SIXTH FRAMEWORK PROGRAMME
PRIORITY 8: Policy-Oriented Research

SPECIFIC TARGETED RESEARCH PROJECT n°SSPE-CT-2004-503604

Impact of Environmental Agreements on the CAP

Document number: MEACAP WP2 D3 - Addendum
Dissemination level : public

Addendum to the report: The Kyoto Protocol: Current State and Implication for EU-25 Member States. A Focus on Agriculture and Forestry.

Authors : Bosello F., Buchner B.

Author's Organisation(s) : FEEM

Date: November 2004

Introduction

In this brief update we will analyse the implications of two important political developments regarding the ongoing Kyoto negotiation process. The first is Russia's decision to ratify the Kyoto Protocol, which, as a result, will now enter into force on February 16th, 2005. The second is the adoption, by the European Commission, of the so-called "Linking Directive". This Directive amends the EU Emissions Trading Scheme (ETS) by creating links with other flexibility mechanisms within the Protocol. A third purpose of this update is to present in greater detail the complex issues concerning carbon sinks In particular we describe how they can be integrated with the Kyoto-Protocol flexibility mechanisms and we present some possible future connections with the ETS and the "Linking Directive".

An overview on recent developments in international climate policy

2.1. Russia's Ratification

In July 2004, after President Putin's promise to speed up the ratification process, the positive signs towards Kyoto improved. Indeed, support for the ratification of the Kyoto Protocol seemed to be growing in Russia, and the signs were more positive than ever. In particular, Benedikt von Butler, the trading director for Evolution Markets in the US, called Mr Putin's statement the "kiss of life" for emissions trading (Wall Street Journal, June 2nd, 2004)[1].

However, opponents to the Kyoto Protocol strengthened their efforts to stop the progress of these developments. This was confirmed at the end of June by Russia's e-daily Ros Business Consulting (RBC) that stressed, based on statements of the local research group "Russia and Kyoto Protocol", that Russia can benefit from Kyoto only if it is guaranteed sales of 100-130 million tonnes of CO2 at a price not lower than 40 dollars per tonne.[2]

The subsequent period was characterised by intense internal debates with Russian officials apparently still divided on the issue of Kyoto.

On September 22nd, the World Wide Fund for Nature (WWF) reported that Russian President Putin had instructed key ministers to sign the Kyoto ratification documents. Although this was not immediately confirmed by Russian government sources, in the days after this announcement several ministers signed President Putin's package of ratification documents for the Kyoto Protocol. Then, on September 30th, the Russian government approved the Kyoto Protocol on climate change and sent it to parliament for ratification[3]. The necessary law on ratification, considered to be a mere formality, was expected to pass through the Russian parliament unhindered over the following weeks.

On October 22nd, the State Duma of the Russian Federation endorsed ratification of the Kyoto Protocol by a vote of 334 to 74. As a next step in the ratification process, Russia's upper house of parliament, the Federation Council, ratified the Kyoto Protocol on October 27th by a vote of 139 to 1, and sent it to President Putin for final approval[4]. On November 4th, President Putin signed a bill confirming Russia's ratification of the Kyoto Protocol, thus removing the last barrier for its entry into force and allowing the ratification papers to be sent to the United Nations[5]. The Kyoto Protocol will come into force on February 16th, 2005, 90 days after Russia's formal instrument of ratification had been deposited with the Secretary-General of the UN. The Protocol's entry into force makes the

[1] Reported by Wall Street Journal on June 2nd, 2004, in http://www.afr.com/articles/2004/06/01/1086058850473.html

[2] According to an analyst of this group only guaranteed annual carbon sales of 5 billion USD over 10-12 years can justify Russia's accession to the Kyoto Protocol.

[3] See BBC News, *Russia backs Kyoto climate treaty*, September 30th, 2004. Downloaded at http://news.bbc.co.uk/2/hi/europe/3702640.stm on September 30th, 2004.

[4] http://top.rbc.ru/english/index.shtml?/news/english/2004/10/27/27143328_bod.shtml

[5] Reported by Associate Press, see http://hosted.ap.org/dynamic/stories/R/RUSSIA_KYOTO_PROTOCOL?SITE=WAOLY&SECTION=HOME&TEMPLATE=DEFAULT

emissions targets for the 2008-2012 period legally binding for more than 30 developed countries, including Russia, Japan, Canada, New Zealand, Norway , Switzerland, and Member States of the EU.

