assigned amounts of emissions, but on project activities that have a positive impact in the mitigation of the greenhouse effect.

obligations under Article 3 of the Protocol.¹⁰ In addition, “a part” of the funds from these projects will be used to cover the administrative costs generated by the mechanism, as well as to help particularly vulnerable developing countries to adapt to the adverse effects of climate change.

On the basis of the elements provided by the Protocol, the Conference of the Parties serving as the meeting of the Parties to the Protocol is entrusted with the task of defining the modalities, conditions, agents and verification of these mechanisms. Since the Protocol has not yet entered into force, this task has been carried out provisionally by the Conference of the Parties to the Convention.¹¹ In fulfilling this mandate, COP 4 adopted the Buenos Aires Plan of Action (1998), which established the issues and calendar of the negotiation that should have finally led to an agreement within the sixth session of the Conference of the Parties (The Hague, 2000).¹² However, the said agreement could not be reached at that time,¹³ and the Conference was postponed to a second phase (Bonn, July, 2001), where consensus on key issues was finally reached. This consensus formally materialized in the seventh session of the Conference of the Parties

10. See J. WERKSMAN, “The Clean Development Mechanism : Unwrapping the ‘Kyoto Surprise’”, 1998-2 *Review of European Community and International Environmental Law*, p. 153.

11. Currently (July 2004), the Protocol has been ratified by 124 States, which make the 44.2% of the world emissions of greenhouse gases in 1990. The Protocol only requires 55 ratifications to enter into force, but these should represent 55% of such emissions. Since the USA is currently firmly against becoming a Party to the Protocol, the entry into force almost requires the participation of the rest of the Annex I States. The EU Members, and the European Community itself, have ratified the Protocol on May 31st, 2002. But Russia has recently (at the World Climate Change Conference held in Moscow between 29 September and 3 October 2003) cast serious doubts about its eventual participation in the Protocol.

12. See “The Buenos Aires Action Plan”, decision 1/CP.4, in *Report of the Conference of the Parties on its fourth session, held in Buenos Aires from 2 to 14 November 1998*, FCCC/CP/1998/16/Add.1, 20 January 1999, p. 4.

13. Decision 1/CP.6, “Implementation of the Buenos Aires Action Plan”, was adopted at The Hague Conference. This decision was accompanied by an Annex — Note by the President of the Conference of the Parties at its sixth session, dated 23 November 2000 —, which specifies some basic agreements reached during COP 6 and proposals for consensus from the Conference’s Chairman, Mr. Jan Pronk. See in *Report of the Conference of the Parties on the first part of its sixth session, held at The Hague from 13 to 25 November 2000*, FCCC/CP/2000/5/Add.2, 4 April 2001, p. 3-17.

(Marrakech, 2001).¹⁴ After an irrelevant, for our purposes, eighth session, COP 9 (Milan, 2003) has adopted, among other things, the controversial rules on modalities and procedures for afforestation and reforestation project activities under the CDM.

III. FLEXIBILITY MECHANISMS : ELEMENTS AND CHALLENGES

There is no doubt that the three mechanisms show certain common characteristics. Soon after the adoption of the Protocol, and in response to a G-77/China question, a group of developed countries identified the following points of similarity among the three mechanisms :

- All three voluntary market-based mechanisms work to the benefit of the environment (...).
- All three mechanisms will help Parties to meet their emissions target cost-effectively (...).
- All three mechanisms ultimately involve adjustments in the assigned amounts of Annex I Parties (...)
- All three mechanisms permit private sector participation, with responsibility for meeting Protocol obligations remaining with governments.¹⁵

14. See "Work Programme on Mechanisms" in *Report of the Conference of the Parties on the second part of its sixth session, held at Bonn, from 17 to 27 July 2001*, FCCC/CP/2001/5/Add.2, 25 September 2001, p. 15-61. The main decisions on flexibility mechanisms adopted at the Conference of Marrakech can be found in the *Report of the Conference of the Parties on its seventh session, held at Marrakech from 29 October to 10 November 2001*, FCCC/CP/2001/13/Add.2, 21 January 2002. Namely, decisions 15/CP.7 ("Principles, nature and scope of the mechanisms pursuant to Articles 6, 12 and 17 of the Kyoto Protocol"), 16/CP.7 ("Guidelines to the implementation of Article 6 of the Kyoto Protocol"), 17/CP.7 ("Modalities and procedures for a clean development mechanism, as defined in Article 12 of the Kyoto Protocol"), 18/CP.7 ("Modalities, rules and guidelines for emissions trading under Article 17 of the Kyoto Protocol") and 19/CP.7 ("Modalities for accounting of assigned amounts under Article 7, paragraph 4 of the Kyoto Protocol"). An analysis of both the negotiation process and the general contents of the agreements can be found in Rodrigo Hernández, A. : "Los acuerdos de Marrakesh alcanzados en la séptima reunión de la Conferencia de las Partes de la Convención Marco de las Naciones Unidas sobre el Cambio Climático", (2001) 1-2 *Revista Española de Derecho Internacional*, p. 331-342.

15. See *Responses to G-77/China questions on flexibility mechanisms*, submitted by Australia, Canada, Iceland, Japan, Norway, the Russian Federation, Ukraine, New Zealand and the United States of America. Doc. FCCC/CP/1998/MISC.7, of 5 October 1998.

Without understating the aforementioned considerations, we do believe that the elements that characterize the whole of the three flexibility mechanisms can be specified in a more detailed way as follows :

- The twofold economic and environmental basis of the establishment of the flexibility mechanisms, as well as their trans-national nature.
- The existing link between the mechanisms and the domestic measures for reducing emissions, through the concept of supplementarity.
- The fungibility or the exchangeable character of the titles that derive from these mechanisms;
- The establishment of certain eligibility requirements for Annex I Parties to participate in the mechanisms, as well as the establishment of measures to ensure the compliance with these requirements.
- The participation of the private sector, though the responsibility for meeting Protocol obligations remains with the governments.

Likewise, it is worth pointing out some additional common features of two of these mechanisms (JI and CDM), such as the establishment of a basic control structure, or the possibility of emissions reductions accruing from projects from the year 2000 onwards. However, in the next section we shall only focus on a twofold aspect that we consider to be essential to both mechanisms : the need to verify the requirements concerning “additionality” and the measurability of the reductions of greenhouse gases in the long term.

