

PAPER

Title	European responses to climate change: the role of European land users in the sequestration of atmospheric carbon.
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The Kyoto Protocol, adopted in 1997 as the operational part of the Rio Convention on Climate Change (1992), gives the signatory states the instruments they need to meet the targets for bringing down greenhouse gas emissions. Europe has a reduction target of 8% (based on 1990 emissions) which it is achieving by allocating each of the member states a commonly agreed target, as a result of legislation allowing them a certain amount of flexibility.

Directive 2003/87/EC of the European Parliament and the Council establishing a quota exchange system for greenhouse gas emissions (ETS or European Trading System) is based on a proposal from 2001. It is intended for the six areas of industry considered to be particularly responsible for emissions, and allocates them maximum emission rates. A second directive, based on a proposal of July 2003, is currently being drawn up. It establishes a link between the instruments created by the Kyoto Protocol – emission reduction (ER), Joint Implementation (JI) by the developed countries except within the European Union, Clean Development Mechanisms (CDM) in developing countries – and the ETS, using a system of equivalence between Kyoto and ETS credits.

In this draft directive the EU formally excludes the inclusion in the ETS of credits from CDMs and JIs, based on land use intended to fix atmospheric carbon, known as carbon sinks. ‘The proposals excludecarbon sinks – which consist in planting forests to absorb CO₂....because they do not promote technology transfer and are fundamentally temporary and reversible.’¹

At the same time the last Conference of Parties (COP9) at the Rio Convention which was held in Milan from 1 to 12 December 2003, of which ELO is now an associate, has agreed to recognize the importance of carbon sinks and their specific contribution to the fight against climate change. The agreement reached during the Conference recognizes ‘sink’ projects in the forestry sector as CDMs, by adopting specific operational methods and procedures.

Although this proposal only involves CDMs, rural landowners and businessmen in Europe are right to express surprise that the United Nations have endorsed carbon sinks as an instrument recognized as politically valid for the creation of carbon credits, and yet the EU has refused the same mechanism in its plan to link CDMs and the ETS. This is a something of a paradox at a time where farm reforms are finally leading to a recognition of the fundamental role played in the environment by the managers of the land.

The legal framework surrounding the production and exchange of carbon credits

¹ “Linking credits to the EU’s emission exchange system”, European Commission, Climate Change Unit in “Solutions to climate change 2003”, Entico Corporation Ltd.

When they adopted the United Nations Framework Convention in Rio (1992), the countries of this planet expressed their common will to face the challenge of climate change caused by human activity. Practical measures were drawn up in the protocols including the Kyoto Protocol of 1997. The developed countries undertook to reduce, over the period 2008-2012, their greenhouse gas emissions by 5% compared to the year 1990. A national target has been set for each country and the European Union's is 8%. This is subsequently divided up within the Union by common accord between the member states, depending on how much they emit.

Carbon dioxide (CO₂) accounts for the largest volume of gas by far. It makes up three quarters of total emissions. The Kyoto Protocol proposes two types of complementary action: verifiable emission reduction (accounting for the largest volume) and certified storage of carbon in natural sinks like forests.

An exchange mechanism will allow industrialized countries to buy and sell emission rights to and from each other, except within the EU. An emitter who has gone even further than meeting its commitments can sell the supplementary emission rights which it has generated to other emitters.

Example: Emitter A's maximum emission target is 100 tons of carbon equivalent. If A only emits the equivalent of 90 tons it can sell a credit of 10 tons to emitter B. If B's target is 50 tons, it can emit 60 tons, the 10 extra tons being compensated for by the purchase of a 10 ton credit.

The market will guide the production of emission credits towards the regions where they are most efficiently obtained, subject to the limits imposed by the international texts. These are the so-called 'no regret' strategies: Emission Reductions, Joint Implementation and the Clean Development Mechanisms.

Since 1990 every state has been doing an annual audit of gas emission/sequestration in order to work out the extra effort needed to attain the Kyoto Protocol (KP) targets. However, the audit methodology has not yet been completely defined. The assessment takes into account industrial and domestic emissions but also the reduction of the volume of atmospheric CO₂ by carbon sequestration, in particular in forest wood by afforestation, deforestation and reforestation after 1990 (art. 3.3 KP). Equally, there is an option to take the positive impact of land and forest management into account (art 3.4 KP), in which case the increase in sequestration due to a change in management techniques (slower rotation of felling, direct seeding, use of bioenergies etc) must be demonstrated in a transparent and verifiable manner.

Land management and use as a mechanism for creating carbon credits.

Rural landowners and businessmen are directly concerned. The 2003 directive fixed emission ceilings for the big industrial sectors (cement, energy, petrochemicals, metals, plastics). This text covers 50% of the EU's emissions, but excluding transport and domestic emissions. In order to fix the rules which will allow industry to reduce its emissions and exchange emission credits (= carbon credits) using the ETS mechanism, a second directive is currently being drawn up.