2.2. Consequences of Russia's Ratification

The Russian ratification brings the Kyoto Protocol to the foreground once again and sends a strong signal on international climate policy and provides a firm foundation for European policy on GHG emission reduction.

Apart from the important political implications, the major economic consequence of Russia ratifying the Kyoto Protocol is to greatly increase access to "cheap" emission reductions provided by Russia's excess allocation of pollution rights (hot air). This, coupled with the absence of the US, who was expected to be one of the stronger buyers of permits in an international emissions trading system, is likely to considerably lower the price of carbon allowances and the compliance cost accordingly, particularly for countries with high marginal costs, such as the EU.

Please refer to FEEM's "The Kyoto Protocol Current State and Implications for EU 25 Member Countries: A Focus on Agriculture and Forestry" for an in depth analysis of cost issues.

2.3. The European Emission Trading scheme

In view of the ability to exploit cost minimisation opportunities introduced by emissions trading, the EU Emissions Trading Directive (2003/87/EC) established a mandatory cap-and-trade scheme for CO2 that will start in the European Union in January 2005.

According to the Directive, a large part of a country's emission targets are reserved for industry sectors (around 15,000 installations are covered), in particular:

- Energy: combustion > 20MW, mineral oil refineries, coke ovens;
- Ferrous metals: iron, steel;
- Mineral industry: cement, lime, glass, ceramic;
- Other: paper/board, pulp from timber.

Chemicals, transport, households, small emitters and of course agriculture and forestry sectors are not included.

The process will be split into two phases: from 2005-2007 a 3-year mandatory "warm up" phase concerning only CO2will be followed by repeating 5-year phases, from 2008 onwards, in which further sectors and GHGs will be included.

National governments are responsible for the allocation of allowances (EUAs) to particular sectors; these are generally allocated for free even though a small percentage can be auctioned (5% in the first phase and 10% in the second). National Allocations Plans (NAPs) have to be submitted to the EC for approval by 31 March 2004.

Under the operational phases, CO2 emissions will be monitored annually and each installation will need to surrender allowances equal to its emissions. Reporting duties will fall on companies while the controlling activity will be performed by independent agencies.

A penalty scheme has also been devised: each tonne of CO2 emitted in excess will be penalised with a fine of € 40 in 2005-2007 and of € 100 from 2008.

As previously mentioned, the EU ETS will start in 2005. While waiting for it to begin, companies are already exchanging EUAs. Given that EUAs have not yet been allocated to any private entities, the transactions in the market correspond to advance trading in which EUAs will be transferred from the seller to the buyer at a future date. In particular, the deals observed up to now involve vintages from 2005, 2006 and/or 2007 only.

Figure 1 summarises the carbon prices in this preparatory phase.