Not all of these common elements are perfectly defined and shaped after the Marrakech and Milan Conferences. As explained below, some of them pose problems and questions that the Conference of the Parties has not yet resolved, or has resolved in an unsatisfactory way. The following pages are devoted to analyzing these elements. In doing so, we will enhance the remaining challenges regarding the normative development of the Protocol, and underline the position that the European Union and the Member States have defended in this respect.

A. BASIS OF THE FLEXIBILITY MECHANISMS

The three mechanisms have a common foundation of a mixed character : economic and environmental. They can be regarded as paths to “introduce the market dynamics at an international scale in order to facilitate Parties to meet their commitments in a more satisfactory way (...), in such a way that the assumed targets can be cost-effectively achieved (i.e. at the lowest economic cost possible)”.¹⁶ As a matter of fact, greenhouse gases remain in the atmosphere during a long period of time, and there is the possibility of migrations at global scale. Thus the specific datum on where the source of emissions, or the source of emissions reduction, is placed is not a very relevant fact from this global perspective.¹⁷ Having this in mind, and taking into account certain considerations concerning scale economies and other synergies, it appears that emissions can be reduced in certain countries at a lower cost than in other countries, even if the latter have higher emission levels. Reducing emissions in the former can be therefore regarded as a more convenient and efficient way to achieve the pursued objectives. As it has been noted by certain authors, “the principle behind the market-based approach is to treat the environment as a truly scarce resource by establishing limits to its use”.¹⁸ So, flexibility mechanisms allow assigning a reduction of GHG emissions to a Party, despite the said reduction actually taking place within the territory of another country. In doing so, certain requirements, formalities and compensations must be met.

From the above considerations it results that flexibility mechanisms have a geographical or trans-national character; in other words, these mechanisms imply that the activities addressed to reduce greenhouse gases that are implemented

16. See A. YÁBAR STERLING, *loc. cit.*, note 8, p. 128.

17. See M. CAMPINS ERITZA, *loc. cit.*, note 2, p. 93.

18. See SANDOR, BETTELHEIM, SWINGLAND: “An Overview of a Free-market Approach to Climate Change and Conservation”, (2002) 360 *Phil. Trans. R. Soc. Lond. A*. p. 1608. YAMIN notes that, even though most of the economists militate in favour of their inclusion, many developing countries and the European Union expressed concerns at this point, which were mainly based upon pragmatic and equity reasons — having in mind the relative scantiness of the commitments assumed. See F. YAMIN *loc. cit.*, note 7, p. 121.

within the territory of a concrete country count to another country's credit. Thus the "flexibility" of these mechanisms means a geographical flexibility, which relates to the place where the measures addressed to limit the concentration of greenhouse gases in the atmosphere are implemented. It has to be stressed that some delegations (Japan, USA) tried to introduce flexibility mechanisms in Kyoto based upon the "time" element. This would have allowed the Parties to meet their targets in subsequent commitment periods (with the enforcement of some sort of sanction) if they could not meet them within the first commitment period.¹⁹ The proposal was not accepted because of the severe opposition of the Members of the European Union, developing countries and NGOs, although it has actually come back indirectly in the Marrakech Conference, via the compliance procedures and mechanisms.²⁰

B. FLEXIBILITY MECHANISMS AS SUPPLEMENTAL INSTRUMENTS TO DOMESTIC POLICIES AND MEASURES

Flexibility mechanisms are linked to the different national policies and actions for the purpose of reducing emissions and must therefore constitute a complement of the activity that each Annex B country carries out at the domestic level. That is to say that flexibility mechanisms are meant to "assist" countries to comply with their commitments, and they are not "means" for meeting the said commitments in strict sense. This common element of the three mechanisms is based upon effectiveness and equity reasons. As Srivastava and Pathak note :

If these mechanisms are used by developed country parties to meet their reduction commitments through projects undertaken in a foreign sovereign without actual reduction of emissions at home, then what is actually taking place is an

19. See F. YAMIN, *loc. cit.*, note 7, p. 120.

20. As will be explained below, the sanction associated to the non compliance of the commitments consists on increasing the commitment for the next period by thirty percent of the GHG's metric tones in which the non compliance has been quantified.

eventual transfer of emissions. Because the eventual level of GHG concentration in the atmosphere is at the core of the solution to the climate change problem, this transfer of emissions results in increased uncertainty regarding this very fact. (...) Hence the need for caps. Caps would further ensure that the entire onus for reducing GHG emissions is not borne by the developing countries.²¹

However, the Protocol does not define the scope of supplementarity, nor does it specify the extent to which the commitments should be met through domestic measures. Once the Protocol was adopted, developing countries requested the establishment of specific limits on the basis of "quantitative and qualitative criteria". EU Members followed up on this idea by defending that at least 50 % of the commitments assumed by each Party should be met at the national scale. The European Commission understood that the commitments under the Kyoto Protocol should be mainly met through domestic measures. In addition, the Commission noted that domestic policies and measures have further benefits beyond reducing greenhouse gases. Such benefits include the reduction of other pollutants, the improvement of urban air quality, reductions of road congestion, security of energy supply, encouragement of technological development, etc.²² By contrast, other countries such as the USA, Russia or Japan have been always reluctant to any attempt to quantify supplementarity.²³

From the European perspective, the question has not been satisfactorily resolved in the Conference of Marrakech, which results regarding this point are not strictly consistent with the agreements reached at The Hague. At the COP 6 (part one) it had been proposed that Annex I Parties would *primarily* meet their emissions targets through domestic

21. See L. SRIVASTAVA, M. PATHAK, *loc. cit.*, note 6, p. 84-85.

22. See Communication from the Commission to the Council and the European Parliament "Climate Change. Towards an EU Post-Kyoto Strategy". Doc. COM(98)353, p. 27. The EU specified its initial proposal later on by using a rather complex formula to calculate the limits to the use of the three mechanisms, which included different alternative options. (See doc. FCCC/SB/1999/MISC.3/Add. 3, 4 June 1999, p. 14).