Although mentioned in the Kyoto Protocol, carbon credits from afforestation and reforestation produced with CDMs/JIs are explicitly excluded from the ETS. It almost goes without saying that extra sequestration of atmospheric carbon created by changes in practices for managing land and crops is not included 5 (the option under 3.4 KP).

Basically industry will not be able to buy carbon credits from rural businessmen investing in CDM projects which have been produced as a result of investing in afforestation, reforestation. There is no mention either of the creation of a domestic market in Europe for credits from the extension of forests or the management of forests and land using special methods (slower rotation of felling, direct seeding, use of bioenergies etc).

Encouraged by the agreement reached in COP9 which recognizes carbon sinks as part and parcel of CDM projects, the ELO wishes to underline the role of land managers in the environment generally and in carbon sequestration in particular. Although there are no such plans at the moment, any effort to optimize carbon sequestration in the soil using advanced management methods should also be taken into account in the emission/sequestration balance carried out by each country in accordance with articles 3.3 and 3.4 KP.

The multifunctionality of the countryside and the lack of rewards for 3rd generation products

The economic environment is seeing increasing economic liberalization and the prospects of a more global forestry industry than in the past. This situation changes the role and responsibilities of the forestry sector, and of the countryside as a whole, which must now make sure it sticks to the rules and promotes sustainable development of the land and forests.

Timber, wood pulp and agglomerates have become goods traded on a global scale. The market fixes prices according to supply and demand. Prices are constantly being pushed downwards by the producers with the least environmental and social constraints. The European forest owners, who have to respect the principles of sustainable management and multifunctionality, are being penalized because the protection of the soil, managing floods and regulating the climate by atmospheric carbon sequestration are all economically irrelevant. The environmental value of their products is not recognized by the market.

If the European countryside is to remain viable, these so-called 3rd generation farm and forestry products (the 3rd stage after subsistence and industrial agriculture) should be specifically funded. Carbon sequestration which contributes so much to fighting climate change – a major challenge of the 21st century – should be rewarded in accordance with its significant contribution to emission reduction targets. Rural businessmen in the developing world and in industrialized countries could then regain their international competitiveness which is currently being eroded.

At the same time original, economically viable solutions should be adopted to help landowners whose plots cannot bear the brunt of Europe's social and environmental constraints on their own. It should not be forgotten that 60% of the EU's forests are private, and that family property – often fragmented – is a common feature. Certain forests are underused and aging, and are no longer able to efficiently fix atmospheric carbon.

Appropriate management techniques must be developed as well as cooperation projects between landowners, in order to boost the exchange of experience, equipment and know-how, and above all in order to share with others the concept of sustainable management of the land. In this respect too potential extra income earned by the recognition of carbon credits created by

appropriate management of forests would have a positive impact on the environment, the economy and society.

Farming has often been accused of being an emitter. But over the past ten years it has considerably reduced its greenhouse gas emissions due to a more restrictive use of nitrogen fertilizers, a reduction in the number of livestock and an increase in organic matter content of ploughed soil.

If carbon sequestration in farms and on rural properties were included in the national emission reports, farmers could include the calculation of greenhouse gas emission/sequestration in the way they are subsequently managed. Such a step is essential in the light of the Kyoto Protocol targets. It would cover the reduction of energy consumption, use of fertilizers, set-aside, livestock density, the ratio between arable and pastureland, wooded areas, management structures and internal consumption etc. The exercise would allow the environmentally sustainable character of the farm to be measured and the result would be reflected by issuing certificates which would be renewable every 5 years. They would allow the farmer to put a stock of carbon fixed in his wood onto the market. Payment per ton of fixed carbon should be sufficiently high to act as a major incentive. Carbon fixed in soil using specific land management techniques, more difficult to measure from one year to the next, could receive an annual flat-rate payment. These systems would have the advantage of rewarding products rather than subsidizing the producers, which is an accusation often made by the EU's trading partners in the World Trade Organization. But so far there is no national or community initiative which includes the rural private sector in the emission reduction targets laid down by the Kyoto Protocol.

What direction should we move in? Forest and soil management can create certified carbon sinks and therefore contribute to the fight against climate change (Milan Conference, December 2003). At the same time the EU is still refusing to recognize the merits of this system and has excluded it from its future directive on exchanging carbon credits.

The ELO wishes to underline the multiple positive consequences of paying for carbon sinks. It would give a new economic boost to rural businessmen and would therefore bring new life and jobs to the countryside. Moreover, the management techniques are not just necessary but promote sustainable maintenance of the land and enhance the positive environmental impact of rural landowners and businessmen.

It would be a pity, indeed worrying if, in spite of such a cluster of positive points, the EU were to continue to ignore them.

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