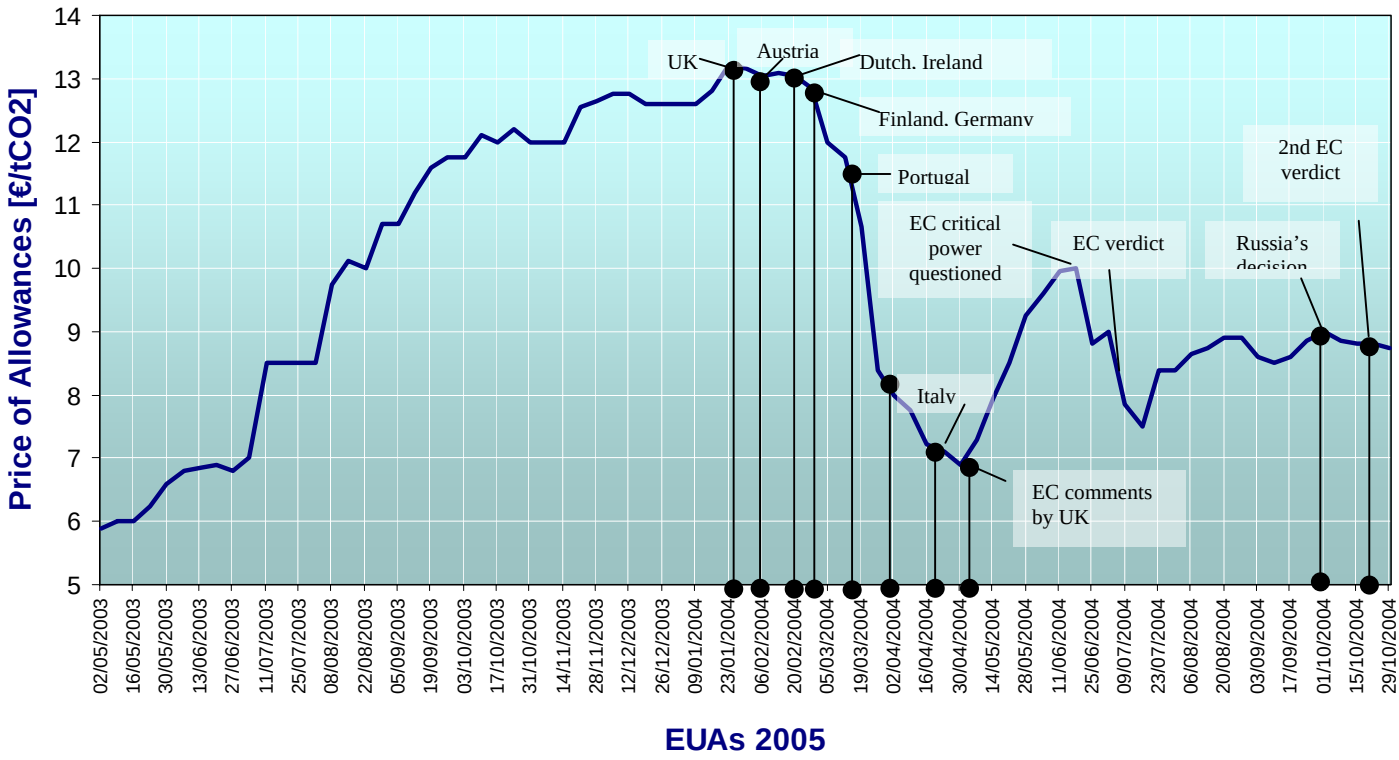
The main message that can be drawn by the picture is that NAPs were initially perceived as "generous" by the market, inducing no scarcity constraint[6]. This explains the drop of the carbon price observed from January to April 2004. Subsequently, the majority of the plans submitted were criticised for being weak, with many Member States permitting generous emission allowances to industry. The strong signals indicated the serious intention of the EC to assess the NAPs, resulted in an increase to the price level again in May. Nevertheless, the official EC evaluation of the first eight plans, probably responding to the politically sensitive nature of the issue, has been rather weak and unable to create scarcity in the market, leading to a bearish[7] reaction with significant decrease in the allowance price in July.

However, somewhat surprisingly, after this development prices have been steadily climbing (currently to around nearly 9 €/tonne CO2), and the market has showed clear signs for a potential recovery. The increase in the price level of the EUAs was unexpected given the first EU verdict. A partial explanation for the current trend is the strength of the demand side in relation to the supply side of the market. In addition, the second EC verdict in October - partly reacting to concerns raised after the first - seems to have created more scarcity on the market by reducing the overall allocations required by Member States. In particular, attention has been paid in order to avoid over-allocation by the new EU Member States, thus signalling the EC's intention to reduce the possibility of the Acceding Countries selling "hot air".

[6] Only five of the original fifteen Member States submitted their NAP in time for the 31 March 2004 deadline. The absence of Germany and the UK's NAP came as the biggest surprise in view of previous drafts. NAPs were finally submitted by a further four Member States including the UK and Germany by the end of May. Accordingly, the Commission announced infringement proceedings against six Member States: Belgium, France, Greece, Italy, Portugal and Spain, who had yet to submit their plans. Subsequently the other member states submitted their plans. The Commission adopted Decisions on the allocation plans of Austria, Denmark, Germany, Ireland, the Netherlands, Slovenia, Sweden, and the UK on 7 July 2004; on the plans of Belgium, Estonia, Finland, France, Latvia, Luxembourg, Portugal, and the Slovak Republic on 20 October 2004; and on the plans of Cyprus, Hungary, Lithuania, Malta and Spain on 27 December 2004. National allocation plans not yet assessed by the Commission are those of the Czech Republic, Greece, Italy and Poland. At present Austria, Germany, Finland, France, Spain and UK NAPs are conditionally approved, meaning that the Commission is asking for some changes. All the other NAPs are approved unconditionally.

[7] Bearish – showing a downward trend in bond prices

Figure 1: Carbon Prices in the EU Emissions Trading Scheme (May 2003 to October 2004), reflecting the effect of publication of NAPs.



Source: FEEM elaboration based on data from PointCarbon.