23. See doc. FCCC/SB/1999/8, of 28 September 1999, p. 24. See also F. YAMIN, *loc. cit.*, note 7, p. 122.

measures adopted from 1990 onwards.²⁴ In the EU's understanding, the word primarily meant that "the use of the mechanisms under Articles 6, 12 and 17 shall not exceed reductions achieved through domestic actions as reported in national communications and reviewed under Article 8".²⁵ Notwithstanding, decision 15/CP.7, adopted in Marrakech, establishes that "the use of the mechanisms shall be supplemental to domestic action and that domestic action shall thus constitute a *significant element* of the effort made by each Party included in Annex I to meet its quantified emission limitation and reduction commitments under Article 3, paragraph 1".²⁶ There is no doubt that the wording of the decision does not allow Parties to meet the whole of their obligations concerning the limitation of GHG emissions by exclusively using flexibility mechanisms (which was precisely the possibility the USA and other Annex I countries meant to introduce). However, the wording is too ambiguous and insufficient from the perspective of the position adopted by the European Union. Apart from avoiding compliance exclusively based upon the use of the said mechanisms, future controversies on the meaning of "significant element" cannot be excluded. For instance, one can anticipate future discussions on whether meeting 10, 20 or 30 % of the obligations within the national territory constitutes a "significant element" of the effort made by each Party or, on the contrary, this "significant element" should represent at least 50 % of the obligations assumed by each Party (as the EU defended, and as it would have been the case if the word primarily had been maintained). The lack of agreement on the precise extent to which flexibility mechanisms can be supplemental to

24. See decision 1/CP.6, *loc. cit.*, note 13, page 11. As it has been mentioned previously, the content of decision 1/CP.6 was elaborated by the Chairman of the Conference on the basis of the outcomes from the debates within the session, without being submitted to the voting procedure.

25. See "EU submission on the COP 6 President's note of 23 November 2000" in doc. FCCC/CP/2001/CRP.2, p. 5. The Commission (at its "Briefing paper" of 6 July 2001, previous to the second part of the Sixth session of the Conference of the Parties) considered that the text agreed in The Hague constituted an "improvement and a good basis for the forthcoming negotiations".

26. Italics by the author. See *Report of the seventh session of the Conference of the Parties* in FCCC/CP/2001/13, Add.2, *loc. cit.*, note 14.

domestic measures enhances the importance of the role of the mechanisms in the future; but, from a wider perspective, it must be accepted that it severely jeopardises the guarantee of the environmental benefits that the system established by Kyoto should provide.

C. FUNGIBILITY OF TITLES

Using flexibility mechanisms will result in obtaining certain titles that allow Annex I Parties to make adjustments in their assigned amounts of greenhouse gases. This implies the need of using some sort of unit for measuring the reductions achieved, and raises the question regarding whether the said unit should be a common one for the three mechanisms. A related issue is whether these mechanisms generate fungible or exchangeable titles or not. Both the Convention and the Protocol give a positive answer to the first question, since they use the “carbon dioxide equivalent” as a common measuring unit for the different types of greenhouse gases. From this starting point, the European States have defended the advisability of homogenizing the value of the ERUs under the different mechanisms in “one metric tonne of carbon dioxide equivalent emissions”,²⁷ which coincides with the opinion expressed by a group of experts consulted by the UNCTAD to discuss the CDM.²⁸ However, some countries, as China, were against the possibility of making exchangeable the reduction units that derive from the different mechanisms.²⁹ Finally, although the different decisions adopted at COP 7 define

27. See, among others, the document submitted jointly by the Members of the European Union and eight other European countries concerning the three different mechanisms, irrespective of the name of the emission reduction unit (in FCCC/SB/1999/MISC.3, *loc. cit.*, note 22, p. 17, 24, 29). See also the Australian proposal on behalf of a group of developed countries (doc. FCCC/CP/1998/MISC.7/Add.4, *loc. cit.*, note 15, p. 3).

28. For this *ad hoc* group of experts, “in order to encourage the maximum development of hybrid GHG emissions trading markets, all practicable steps should be taken to ensure the fungibility of the three tradeable commodities... established under the three flexibility mechanisms”. See STEWART, R. (lead author), *The Clean Development Mechanism. Building International Public — Private Partnership Under the Kyoto Protocol*, UNCTAD, Geneva, 2000, p. 10.

29. See “Inputs from China on CDM” in doc. FCCC/SB/1999/MISC.3, 30 March 1999.

“emission reduction unit” (JI), “certified emission reduction” (CDM) and “assigned amount unit” (ET) as independent concepts, all of them are equal to “one metric tonne of carbon dioxide equivalent”.³⁰ They can be used by the Annex I Parties to comply with their commitments under paragraph 1 of Article 3 and can be added in accordance with Article 3 (paragraphs 10, 11 and 12) of the Protocol. Thus, it must be understood that the different titles deriving from the flexibility mechanisms have a fully exchangeable character to prove compliance under the first commitment period. It seems a sound solution given that they are legal instruments that have an identical change value (metric tonnes of carbon dioxide equivalent), and share an identical final objective: to contribute to comply with the quantified commitments established for Annex B Parties.

D. ELIGIBILITY REQUIREMENTS TO PARTICIPATE IN THE FLEXIBILITY MECHANISMS

Reasons linked to the facilitation of the economic and environmental effectiveness of the system, as well as motives based upon a principle of equity, require the establishment of a number of conditions for the Parties to participate in the flexibility mechanisms. After several years of discussion, consensus on the eligibility requirements was reached in COP 7. Basically, in order to be eligible to participate in the mechanisms, the Parties must have ratified the Kyoto Protocol and be in compliance with their methodological and reporting commitments under the Protocol and related decisions. As the European Union had requested, “fulfilment of monitoring and reporting obligations under Articles 5 and 7 must remain a prerequisite condition for an Annex I Party to participate in any of the three Kyoto mechanisms”.³¹ In fact, it would be hardly understandable that a country that has refused to participate in the Kyoto Protocol could take some sort of advantage from its provisions; and, in the same sense, one can hardly admit that any Party in breach of the basic provisions

30. See the first point of the Annex to decision 16/CP.7, *loc. cit.*, note 14.

31. See Document “COP 7 — Issues to be tackled”, in the official web site of the European Union, <http://www.europa.eu.int>.

of the Convention takes advantages from any of the mechanisms (economic benefits and advantages related to the compliance with its limitation of emissions' commitments).³² In particular, Annex I Parties must comply with the following provisions :

- a) Article 3, paragraphs 7 and 8 : Parties must calculate and register their assigned amount of greenhouse gases in accordance with decision 19/CP.7 on the "Modalities for accounting of assigned amounts under Article 7.4 of the Kyoto Protocol".³³
- b) Article 5.1 : Parties must have in place a national system for the estimation of anthropogenic emissions by sources and removals by sinks of all greenhouse gases.
- c) Articles 5.2 and 7.1 : Parties must submit an annual inventory of greenhouse gases, as well as the necessary supplementary information for the purposes of specifying the assigned amount of each Party.
- d) Article 7.4 : Parties must establish a national registry of emissions by sources and removals by sinks of greenhouse gases.

