

Submission to Environmental Audit Committee Inquiry on the role of carbon markets in preventing dangerous climate change

Contributed by Carbon Trade Watch, Transnational Institute
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Summary

The EU Emissions Trading Scheme (EU ETS) has so far failed to reduce emissions, while the use of offset credits serves to conceal this lack of progress

Emissions trading presumes that a price signal will be established by the market and that this will shift investments towards low-carbon technologies. This has failed to happen in phase I and II of the EU ETS, which have been best by volatility and price collapses

These failings are not caused by teething problems, but are symptomatic of the extreme difficulties of assessing the value of "carbon," which is a commodity that bears little relation to any single real world object. More generally, the scheme over-estimates the capacity of price to achieving structural change in energy production and industrial practice

The need to render a broad range of different industrial processes and sinks commensurate in order to create a functioning carbon market raises serious concerns about its environmental integrity

The introduction of "offset" credits into cap-and-trade markets further weakens their environmental integrity, and raises significant social justice concerns

Proposals to expand emissions trading globally assume that greater liquidity will stabilise carbon prices. However, the current problems with carbon markets neither stem from nor will be solved by a lack of liquidity.

Existing measures to "link" the EU ETS cap-and-trade and CDM offset markets result in a "hole" in the EU's cap on emissions. New sectoral and "no lose" schemes could potentially widen this hole

Efforts to globalise carbon markets should therefore be abandoned, and emissions trading should be replaced at the earliest opportunity

About Carbon Trade Watch

Carbon Trade Watch has monitored the development of emissions trading and carbon offset markets since 2002. We welcome the current Environmental Audit Committee inquiry into the role of carbon markets in preventing dangerous climate change.

Carbon Trade Watch is a project of the Transnational Institute (TNI), an international research and advocacy organisation registered as a non-profit foundation in The Netherlands. Carbon Trade Watch researchers are based in the UK, The Netherlands and Spain.

Carbon Trade Watch also plays an active role in a number of networks addressing international climate policy and carbon financing. It is a co-founder of the international Durban Group for Climate Justice.

The EU Emissions Trading Scheme (EU ETS) and actual emissions

Official data on actual emissions in the EU shows that the ETS is being used to conceal significant shortfalls in domestic emission reduction efforts. In particular, data from the European Environment Agency shows that the EU-15 is on track to meet only 3 per cent of its 8 per cent reduction target (equivalent to 38 per cent of the cuts needed) domestically – with the remainder “bought” through offset credits.

This figure should be set against the lack of ambition in the Kyoto target (a 5.2 per cent decrease in Annex I emissions from 1990 levels); its failure to account for international aviation and shipping at all (compounded by the inaction of the IMO and ICAO, the relevant UN bodies); and the continuing “outsourcing” of emissions to non-Annex I countries (also referred to as “emissions embodied in trade”).

The reliance on offsets to fill the gap in domestic actions is taking place irrespective of clear evidence that non-Annex 1 countries do not have extra “reduction” capacity that can be counted as equivalent to domestic action in

the EU. In fact, the EU itself estimates that developing country emissions will continue to rise by 166 per cent from 1990 levels by 2020. It is unlikely (and unjust, given current per capita emissions and the burden of historical responsibility for carbon emissions) that reductions will be achieved in these countries at a level adequate to meet the challenge of dangerous climate change without far greater domestic commitments by the UK and other Annex I countries. Offsetting obscures and delays such action.

The counting of afforestation and deforestation towards domestic emissions reductions targets further obscures the lack of ambition. Although these are currently a relatively insignificant factor in emissions trading, the potential use of forest-based carbon credits (generated by REDD schemes) would introduce a significant new loophole that would undermine attempts to decarbonise the economy.

It should also be noted that the UK and EU 2 degree target, based on a projected stabilisation at 450 ppm/CO₂ equivalent, is inconsistent with much of the scientific evidence on carbon emissions that has emerged since the IPCC 4th Assessment Report.

The record of the EU ETS and prospects for the future

The first phase of the EU ETS was widely acknowledged to be “over-allocated” - in other words, more credits were handed out than were needed to meet emissions reduction commitments. In environmental terms, therefore, it failed to achieve what it intended. The EU sought to justify this initial failure by branding the first phase as a period of “learning by doing,” the suggestion being that a similar collapse would not affect subsequent phases of the scheme. Prices for EUAs in the second phase began more strongly, peaking at close to €31 in 2008. They have subsequently crashed again, however, and now stand at around €10.

Emissions trading is premised on there being a “price signal” to encourage a change towards more environmentally sustainable industrial practices. The collapse of EUA prices in both the first and second phases of the scheme indicates that this is not working. Moreover, the explanation of these collapses – as well as for the high degree of volatility within the carbon market – suggests that the problems are fundamental to the design of carbon markets themselves.