In general, the EC's decisions and Russia's announcement seem to have provided the market with more information, thus creating more certainty on future market conditions. As a result of crucial policy developments - especially the allocation process in the EU ETS, Russia's decision to ratify the Kyoto Protocol and the final approval of the Linking Directive – the market slowly found new levels, by taking the new information into account. As expected, Russia's ratification had very limited short-term effects for the EU ETS. Still, the Kyoto Protocol's entry into force has already resulted in several consequences for the EU ETS, evident for example, by the high level of carbon prices[8] .

[8] Experts predict a short- to mid-term increase in the allowance price, given that Member States will need to reduce emissions in trading as well as non-trading sectors, e.g. transport. In particular, the profiles of the NAPs, to be published for the second phase of the EUETS, are expected to be considerably stricter, as targets must be met. At the same time, Member States will benefit from the possibility of operating in a stable international legal environment at a higher degree of long-term certainty. In summary, when the Kyoto Protocol will become operational, EU ETS companies would be left with harder targets, but greater access to compliance credits and in particular regulatory certainty. For a more detailed discussion see PointCarbon, 'Russian Kyoto ratification could cause price hike in EU ETS', June 1st , 2004. Available online at http://www.pointcarbon.com/article.php?articleID=3807&sesstransport=2970b209894d62dbb0f9f874d69fc3d3%3A184d5a24f829b37eea274812e28410d1

2.4. The "Linking Directive"

On September 15th 2004, the EU foreign ministers formally adopted the so-called "Linking Directive". This Directive connects the EU ETS with the Kyoto Protocol's flexible mechanisms by giving firms direct access to credits from CDM and JI mechanisms as a means of meeting their emission caps. In particular, from 2005 firms will have direct access through the CDM to credits from countries not subject to Kyoto emission reduction targets, and from 2008 through JI credits. The text was approved by the European Parliament in April 2004, following a deal hammered out earlier by its rapporteur De Roo and council diplomats. On November 13th 2004 the Directive was published in the EU official journal, thus entering into force before the 1 January start date for trading.

2.4.1. Consequences of the "Linking Directive"

The Linking Directive introduces a stricter relationship between ET and the project-based activities of the Kyoto Protocol. It tries to increase the diversity of low-cost compliance options and to "improve market liquidity", according to the law's preamble. Consequently, probably in the medium term, this could offer either a stimulus or a disincentive to JI and CDM through the increased cost competition, which originated between the carbon-reduction opportunities offered by the ET market and those offered by flexibility projects.

At present, the market for pre-compliance project-based ERs represents by far the largest sub-market as measured by transaction volumes. It could be expanded further, if for example, the price in the carbon market was sufficiently high to induce some countries to increase project-based activities in order to get carbon credits that could be sold as allowances. On the contrary, should the price set in the carbon market be particularly low, emission reductions would be directly "bought" in the market rather than being obtained through JI and CDM.

These considerations are particularly relevant for CDM. At present, CDM has the largest impact on the aggregated volume of project-based transactions and is still steadily increasing their relative importance compared to JI and other projects. However, if the price of the EUAs declines significantly given their low scarcity on the market, then the low EUA prices are likely to dampen investors' interest in CDM and the CDM market might easily face a situation of much stronger competition than it does currently.

2.5. Sinks as a source of flexibility.

2.5.1 Sinks in the CDM

In the Marrakech Accords at COP 7, the parties agreed to allow afforestation and reforestation projects under the CDM, but did not agree on the detailed rules for such projects. In COP 9, Milan, the parties adopted a decision setting forth the modalities and procedures for sinks projects in the first commitment period (the treatment of sinks projects under the CDM for the second commitment period will be decided as part of the second commitment period negotiations). The decision completes the last remaining issue relating to the Kyoto Protocol under the Buenos Aires Plan of Action.

The main issue has been how to address the non-permanence of sinks projects. In particular, if a sinks project is destroyed – for example, a forest burns down – and the carbon that had been sequestered is re-released into the atmosphere, who should be liable? The project developer, the host country, or the holder of the Certified Emission Reductions (CERs)? The COP decision adopts the latter approach, by making CERs generated from sinks projects of limited duration. The decision defines two types of sinks CERs: tCERs (temporary CERs), which are valid for only one commitment period; and lCERs (long-term CERs), which are valid for the project's full crediting period[9].

[9] Sinks projects can have a crediting period of either 20 years, with the possibility of two renewals up to 60 years total, or 30 years with no renewals.