Only after sixteen months from the submission of the national communication, and provided that the enforcement branch of the Compliance Committee has not found any sort of non fulfillment (definitively or *prima facie*), an Annex I Party is authorized to transfer and/or acquire emission reduction units (ERUs) or certified emission reductions (CERs).

E. THE PARTICIPATION OF THE PRIVATE SECTOR IN THE FLEXIBILITY MECHANISMS

Even though the Parties of the Protocol or their public entities may participate in the activities of a project imple-

32. Surprisingly, even though developing countries can take advantage from one of the flexibility mechanisms, the requirements only apply to Annex I Parties (safe for the need of being a Party to the Protocol). In fact, the provisions to which the decisions 16, 17 and 18/CP.7 refer establish obligations only to Annex I Parties. In our opinion, this should not disallow requiring non-Annex I Parties to comply with the obligations that they have assumed as Parties of the Framework Convention for the purpose of obtaining any benefit from the clean development mechanism.

33. See decision 19/CP.7, doc. FCCC/CP/2001/12/Add.2, *loc. cit.*, note 14, p. 61-80.

mented under the clean development or JI mechanisms, participation of private enterprises and companies — whether of national or transnational sharing — will be likely the modality most widespread used. Both Articles 6 and 12 of the Protocol expressly foresee such a possibility, which promotion has been given overriding priority by the European Union.³⁴ The interest of the private sector to participate in these activities may be anticipated for different reasons. Among others, the possibility of obtaining direct and/or indirect economic benefits, as well as the eventual need to comply with the obligations that the government of the country where the parent company is located will likely impose.³⁵ Nevertheless, participation can only take place through the authorisation of a Party;³⁶ and this Party, with which the responsibility in meeting its commitments from the Protocol remains, should ensure that such participation is consistent with the Protocol and related provisions. Likewise, the operations of transfer and acquisition of ERUs by these enterprises or companies necessarily imply that the authorizing country meets the eligibility requirements in any given moment.

The participation of private agents in emissions trading appears to be the most controversial issue in this context. By contrast with the Protocol's provisions on JI and CDM,

34. "To complement abatement action at home, use of Joint Implementation and the Clean Development Mechanism by companies should be encouraged. This can be done by recognising JI and CDM credits towards fulfilment of domestic obligations." See Final Report : ECCP Working Group 1 "Flexible Mechanisms", 2 May 2001, p. 6 (European Commission — DG Environment).

35. Given that the sources of emissions of greenhouse gases are often under the control of private companies and enterprises, it is possible to anticipate that Annex I Parties, in order to be able to comply with their international commitments, will impose obligations concerning the reduction of emissions to private persons and enterprises at domestic scale. It is also foreseeable that these enterprises will transfer such reductions to their foreign investments accordingly (for economic effectiveness' reasons). In this sense, see L. CAMPBELL, "The Role of the Private Sector and other State Actors in Implementation", in CHAMBERS, B. : *Global Climate Governance. Inter-Linkages between the Kyoto Protocol and other Multilateral Regimes*, UNU/IAS, 1998, p. 10.

36. The decision to use the concept of "authorisation" to link an entity with a country must be considered a wise one. This authorisation should be granted by a national (domestic) entity, through an express, clear and univocal decision. It does not matter the origin, seat of nationality of the enterprise. In fact determining the "nationality" of the entity would have opened a rather complex issue from the international legal perspective.

Article 17 does not contain any explicit reference to the involvement of private entities in the emissions trading mechanism. From the European Union's point of view,³⁷ this trait would not pose in principle an insurmountable barrier to such participation. However, since the functioning of this mechanism does not rely on any investment project, it seems that the role of the eventual private agents would consist on mediating between governments, and this would result in higher costs, and thus in private entities' participation being inconsistent with the economic dynamics of the system. In addition, the European Union had pointed out that the involvement of private entities in emissions trading "would increase the complexity of regulation and control to ensure that the environmental goals of the Protocol are met."³⁸ Perhaps these reasons lay beneath China's strong opposition to establish an "emissions market" with the involvement of brokers and mediators whatsoever.³⁹ Notwithstanding, this is not the only role that private entities can play within this mechanism. On the contrary, there is also the possibility of Annex I countries "allocating" maximum amounts of pollution (which globally represent the assigned amounts of emissions of each Party) to private companies, in such a way that the eventual surplus is directly traded between companies of these countries within an international market.⁴⁰

Finally, decision 18/CP.7 gives Annex I Parties the opportunity to authorize legal entities to transfer and/or acquire ERUs under Article 17, although it lays down certain safeguards that are meant to put each and every private entity under the "trusteeship" of an Annex I Party. In this sense, it has to be mentioned that the decision states (twice) has the

37. See, for instance, the opinion of the EU Members and other European countries in doc. FCCC/SB/1999/MISC.3, p. 28.

38. See Communication from the Commission to the Council and the European Parliament, doc. COM(98)353, *loc. cit.*, note 22, p. 26.

39. See doc. FCCC/SB/1999/MISC.3, *loc. cit.*, note 22, p. 11.

40. This is the purpose of Directive 2003/87/EC of the European Parliament and the Council of 13 October 2003, establishing a scheme for GHG emission allowance trading within the Community, and amending Directive 96/61/EC of the Council. The Directive is based upon the Commission's *Green Paper on greenhouse gas emissions trading within the European Union*, 8 March 2000, doc. COM(2000) 87 final. According to the Directive, emissions trading will start in 2005 and cover the Member States of the enlarged European Union.

responsibility for the fulfillment of the obligations under the Kyoto Protocol remains with the Party.⁴¹ Likewise, the Party shall maintain an up-to-date list of such entities. Finally, in accordance with the decision, legal entities may not transfer and/or acquire under Article 17 during any period of time in which the authorizing Party does not meet the eligibility requirements or has been suspended.