The main failings in the first phase related to over-allocation, a problem compounded by the inability to “bank” credits. Over-allocation is a persistent problem with cap-and-trade schemes. In the initial phases, against a backdrop of poor data on actual emissions, companies were able to talk up their existing level of emissions in order to minimise their “reduction” commitments under the scheme. The influence of heavy lobbying helped ensure that the first phase ended with more EUAs than existing emissions levels.

The availability of better emissions data may resolve aspects of this problem, but the broader issue has not gone away (and it is worth noting that monitoring and verifying emissions does not require that there be a carbon market). In particular, the potential use of CERs (credits from CDM offset schemes) in phase II, via the Linking Directive, is far greater – these were not a factor in phase I due to low EUA prices and delays in establishing registries to exchange EURs and CERs.

The banking of credits from the 2008-2012 period for future use could also affect the environmental integrity of emissions trading. Through a combination of “hot air” credits (emissions reductions from Ukraine and Russia due to industrial decline and restructuring since the 1990 baseline established by the Kyoto Protocol) and the US non-ratification of Kyoto, there is likely to be a significant surplus of Assigned Amount Units (AAUs, Kyoto reduction units) by 2012. The banking of such credits would represent a serious loophole in any post-2012 scheme – allowing historical reductions as a result of economic restructuring in the former Soviet bloc to be counted as equivalent to future domestic actions by the UK and other Annex I countries.

Impacts of economic recession on the workings of the EU ETS

The recent price collapse (in the ETS phase II) was triggered by the current recession. A number of companies and sectors have found that their emissions are reducing as a result of lower output, so are downgrading their assumptions about how many EUAs they need. In addition, the sale of EUAs (which were predominantly allocated for free) has been used to achieve a short-term capital injection.

Short-term emissions reductions as a result of the recession are not the same as pro-active changes in how power is generated or how goods are produced. For the ETS to work, it is presumed that a price will be set that is sufficient to encourage changes in industrial practice. The current price is too low to effect such a change.

Potential responses to this problem might include setting a price floor beyond which governments would intervene to purchase credits in the hope of driving up the price – or similar measures to revive the market. However, these would be a disproportionately expensive use of finance to tackle climate change, and would prove far less effective than equivalent investments to directly fund the development of clean technologies and renewable energy. Moreover, such measures would do nothing to tackle the existing problems of environmental integrity that beset the carbon market.

Extent to which the carbon price will be sufficient to drive low carbon investment, in particular decarbonisation of energy

Interventions premised upon maintaining a carbon price fail to address a more fundamental problem: the inadequacy of price as a means to achieve the structural changes needed to tackle climate change.

Aside from the current price collapse and continued volatility – which have undermined the “price signal” - the ambition for what carbon markets can achieve as a policy instrument is not commensurate with the scale of the climate change problem. Based on assumptions of carbon prices far higher than their present levels, some advocates for the EU ETS argue that it should lead to a switch in energy production from coal to gas. However, this should be set in context: a significant shift of this nature took place in the UK prior to the introduction of carbon markets; other factors (including energy security concerns and coal/gas price differentials) mitigate against such a switch; and the rebranding of coal as “clean” – including the potential use of ETS auction revenues to develop “CCS ready” plants – could contribute to an increased reliance on coal. Above all, it should be noted that a fuel switch from coal to gas is not a “decarbonisation of the economy,” but merely the continuation by other means of a system based on fossil fuels.

Even if the EU ETS resulted in greater use of gas to power the energy sector, which is not at all clear, the kind of emissions reductions achieved through this in the short term have to be weighed against the longer-term implications for energy policy. The carbon market facilitates the cheapest cuts, but these can also “lock in” technologies that are unsustainable in the longer term. The main lesson here is that such changes are not an adequate substitute for a domestic policy agenda that incentivises and regulates for a swift transition to renewable energy.

The presumption that the market will become more stable as it matures should also be treated as just that – a presumption. The extension of emissions trading to new gases, sectors and installations in phase III of the ETS, as well as the likely shift from brokered exchanges to more complex financial instruments to repackage and sell on carbon credits, can also be seen as offering greater potential for gaming and arbitrage.

This is not simply a problem of price, but of the environmental integrity of the scheme. In order to create “carbon” as a tradeable commodity, a series of different greenhouse gases with variable equivalences, and subject to complex and imprecise measurements (often with large error bands) are treated as though they were the same. Furthermore, to make the market function, a broad range of very different activities are treated as equivalent – although it makes little sense, whether judged scientifically or in terms of their social impacts, to treat the burning of coal or oil as equivalent to the building of more hydro-electric dams, the capture of the methane in coal mines, or the planting of trees.

The result of these abstractions is that vital knowledge about how to tackle the climate crisis in a just manner gets lost. Emissions trading encourages a framing of climate change policy in predominantly financial terms, and encourages a selection of emissions reduction responses on grounds of monetary value rather than environmental effectiveness and social justice.

