Local and Global Benefits of Including LULUCF Credits in the EU ETS

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1. Objective

Directive 2003/87/EC established a European-wide emissions reduction and trading scheme, the EU ETS. In 2004 it was amended by Directive 2004/101/EC (the so called "Linking Directive") to allow for the use of Certified Emissions Reductions (CERs) and Emission Reduction Units (ERUs) for compliance in the EU ETS. However, the amendment did not link CERs and ERUs generated by land use, land-use change, and forestry (LULUCF) activities into the EU ETS. This briefing note discusses the benefits and risks of including LULUCF activities in the EU ETS and highlights some political problems that are likely to arise if LULUCF credits continue to be excluded.

2. Summary

The objectives of the Linking Directive include increasing the diversity of low-cost compliance options within the EU ETS, which will improve the liquidity of the EU market, stimulate demand for CERs that will help CDM host countries meet their sustainable development goals, and ensure consistency between the UNFCCC, Kyoto Protocol, and the EU ETS.[7] Including LULUCF credits in the EU ETS will further all of these objectives and provide key political benefits to the EU. Importantly, it will counter growing criticism that excluding LULUCF credits is an unfair trade restriction that works against the poorest and most vulnerable people in developing countries.

3. Economic Benefits

The rising oil and gas price is the single most important factor for a sharp increase in EU allowances prices, which jumped from EUR 6 to a maximum of EUR 30 during the course of 2005. High fuel and carbon prices have dealt a double blow to European industry, increasing operating costs and jeopardizing their global competitiveness. CERs and ERUs are attractive compliance tools in the EU ETS as they reduce the overall cost of compliance. Using LULUCF credits will increase the volume of eligible credits and introduce a new type of compliance credit into the market. This will reduce compliance costs, improve market liquidity, and promote long-term emission reduction planning and market efficiency.

LULUCF credits will improve market liquidity by increasing the available volume of tradable credits. This is key to reducing uncertainty and volatility in the market and preventing an upward spiral of compliance costs, especially if EU Member States reduce the allowance allocation in the second phase.

It is important to stress that the main objective of the EU ETS is to reduce fossil-fuel-related emissions in the EU, and the ultimate goal of the EU ETS and the international climate convention is to create low carbon economies. CERs generated by afforestation and reforestation (A/R) activities are

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[7] Linking Directive preamble, paragraphs 3 & 4

expected to be cheaper than other CERs because they are considered to be temporary and will need to be replaced.[8] Critics of the inclusion of LULUCF credits claim that a high number of cheaper LULUF credits would flood the market and undermine the EU's objective of reducing domestic emissions. This concern is addressed by the caps imposed by the Kyoto Protocol[9] as well as by installation-level caps to be implemented by the EU Member States from the second allocation period onwards. Furthermore, rather than undermining the goal of reducing fossil-fuel emissions in Europe, the use of CERs and ERUs from LULUCF projects will foster it by promoting more efficient long-term emission reduction planning.

Including lower cost temporary LULUCF credits will diversify the *type* of compliance units available in ways that has important implications for industry. The ability to temporarily offset *some* obligations by using the cheaper tCERs from A/R projects is highly desirable in long-term emission reduction planning. This is because the cost of buying permanent credits in the short term may be significantly higher than the marginal cost of abatement over the longer term. The less-expensive, temporary nature of tCERs allows companies to assess the best time to surrender "permanent" abatement credits and when to temporarily offset *some* obligations using cheaper temporary credits. As the temporary credits will need to be maintained and eventually replaced with permanent credits, the integrity of the EU ETS is never compromised.

This flexibility allows companies to synchronize their investment cycles with their decisions concerning emission reducing alternatives. This is particularly important in the energy sector, where power plants operate for several decades. Temporary solutions, like the purchase of tCERs, give companies the flexibility to decide the optimal schedule to implement their long-term climate friendly investments. This is consistent with the underlying philosophy of the cap-and-trade system, which recognizes that the market is in the best position to determine where, how, and when it is most efficient and cost effective to meet long-term reduction obligations. Allowing temporary credits in the EU ETS will therefore help mitigate one of the main problems of the scheme's current set-up: the fact that the short allocation periods do not give the necessary security to properly evaluate and implement long-term investments.

4. Sustainable Environmental and Social Benefits

The CDM and Linking Directive have clear objectives to promote sustainable development. However, as can be seen from the current CDM pipeline, there is a strong preference for projects that yield large CER volumes, with few, if any, sustainable development benefits. The overall CDM portfolio falls short of providing wide spread assistance to developing countries trying to achieve sustainable development.[10] Excluding LULUCF credits from the EU ETS severely limits the demand for these credits, which greatly hinders one of the most effective categories of CDM projects for achieving sustainable development.