F. ISSUES RELATING TO COMPLIANCE UNDER THE KYOTO PROTOCOL

This paper is not the place to analyze in depth the substance of Article 18 of the Protocol, on non-compliance procedures and mechanisms, as it has been developed by COP 7 and beyond. Just let us note that, in relation to flexibility mechanisms, both the Facilitative and the Enforcement Branches, which integrate the future Compliance Committee, play a relevant role regarding the proper functioning of the system.

a) Facilitative Branch. The mandate of this Branch is to provide advice and support to the Parties in implementing the Protocol. In the framework of this mandate, and falling outside the mandate of the Enforcement Branch, this section of the Committee will be responsible for addressing questions of implementation relating to the provision of information on the use by an Annex I Party of Articles 6, 12 and 17 of the Protocol as supplemental to its domestic action. This Branch must also take into consideration that Article 3.2 of the Protocol requires each Annex I Party to have made demonstrable progress in achieving its commitments under the Protocol by 2005.⁴² The decision of the Conference of the Parties does not associate any specific

41. Paragraph 5 of the decision firstly states that "Transfers and acquisitions between national registries shall be made under the responsibility of the Parties concerned"; and subsequently adds that "A Party that authorizes legal entities to transfer and/or acquire under Article 17 shall remain responsible for the fulfilment of its obligations under the Kyoto Protocol and shall ensure that such participation is consistent with the present annex."

42. See Section IV, paragraph 5c) of decision 24/CP.7, "Procedure and mechanisms relating to compliance under the Kyoto Protocol", in FCCC/CP/2001/13/Add.3, p. 64. Likewise, decision 15/CP.7 on "Principles, nature and scope of the mechanisms pursuant to Articles 6, 12 and 17 of the Kyoto Protocol" also states this mandate in its fourth paragraph.

consequence to an eventual misapplication of the obligation to use flexibility mechanisms as supplemental to domestic action, since it can be considered as a provisional misapplication. It can be thus understood that such consequences will be narrowed to a recommendation to the Party concerned. However, it is hard to see what sort of recommendation it will be able to address, given the use of the ambiguous expression "significant element" when referring to the relative weight of the mechanisms. In fact, one of the best outcomes that could result from the functioning of this Branch would be a contribution to the shaping of this requirement in a more objective manner.

- b) Enforcement Branch. The mandate of this Branch is to determine whether a Party included in Annex I is in compliance with the eligibility requirements of the mechanisms.⁴³ When it has been determined that a Party has failed in complying with the requirements established in Articles 6, 12 and 17 of the Protocol, the Enforcement Branch will suspend the right of the Party to use the said mechanism or mechanisms. In such cases, it is very likely that the Party will automatically be involved in a failure of its obligations concerning the limitation of greenhouse gases, which will imply the enforcement of the measures established by decision 24/CP.7.⁴⁴

At this stage it is important to note that the Marrakech Conference did not foresee the possibility of the Enforcement Branch determining that a Party has not complied defini-

43. See Section V, paragraph 4 c) of decision 24/CP.7, *cit.* Likewise, paragraph V of decision 15/CP.7 states that "(...) eligibility to participate in the mechanisms by a Party included in Annex I shall be dependent on its compliance with methodological and reporting requirements under Article 5, paragraphs 1 and 2, and Article 7, paragraphs 1 and 4, of the Kyoto Protocol. Oversight of this provision will be provided by the enforcement branch of the compliance committee (...)"

44. Once it has been determined that a Party is not in compliance with the obligations under the Protocol, this Party shall submit to the Enforcement Branch for review and assessment a compliance action plan that includes : (a) An analysis of the causes of the non-compliance of the Party; (b) Action that the Party intends to implement in order to meet its obligations; and (c) A timetable for implementing such action. When the emissions of a Party have exceeded the assigned amount, this failure also implies a deduction from the Party's assigned amount for the second commitment period of a number of tonnes equal to 1.3 times the amount in tonnes of excess emissions.

tively with the obligation of using flexibility mechanisms as supplemental to its domestic action. This shows again that the Conference has deliberately adopted an expression as indeterminate as possible (“significant element”) when defining the role of domestic measures. Thus there is a real risk that the requirement of using flexibility mechanisms as supplemental to the domestic action will become in practice a mere formality.

IV. FURTHER COMMON ELEMENTS OF JOINT IMPLEMENTATION AND THE CLEAN DEVELOPMENT MECHANISM

As it has been shown, flexibility mechanisms established in Articles 6 and 12 of the Kyoto Protocol are based upon the curb on greenhouse gases’ emissions that may result from a project activity implemented by a country that has assumed commitments on the limitation of greenhouse gases within the territory of a host country. Such host country may have assumed parallel commitments in the case of joint implementation, or not — CDM —. Since both mechanisms rely on projects, an institutional structure for supervising their implementation has been established under the authority of the CP/MP. Nevertheless, it must be noted that while Article 12 of the Protocol explicitly refers to the Executive Board (CDM), the committee for supervising the provisions contained in Article 6 has been established by the Conference of the Parties at its 2001 session. Likewise, joint implementation has adopted certain elements that bring it closer to the CDM model, such as allowing emissions reductions to accrue from projects from the year 2000 onwards, or using “a part” of the funds from these projects to cover the administrative costs generated by the mechanism. The current section of this paper deals with two elements of paramount importance that lay in the foundations of both mechanisms, and that can be more specifically expressed as follows. First, both instruments must ensure that the reduction of emissions resulting from the projects approved (and, in particular, the certified emission reductions that derive from them) represents an additional reduction to any that would otherwise occur. Secondly, these projects should

bring about real, measurable, and long-term reductions of emissions. These requirements, which are identically expressed by the Protocol, have a different dimension depending on where the activities of the project are targeted.

**A. REAL, MEASURABLE
AND LONG-TERM REDUCTIONS OF EMISSIONS :
ADMISSIBLE CATEGORIES OF PROJECTS**

The issue concerning the achievement of real, measurable, and long-term benefits for the climate by implementing any project activity approved under the JI/CDM mechanisms is directly related to the categories of projects that are admissible within the framework of such mechanisms. This question becomes particularly complex as regards to the eligibility of projects whose contribution to the final objective of the Protocol does not derive from reducing emissions by the sources, but from removing greenhouse gases by biological sinks. On one hand, there is a strong political and scientific discussion on the suitability of carbon sinks for complying with the commitments relating to the limitation of emissions. This uncertainty should have been enough to put into question their inclusion among the admissible project activities under these mechanisms. On the other hand, the debate becomes more complicated because of the different wording of Articles 6 and 12. As a matter of fact, while Article 6 expressly refers to the enhancement of removals of greenhouse gases by sinks, Article 12 does not contain such a reference when describing the activities of the certifiable projects under the CDM.