Effects of the expansion of the EU ETS to encompass aviation

The treatment of aviation within the EU ETS clearly demonstrates the problem of how the need for a single tradeable commodity (carbon) obscures differential environmental impacts. Emissions from aviation arise from CO₂, nitrous oxide, water vapour, sulphate and soot particles, and their impact is compounded by the formation of contrails. Some studies show these combined impacts to be far greater than the impact of CO₂ alone, yet the proposed introduction of aviation into the ETS tackles only CO₂ emissions. In effect, the carbon market provides a means to "offset" aviation with a series of cheaper reductions in CO₂ emissions in other sectors – but the environmental impacts are vastly different. (For reasons explained above, this could not simply be resolved by factoring in other gases as part of the ETS calculation, since this would create further problems in calculating equivalences, leading to a range of other perverse effects).

The robustness and effectiveness of "offset" schemes (i.e. those without a cap), such as the Clean Development Mechanism (CDM), and the issues around linking them to cap and trade schemes

The ability to use CDM and offset credits within the ETS undermines the environmental integrity of the scheme. While cap and trade in theory limits the availability of pollution permits, offsets projects are a licence to print new ones – creating a "hole" in the cap.

The CDM is zero sum at best, moving "emissions reductions" from countries with binding commitments under the Kyoto Protocol to those without, rather than reducing emissions as such. However, various studies have shown a significant proportion of CDM projects to be "non-additional" - in other words, they do not involve measures to reduce emissions that would not have already happened, despite their being treated as directly equivalent to actual reductions. A recent survey by the NGO International Rivers found that 76 per cent of projects were already completed by the time they were approved as eligible to sell credits. The CDM also has significant failings with respect to social justice, as documented at www.carbontradewatch.org.

At present, the upper limit for the use of JI/CDM credits is officially stated at 50 per cent. However, the Effort Sharing Decision (which relates to allocations within the EU), as well as plans for sectoral carbon markets and OECD-linked carbon markets, significantly complicate this picture. Our initial estimates suggest that the real figure for potential use of CDM credits in the EU ETS phase 3 could be above 70 per cent of the total reduction target.

• Development of a global carbon market

The EU Commission, in its January 2009 Copenhagen Communication, advocates the creation of an OECD-wide carbon market by the year 2015. The stated objective is the eventual creation of a global carbon market, on the assumption that greater liquidity would stabilise prices and reduce the potential for "carbon leakage". The current problems with emissions trading do not stem from a lack of liquidity, however, so there is little reason (beyond blind faith) to assume that they can be solved by simply expanding the market.

On the contrary, the further extension of carbon markets carries with it further risks. One of the underlying problems with emissions trading is that it invents a single commodity ('carbon') out of a widely differing set of power generation techniques, industrial processes, as well as rendering these equivalent with 'sink' projects (such as tree planting). This obscures the very different social impacts of such projects, and the different trajectories that they set out in terms of the transition to a low-carbon economy. The net result is that emissions trading de-localises and ultimately obscures the process of measuring overall progress towards emissions reductions. This problem, and associated problems of gaming the system, are likely to be exacerbated by the expansion towards a global carbon market, since it would require a still greater diversity of distinct activities to be falsely rendered equivalent.

The proposal from the EU Commission to develop sectoral carbon markets, including those containing 'no lose' targets, further complicates the picture. Such markets are presented by the EU as an intermediate step towards the development of cap and trade schemes. In fact, they offer an opportunity to rapidly expand the scope of carbon trading, brushing aside the 'additionality' requirement of the CDM in favour of a potentially even weaker 'benchmarking' approach. The EU states that, under such a scheme, 'credits could be awarded for beating reinforced ambition levels, while no penalties would be imposed for missing these ambition levels.' Aside from the question of whether these are envisaged as offset credits, such schemes introduce a significant perverse incentive for governments and industrial sectors covered by such schemes to talk down their 'ambition' in order to then heighten the level of credits awarded for meeting these unambitious ambitions at a later date.

Whether, and under what circumstances, emissions trading ought to be supplemented or replaced by tax or regulation

Carbon Trade Watch research on carbon markets since 2002 indicates that they are not reducing emissions, and that there are fundamental structural problems that render them highly unlikely to work in future. In light of this, we conclude that emissions trading should be replaced at the earliest opportunity.

Depending on how it is designed, carbon taxation may be preferable to carbon trading, but there should be a similar caution attached to any over-ambition for the effectiveness of such measures. There is no simple, single 'solution' to achieving the structural changes required to tackling the climate change problem. However, a broad range of effective approaches do exist – including various forms of regulation, financial and non-financial incentives, and education initiatives, as well as broader paradigmatic changes in how 'development' and economic success are conceived.