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[8] This is because the credits are either cancelled and re-verified and re-issued every 5 years (in the case of temporary CERs "tCERs"), or re-verified every 5 years (in the case of long term CERs "lCERs"). Both types also need to be replaced with "permanent" credits at the end of the crediting period. These accounting and replacement requirements result in the so called "permanence risk" and "replacement risk" of these units, which in turn lead to a discounted price compared to abatement CERs and ERUs.

[9] The Kyoto Protocol limits the use of LULUCF CDM credits to 1% of a country's 1990 baseline emissions. This means that no more than ~5-6% of total Annex1 emission reductions required under the Protocol could come from LULUCF activities – far less than the 20-25% of global GHG emissions that the land use sector currently accounts for.

[10] See: C. Figueres: Sectoral CDM: *Opening the CDM to the yet Unrealized Goal of Sustainable Development*, International Journal of Sustainable Development Law & Policy, forthcoming publication (2006).

Land use change is a significant contributor to climate change, causing more than 20 percent of global greenhouse gas (GHG) emissions. It is responsible for one-third of the anthropogenic GHG build-up in the atmosphere. Land use change, dominated by deforestation in the tropics, is also the leading cause of species extinctions worldwide and a significant source of water and air pollution and soil erosion. Reducing atmospheric GHG concentrations is a significant global problem that must be tackled in coming years, and LULUCF projects are a viable way to address this problem and meet other pressing social and environmental challenges.

The LULUCF sector is often claimed to undermine the environment by promoting large-scale plantations, reducing biodiversity, or relying on genetically-modified or non-native species that replace rare native species. These kinds of projects should not benefit from carbon finance, and mechanisms exist to exclude them from the EU ETS. In most cases such projects would not pass the CDM additionality criteria, as they tend to be profitable in their own right and therefore ineligible for crediting. If such a project does pass the additionality test, it could (and likely will) be excluded during the approval process by host countries (for not contributing to their sustainable development) or by Annex I countries (with their own qualitative limits).[11] The majority of CDM LULUCF projects being undertaken are well-designed forestry projects that benefit people, biodiversity and the climate.

From a biodiversity perspective, carbon finance is one of the few funding sources of sufficient scale which is able to support the large-scale restoration and conservation of degraded habitat that is critical to the survival of threatened species. Consequently, major environmental groups (including WWF, IUCN, Conservation International, and the Nature Conservancy) are looking to tap the carbon market to help achieve their conservation goals.

From a development perspective, LULUCF projects represent one of the only means that many of the world's poorest people (including most of Africa) will be able to meaningfully participate in, and benefit from, the global carbon market. For the first time, they have the promise of being able to sustainably capture an ecosystem-service value associated with their land, instead of being forced to liquidate these natural resources just to survive. With forestry excluded from the EU ETS, these land-dependent communities are being denied access to a source of capital that could help lift them out of poverty and into sustainable livelihoods.[12] The many benefits that well-designed LULUCF projects provide to people and local communities help ensure their long-term sustainability. They also offer significant opportunities for combining mitigation and adaptation in ways that make poor communities more resilient in the face of climate change.

Well-designed forestry projects have unique potential to deliver sustainable development benefits, including improving biodiversity, abating desertification, and protecting against fragmentation and loss of existing sinks and ecosystems. By planting along contours and creating windbreaks, these projects conserve and improve soil organic matter, soil fertility, soil structure, ease of cultivation, water holding capacity, and resistance to erosion. LULUCF projects that focus on agroforestry, particularly at the community level, have the potential to provide significant local benefits where they are most needed in the form of providing fruit, vegetables, spices and medicine for local communities, animal feed, natural insecticides, firewood, craftwood (and other non-timber forestry products), building materials, and enhanced income security through new sources of income. Restoring a forest often results in a cooler and moister micro-climate. These microclimates provide local benefits (e.g.,

[11] Qualitative criteria such as the Climate, Community & Biodiversity Standards can help to guide project approval.

[12] It should be noted that while the energy sector of most countries is eligible to participate in the CDM, least developed countries cannot afford fossil fuels to be a large part of their energy sector - especially at current oil prices. Projects to improve the energy use in these countries (increasing cooking stove efficiencies, or biogas to replace charcoal) are mostly not eligible given the current CDM. If these countries do not have wind or hydroelectric resources, LULUCF may be the main option that is left.

improved yields due to longer rainy seasons and more pollinators). Collectively, restoring large areas of native forests may also stabilize climate and weather in ways that fossil fuels and carbon can not.[13] Despite all these benefits, many of these projects will not go forward without the financial incentive and knowledge and technology transfer – an objective of the UNFCCC, Kyoto Protocol, and Linking Directive[14] – provided by the CDM.

The aforementioned environmental and development benefits are not hypothetical; they are often intrinsic in the design of successful LULUCF projects. A survey of the CDM LULUCF project pipeline shows that a multitude of these sustainable development benefits are an integral part of many of the projects currently in preparation.