In order to meet their commitments, Article 3.3 of the Protocol allows Annex I Parties to use removals of greenhouse gases by sinks resulting from direct human-induced land-use change and forestry activities, limited to afforestation, reforestation and deforestation⁴⁵ since 1990, measured

45. Paragraph 4 of Article 3 allows the CP/MP to enlarge the types of human-induced land-use change and forestry activities that can be used for complying with the commitments concerning the reduction of emissions in the future. At COP 6 it was provisionally decided to enlarge the range of eligible activities to grazing land management, cropland management and forest management (broadly defined land management activities), and revegetation (narrowly defined activity). See decision 1/CP.6, in doc. FCCC/CP/2000/5/Add.2, *loc. cit.*, note 13, p. 14.

as verifiable changes in carbon stocks. Afforestation and reforestation imply the plantation of forest mass. The difference between both concepts is that afforestation means to plant an entirely new forest (i.e. it implies a land-use change), while reforestation takes place where a forest recently existed. On the contrary, deforestation projects are targeted to avoid loss or degradation of forest mass.⁴⁶ By including these activities, Article 3 of the Protocol recognises that forests (due to photosynthesis) constitute an outstanding sink of greenhouse gases, and underlines that human action on forests (through enlarging forest areas or preserving endangered forests) contributes to achieve the final objective of reducing the atmospheric concentrations of greenhouse gases. But beyond these considerations, the economic interests of the Parties cannot be understated: For developed countries, planting or preserving forests (whether within the national territory or in a host country) is cheaper and implies a lesser negative macroeconomic impact than reducing emissions by sources in the agricultural or industrial sector. In addition, many countries where JI and CDM investments will be eventually targeted — developing countries and countries with economies in transition — feel themselves competitive in this field.⁴⁷ However, the scientific community generally considers that removals of greenhouse gases by sinks are more difficult to calculate than direct reductions by sources, and that it cannot be undoubtedly ensured that the said removals

46. See a detailed explanation of these notions in the IPCC's special report "Land Use, Land-Use Change and Forestry", ed. Cambridge University Press, 2000, that can be found at the website: http://grida.no/climate/ipcc/land_use (p. 47-49). In the Conference of The Hague, 2000, it was agreed to use these definitions officially in the Convention's Bodies. See decision 1/CP.6, *ibid.*

47. See, ad. ex., D. MARTINO, "Los sumideros de carbono en el Mecanismo de Desarrollo Limpio del Protocolo de Kyoto". The author, after having defended the suitability of afforestation, reforestation and deforestation for combating climate change, recognises that selling carbon sequestration could constitute a relevant element for the commercial balance of Uruguay. See in website: http://www.inia.org.uy/disciplinas/agroclima/publicaciones/ambiente/sumideros_carbono_Kyoto.doc.

On the other hand, a study of 1995 (mentioned by Gupta) calculated that the cost of an afforestation project in the Netherlands raised up to 6\$/metric tone of carbon dioxide, while the cost of such a project was estimated in \$2.8 in the Czech Republic. See J. GUPTA, *The Climate Change Convention and Developing Countries: From Conflict to Consensus?*, Kluwer, Amsterdam, 1997, p. 120.

contribute to reduce the atmospheric concentrations of GHG to the same extent as direct actions on sources.⁴⁸ That is why the EU has expressed “concerns about the scale, uncertainties and risks of sinks, in particular those in the CDM”.⁴⁹ As a matter of fact, in the context of the CDM, biological sinks pose at least two additional questions :

- a) On one hand, there are still uncertainties regarding their socio-economic impact, especially as regards to local communities. The assessment of the projects implemented during the pilot phase of joint implementation led the Climate Action Network to consider that “pilot sinks projects have had devastating impacts on indigenous populations, local environments and biodiversity”.⁵⁰ However, other opinions are not so radical. In this sense it can be mentioned that, although the IPCC points out the existence of possible risks, it also understands that additional positive impacts are likely to occur. These positive impacts would depend on the use that the land concerned formerly had, the alternative use to which the land could be destined, or the relevance of the role conferred to local communities in the selection of projects. In any case, most of the countries that have expressed their opinion on this matter recognize that there is a need for taking specific measures addressed not only to avoid adverse impacts of eventual forestry projects, but also to ensure that the said projects contribute to the sustainable development of the host country (which is one of the CDM’s objectives).⁵¹

48. See P. HASSING, M. MENDIS, “Sustainable Development and Greenhouse Gas Reduction”, *Issues and Options. The Clean Development Mechanism*, UNDP, New York, 1998, p. 152. Particularly complex issues derive from the fact that biological sinks are “reversible” : i.e. forests that are currently sinks for GHGs can become sources for a wide variety of natural (e.g. droughts) and human-induced reasons (e.g. forest fires). See “CAN Europe position on CDM sinks” (June 2002), page 2, in web <http://www.climatenetwork.org>.

49. See European Commission, “EU position for the Bonn conference on climate change 19-27 July 2001”, briefing paper, 6 July 2001, p. 7. Afterwards, though, it has accepted the fact that such activities were to be included in the CDM.

50. See “Non-paper on the deal adopted in Bonn. Mechanisms section”, in www.climatenetwork.org. Notwithstanding, the document “CAN Europe position on CDM sinks”, mentioned previously, contains a more nuanced opinion.

51. In particular, see the position of Bolivia, Chile, Costa Rica and Indonesia in the document “Land Use, Land-Use Change and Forestry. Consolidated synthesis of proposals made by Parties”, FCCC/SBSTA/2000/9, of 25 August 2000, p. 66-70.

b) On the other hand, since host countries have not assumed specific commitments relating to the limitation of emissions of GHG under the CDM, it would be necessary to put special emphasis on the monitoring and control measures applying to these projects. In fact, developing countries will never be affected by any legal consequence deriving from an eventual failure of an afforestation, reforestation or deforestation project.⁵² Furthermore, these countries would even obtain benefits from an afforestation project (from which ERUs for the investing Party would be credited), while an identical area of forestlands was being simultaneously deforested in a different place within the host country. Thus, precise rules regarding the functioning of the mechanism, as well as a rigorous and in the long-term control of the observance of such rules, appear to be necessary to avoid the type of undesirable effects we have just mentioned.

In any case, and due to these or other reasons, Article 12 of the Protocol does not contain any explicit reference to carbon sinks; and the absence of such an express reference can not be considered an accident. For instance, the President of the Negotiating Committee of the Kyoto Protocol, Raúl Estrada, has publicly said that these activities should not be admissible under the CDM.⁵³ Notwithstanding, a large part of the countries that participate in the climate change regime (excepting AOSIS, the Alliance Of Small Island States) has put pressure to fill this gap, some countries have defended the general admissibility of all types of projects relating to land-use change and forestry, while other countries considered that it would be preferable to reduce the range of admissible projects on the basis of their greater or lesser degree of

52. However, in cases of projects involving forestry activities taken as domestic measures, or as measures under Article 6 (among countries with commitments on limitation of emissions), the failure of the said projects brings about the need for the Parties concerned to comply with their commitments otherwise.