Both types of CERs must be used for the commitment period for which they were issued (i.e., they cannot be banked) and both must be replaced by another credit (an AAU, ERU, or CER) prior to their expiration. Project participants can choose which of the two approaches to use. In practice, the two approaches are similar. On the one hand, tCERs will be reissued if a sinks project is still in existence; on the other hand, lCERs will need to be replaced before the end of the crediting period if monitoring indicates that the sequestration from a sinks project has been reversed.
The COP 9 decision also addresses the issues of additionality, leakage, uncertainties and socio-economic and environmental impacts. The latter was the most controversial, in particular due to efforts of some European states to exclude sinks projects involving genetically-modified organisms (GMOs). Rather than ban projects involving GMOs, the decision requires that they be evaluated in accordance with the host country's national laws, and that information on the species used be identified in the project design document (PDD). The United States, concerned about the precedent of singling out GMOs, indicated it would file a statement with the Secretariat expressing its views on the decision.
The agreement also defines small-scale projects, which are eligible for fast-track approval, as those that result in net anthropogenic sequestration of less than 8 kilotonnes of CO_2 per year, and are developed or implemented by low-income communities or individuals. Modalities for small-scale projects, are to be considered at COP 10.

2.5.2. Sinks in the ETS

Presently, sink improvement projects are not eligible as generator of credits in the ETS, as they are not allowed in the Linking Directive. Nonetheless, there are signals that this position could change as a review in 2006 might open the door to robust sinks schemes. Indeed, according to Alexander de Roo, formerly of the European Parliament and rapporteur of the Linking Directive, carbon credits from sinks could be imported into the EU ETS from 2008 if a major review of the scheme leads to a rule change. Speaking at conference in London, the ex-MEP who steered the linking Directive through the EP earlier this year, said a review in 2006 of the EU ETS as a whole could mean "the possibility that the exclusion of sinks could well change." The review is built into the Directive[10].

2.5.3. Implications for Agriculture and Forestry

GHG emission reductions obtained by domestic agriculture and forestry sectors contribute, together with those of all the other sectors, to reaching one country's emission target. These also include emission reductions originated by JI and CDM projects undertaken directly by agricultural industries in Annex1 and Non-Annex1 countries respectively. However, it is particularly difficult to assess the implications of the Linking Directive for agriculture and forestry. Firstly, because agriculture and forestry are not included in NAPS and thus are not subjected to clear emission limits. Secondly, because the Linking Directive - as it is designed now - does not include one of the most usual typologies of flexibility projects in agriculture, the carbon sink. Therefore, as things are now, the Linking Directive is likely to exert only a marginal impact on agricultural and forestry activities.

[10] See PointCarbon, EU ETS could change position on sinks credits, November 22nd, 2004. Downloaded at http://www.pointcarbon.com/article.php?articleID=5397&categoryID=147&sesstransport=ab4508fe4f19b74d15f8c4e20c2d289a%3A194dc63d5cf018e84152c4c54e359994

GLOSSARY

AAU **A**ssigned **A**mount **U**nit. Units issued out of a country's initial assigned amount.

CDM **C**lean **D**evelopment **M**echanism. Project-based Kyoto Protocol flexibility mechanism involving Annex1 and Non Annex1 countries. Emission reductions entailed by the project in the developing country are credited to the developed country.

CERs **C**ertified **E**mission **R**eduction**s**. Represent units derived from a Clean Development Mechanism project, issued by the CDM registry, and designated as certified emission reduction units (or CERs) by the CDM registry.

ERU **E**mission **R**eduction **U**nit. Unit derived from a Joint Implementation project issued by converting an Assigned Amount Unit or a removal unit.

ETS **E**mission **T**rading **S**cheme. Annex 1 countries are allowed to sell emission reductions if in excess respect to their individual targets or symmetrically to purchase them if in shortage.

EUA **EU**ropean **A**llowances. Other name for emission rights in the European Emission Trading Scheme.

JI **J**oint **I**mplementation. Project-based Kyoto Protocol flexibility mechanisms between Annex1 countries. Allows for the acquisition and transfer of emission reduction units.

lCERs **l**ong-term **C**ertified **E**mission **R**eduction**s**. Valid for the full project crediting period.

NAPS **N**ational **A**llocation **P**lan**S**. Plans according to which national governments allocate emission rights to the different sectors in view of the established mandatory cap-and-trade scheme for CO2 that will start in the European Union in January 2005.

tCERs **t**emporary **C**ertified **E**mission **R**eduction**s**. Valid for just one commitment period.