5. Political Benefits and Considerations

In addition to the clear political benefits associated with reducing compliance costs and making the EU ETS more liquid and efficient, and the benefits associated with supporting environmentally and socially responsible projects, there are a number of additional political benefits directly linked to the inclusion of LULUCF credits in the EU ETS.

Integrating LULUCF credits into the EU ETS will create demand for LULUCF credits and help advance international climate-change negotiations in a number of key areas. First, Europe needs experience with LULUCF projects if informed decisions are to be made about the post-Kyoto solutions and emerging UNFCCC policy framework. This framework will have to deal with the problem of emissions from land use in a comprehensive manner, covering in particular avoided deforestation, but also land-use sectors that are currently excluded from the CDM, such as agricultural management or the avoidance of forest degradation.

Second, including forestry both in the CDM and the climate regime as a whole is key to secure the support of developing countries for a post-Kyoto regime. The number of countries benefiting from the CDM so far is limited to middle-income and big developing countries. The promise of the mechanism has yet to be realized for the majority of the developing world (Africa hosts just over 2% of all CDM projects). It is essential for the long-term viability of climate change policy to create an open and inclusive carbon market. This market must help the least-developed countries participate fully and fairly, and the greatest single opportunity to achieve this would be to include CDM LULUCF projects in the EU ETS.

Third, integrating LULUCF into the EU ETS will also help engage the U.S. and Australia in future negotiations, as both have been strong advocates for the inclusion of land use in international climate policy.

Fourth, if the large predicted potential for biomass energy to mitigate climate change is to be realized,[15] biomass reserves need to be developed sooner rather than later as they take time to develop a sustainable volume. In this respect, the reforestation projects of today can be regarded as the sources of sustainable biomass fuels of tomorrow.

Related to these broader strategic benefits, the likelihood and consequences of other countries' developing their own domestic trading schemes need to be considered. If other countries' emission trading schemes include LULUCF credits – which Canada has indicated will be the case if it develops a

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[13] Marland, G. et al. 2003. The climatic impacts of land surface change and carbon management, and the implications for climate-change mitigation policy. *Climate Policy (3) 149-157.*

[14] UNFCCC, Article 4 paragraph 5 ; Kyoto Protocol, Article 10 paragraph c ; Linking Directive preamble, paragraph 3

[15] See, for example, the IPCC Second and Third Assessment reports

domestic trading scheme – then it may prove difficult for the EU ETS to link into other trading schemes and enjoy the benefits of creating a larger market of fungible compliance units. This is because linking into other domestic trading regimes that recognize LULUCF credits opens up the possibility of "white washing" LULUCF credits through other jurisdictions – i.e., companies in foreign trading systems importing LULUCF credits for compliance purposes and then exporting their excess allocations into Europe at higher prices.

Continuing to exclude LULUCF credits is also likely to have negative political consequences. Free trade in agriculture products is already a politically charged and contentious topic. Many developing countries charge that "free trade" actively discriminates against the agriculture products of the poorest people in the world. For many of these people, LULUCF projects represent the only way that they can participate in the latest market – the carbon market. If Europe continues to exclude LULUCF credits from the EU ETS, opposition against European market restrictions are likely to become more widespread and vocal, potentially causing political disputes – particularly with many African countries. Recognizing LULUCF credits will promote free trade and allow Africa and other developing countries to capture an important market opportunity while helping Europe lower compliance costs and increase environmental and social co-benefits.

The political risk of LULUCF credits diverting attention from the objective of creating a low carbon economy has been mitigated by the standards adopted for forestry projects by the 9th Conference of the Parties to the UNFCCC. The creation of temporary credits makes it clear that LULUCF projects do not create a permanent solution to the climate problem. While forests need to be permanently protected and degraded land reforested, these activities need to run in parallel with other efforts to bring economies onto more sustainable pathways. The current rules of the CDM with respect to the temporary nature of credits, leakage and additionality protect the credibility of the system and allow for integration of LULCUF projects in the carbon market.

6. Conclusions

Ultimately, allowing LULUC credits into the ETS is a matter of weighing benefits against risks. The economic, environmental, social and political benefits are clear: reduced compliance costs, improved market liquidity, reduced market uncertainty and volatility, and enhanced market efficiency; all of which is accompanied by a host of unique environmental and social benefits. There are also perceived risks of bringing LULUCF into the EU ETS, most notably that forests may be destroyed, the market will be swamped by LULUCF credits, that large plantations of genetically engineered or invasive species will prevail, and that LULUCF projects distract from making necessary fossil fuel reductions. All of these risks have been addressed during the past few years of Kyoto Protocol rule-making and do not pose a significant risk.

Given the clear need to engage developing countries in a post-2012 world, Europe should open its markets to quality LULUCF credits from some of the world's poorest communities. This would be a loud and clear signal that Europe recognizes the value of every country's contribution and willingness to allow fair play, without prejudice. The benefits to such a decision will have far reaching ramifications, particularly as developing countries enter negotiations on a post-Kyoto framework.