53. Declarations to the Bureau of National Affairs, *BNA International Environmental Daily*, of 18 March 1998, mentioned by Boisson de Chazournes, *loc. cit.*, note 3, p. 711.

uncertainty.⁵⁴ The European Union has maintained a fairly nuanced position in this respect. On one hand, the EU underlines the problems arising from the inclusion of sinks in the CDM (“inclusion of sinks in the CDM is questionable in view of the amount of work that remains to be done to answer questions relating to their permanence and additionality and to address their socio-economic and environmental impacts”); on the other hand, the EU would finally admit such an inclusion if these difficulties were overcome (“The EU continues to believe that a system for sinks in the long term needs to be based on sound scientific principles”).⁵⁵ As mentioned earlier, the EU has finally accepted the overwhelming majority’s position allowing some of these activities to be included among those eligible under the CDM. Nevertheless, it is worth noting that in its proposal to link joint implementation and the clean development mechanism to the European Union’s emissions trading system, the Commission explicitly excludes the possibility of transferring credits that may be generated through land use, land use change and forestry activities.⁵⁶

Thus, despite the pressure put by the NGOs accredited as observers in the successive Conferences of the Parties, some land-use change and forestry activities have been finally accepted within the context of the CDM. In particular, in the Conference of The Hague, the Parties decided to include afforestation and reforestation in the CDM, although they recognized the special concerns that derive from the implementation of such projects. On the contrary, conservation activities (i.e. activities aimed at preventing deforestation and land degradation) were explicitly excluded.⁵⁷ As a

54. Among the firstly mentioned, see the opinions Costa Rica, in the name of 14 Latin American countries, in doc. FCCC/SB/2000/MISC.1, Add. 2, of 16 June 2000, p. 1-5. Also, the USA and Bolivia. As for the second ones, Chile. See doc. FCCC/SBSTA/2000/9, *loc. cit.*, note 51.

55. See European Commission, “EU position for the Bonn conference on climate change...”, *loc. cit.*, note 49, p. 7.

56. See European Commission, “Proposal for a Directive of the European Parliament and of the Council amending the Directive establishing a scheme for greenhouse gas emission allowance trading within the Community, in respect of the Kyoto Protocol’s project mechanisms”, COM(2003) 403 final, 23 July 2003, p. 10.

57. See decision 1/CP.6, en doc. FCCC/CP/2000/5/Add.2, *loc. cit.*, note 13, p. 16.

matter of fact, even those that most firmly supported the inclusion of sinks in the CDM recognized that it is too difficult to determine “if” and “to what extent” deforestation would have taken place in the absence of the project’s activities. In addition, including these latter activities in the mechanism could constitute an incentive for exaggerating threats to forests.⁵⁸

Decisions 11/CP.7 and 17/CP.7, adopted in Marrakech, confirms the said selection of activities with an additional limit. For the first commitment period (2008-2012), the total of additions to a Party’s assigned amount resulting from these activities “shall not exceed one percent of base year emissions of that Party, times five”.⁵⁹ In addition, decision 17/CP.7 also entrusts the Subsidiary Body for Scientific and Technical Advice with developing definitions and modalities for including afforestation and reforestation project activities under the CDM, “taking into account the issues of non-permanence, additionality, leakage, uncertainties and socio-economic and environmental impacts”, with the aim of adopting a decision on these definitions and modalities at the ninth session of the Conference of the Parties (2003). Decision 19/CP.9, yet unedited at the time of submission of the present paper, defines the modalities and procedures for afforestation and reforestation project activities under the clean development mechanism. It regulates with a fair amount of detail issues such as validation and registration of projects, monitoring, verification and certification, etc. It addresses sufficiently the issue of non-permanence and additionality (see *infra*), while the problem of leakages is just mentioned in passing.⁶⁰

58. See P. BROWN, N. KETE, R. LIVERNASH, “Forests and Land Use Projects”, in *Issues and Options: The Clean Development Mechanism*, UNDP 1998, p. 164.

59. See decision 11/CP.7 (“Land use, land-use change and forestry”) in doc. FCCC/CP/2001/13/Add.1, p. 64. In accordance with this decision, the range of eligible activities within land-use, land-use change and forestry projects under Article 12 can be enlarged in future commitment periods.

60. It simply says that “An afforestation or reforestation project activity under the CDM shall be designed in such a manner as to minimize leakage” (Decision 19/CP.9, par. 24). See, by contrast, the specific provisions that had been proposed by Greece, on behalf of the European Community and its Member States, together with Latvia and the Czech Republic, on 17 March 2003 (doc. FCCC/SBSTA/2003/MISC.5, of 9 April 2003, p. 125).

B. THE “ADDITIONALITY” REQUIREMENT

Any project approved under the JI or the CDM must provide a reduction in emissions by sources, or an enhancement of removals by sinks, that is additional to any that would otherwise occur. The means of proof of such an “additionality” appear to be crucial for the credibility of both mechanisms as instruments for complying with the commitments established by the Kyoto Protocol. Notwithstanding, this requirement raises particularly complex issues in the framework of the CDM, given that, due to the nature of the Parties in presence, there is no point of reference for gauging the additionality of the benefits that derive from the projects concerning the limitation of emissions. In fact, since the host country has not assumed obligations concerning the limitation of greenhouse gases, both the host country and the investing country would obtain a great economic advantage from an initial excessive calculation of the data regarding the host country’s emissions of greenhouse gases. In this manner, any project would easily bring about “additional” benefits, and a larger number of ERUs could be certified. This would imply a higher economic value of the project, which could be shared between the host and the investing parties. But at the same time, these practices would have catastrophic global effects as regards to climate change, given that they would result in a general increment of greenhouse gases’ emissions, rather than in the reduction of these emissions.

This brings to the forefront the need to establish a clear baseline or point of reference that allows to determine the additional effects (or the absence of additional effects) deriving from the activity carried out under each project. Almost everybody is aware of the difficulties that arise in establishing these baselines. First, and without meaning to deal with too technical considerations, the said baseline essentially consists on a representation of an ideal scenario that, once each project has been implemented, will never materialize. In addition, it has been questioned whether this baseline should take the form of a more or less standardized point of reference (for each country, or for each sector), or, on the contrary, comparison should be made on a project by

project basis. Even though the first option seems to be a more reasonable and cheaper choice from an economic point of view,⁶¹ the second one appears to be a more dynamic and simpler option from a technical perspective. Besides, the comparison relating to a second subsequent project can not be made in the same way as it was carried out for a first project, given that the beneficial and additional effects from this first project should be taken into account when appraising the effects of the second project.

In the Conference of Marrakech, the Parties gave a different treatment to the questions concerning additionality of projects under Article 6 and Article 12 respectively.⁶² In both cases, the responsibility for setting the baseline remains with the participants in the project, in a transparent and balanced way, so that certified emissions reductions cannot be obtained from decrements outside the project's activities or from causes of *force majeure*. However, there are some differences that can not be understated as regards to the additionality required to the projects under the JI and the CDM respectively. These divergences have to do with the different definition of "baseline" applying to each instrument. In this sense, a baseline for a CDM project activity is the "scenario that reasonably represents the anthropogenic emissions by sources of greenhouse gases that would occur in the absence of the proposed project activity". On the contrary, a baseline for an Article 6 project is the average scenario that represents not only the anthropogenic emissions by sources, but also the "anthropogenic removals by sinks". Thus :

- a) As regards to the way for accounting the baseline, the absence of any reference to the removals by sinks under

61. In this sense, see D. SINISCALO, A. GORIA, J. JANSSEN, "Outstanding Issues", *Issues and Options. The Clean Development Mechanism*, UNDP, New York, 1998, p. 96.

62. See Appendix B of the decision 16/CP.7 and paragraphs 43 to 48 of the decision 17/CP.7. The latter decision just establishes certain guidelines to be developed by the Executive Board of the CDM. The Board has already undertaken such a task by appointing a panel of experts (Meth Panel) chaired by two of its members. This panel, which consists of ten experts chosen by the Board, was first established in July 12, 2002, and has met ten times till COP 9. It is making recommendations for baselines and monitoring plans to the Board. See "Report of the Executive Board of the Clean Development Mechanism", FCCC/CP/2003/2, 22 September 2003.

the CDM — despite the inclusion of afforestation and reforestation projects in the last moment — shows again that the scientific community is still reluctant to accept without reservations that these measures are suitable for combating the effects of climate change. On the contrary, including removals by sinks in the framework of joint implementation seems to be a quite logical decision, given that these kinds of projects were admitted in this context from the outset (i.e. from the moment in which this instrument was defined by the Kyoto Protocol).

- b) Requiring a “reasonable” scenario, as compared with the requirement of an “average” scenario, could be understood as a sign of flexibility within the definition of baseline (and, therefore, as a sign of a higher degree of weakness of the CDM with respect to joint implementation). And yet this is not quite the case. By contrast with the alternatives that JI allows when defining the baseline,⁶³ the said baseline under the CDM should always be a specific baseline for each project, and the choice of the baseline’s methodology should be made in a reasoned way and under the Executive Board’s guidance, among those listed in the decision 17/CP.7.

With regard to afforestation and reforestation projects, in the context of the CDM, Decision 19/CP.9 defines baselines again as “the scenario that reasonably represents the sum of the changes in carbon stocks in the carbon pools within the project boundary that would have occurred in the absence of the proposed project activity” (par. 19). It requires the baseline to be established by project participants in a transparent and conservative manner, and on a project specific basis, taking into account relevant national and/or sectoral policies and circumstances (par. 20).

The only concern the above set of provisions raise is that it would have been probably preferable to use a twofold baseline for each activity (i.e. national and on a project by project basis). The second one would allow to account the reductions

63. A baseline for each project could be set up, or a common emission factor for several projects. The baselines may take into account the “policies and domestic and sectorial circumstances”, although participants are finally requested to make a prudential calculation that takes into consideration the existent uncertainties.

specifically gained by the activity of the project itself, while the first one would prevent the positive effects of these activities being counteracted by domestic actions outside the project that are contrary to the goals of the Protocol (in the context of a country that has not assumed commitments regarding the limitation of emissions). This would imply a higher complexity in the validation and certification of each activity of the project, but, at the same time, it would result in the additional reduction of emissions achieved being more accurately and certainly determined.

V. FINAL REMARKS

The European Union, as an entity that expresses the common position of twenty-five (25) European countries, is an important actor within the framework of the negotiations of the regime applying to climate change, where it has had an active participation from the outset. The ratification of the Kyoto Protocol by the European Community and its then fifteen Member States in May 2002, proves again the existence of a Community's commitment regarding the combat against climate change and its adverse effects. In this context, the Union has defended to design flexibility mechanisms in such a way that they are consistent with the Protocol's environmental objective, and, simultaneously, allow achieving such an objective at the lowest economic cost possible. Even though negotiations in multilateral fora are always complex, particularly where multidimensional issues such as climate change are dealt with, the European Union has succeeded in maintaining a single voice that tries to conciliate its own interests, the concerns of the G-77, and the interests of the non-European industrialized countries (the Umbrella Group). The EU's position also tries to encompass the requests of the small island developing countries and the concerns of the oil producing countries. For these reasons, and with certain reservations, it can be said that the European Union's position regarding the development of flexibility mechanisms has been reflected in the agreements reached in the Conference of Marrakech and beyond. In this sense, it can be said that the contents of the Marrakech Accords substantially coincide

with the EU's position regarding most items of the negotiations, in particular: the geographical (and not temporal) basis of the mechanisms; the involvement of private entities even in the emissions trading mechanism (although under the Parties' responsibility); the fungibility of the titles deriving from these mechanisms; the establishment of minimum eligibility requirements for Annex I Parties, etc. Notwithstanding, a couple of exceptions to this general scenario must be pointed out: the inclusion of afforestation and reforestation activities in the CDM and, specially, the unsatisfactory definition of the way in which the mechanisms should be supplemental to domestic action. While the former has been partially addressed at COP 9, the later constitutes a vague and timorous definition that, together with an insignificant control by the compliance committee, will not only imply a political defeat for the European Union, but a potential risk for flexibility mechanisms finally having an adverse impact in the environmental field.

Jaume Saura Estapà
Faculty of Law
University of Barcelona
Av. Diagonal 684
08034 Barcelona (Spain)
Tel. : (34-9-34) 024426
Fax : (34-9-34) 029049
E-mail : jsaura@ub.edu