

Response to Defra consultation on voluntary carbon offsets

Dr Cameron Hepburn

*St Hugh's College, St Margaret's Road, Oxford, OX2 6LE and
Environmental Change Institute, Oxford University UK*

13 April 2007

Executive Summary

Defra's proposed voluntary 'Code of Best Practice' for carbon offsets includes many sensible elements. This response focuses only the decision to restrict the application of the code to EUAs, CERs, and ERUs, and to exclude VERs (see Question 5 of the consultation). There are several reasons why this is unwise, namely:

- It stifles NGOs efforts to ensure that voluntary carbon offsets make a serious contribution to **sustainable development**, which the CDM currently fails to do;
- It promotes **institutional monopoly** (putting all eggs in the UNFCCC basket) at a time when a sensible approach to global climate policy suggests that institutional diversity is valuable;
- The appellation "code of *best practice*" suggests a level of **robustness** in the EU ETS and CDM markets that cannot yet be claimed;
- As is well-known, EUA prices have been highly volatile, and while it is possible that Phase II prices will be steady and high, it is also possible that **EUA prices could crash to extremely low levels**, as in Phase I. An EUA price crash would leave the "code of best practice" in a rather embarrassing position.

Rather than applying the Defra "quality" mark to EUAs, CERs, and ERUs, Defra should play an important and helpful role in ensuring consumer confidence in this emerging market by **supporting NGOs** currently developing the Voluntary Carbon Standard (VCS) and the Voluntary Gold Standard (VGS) to further improve their rigour. Defra could also provide valuable guidance on the provision and operation of an appropriate registry. Then, Defra should apply the quality mark to CERs, ERUs and VCS- or VGS-certified VERs (but not EUAs). This would allow the voluntary carbon market to complement the regulated market, compensating for its deficiencies, and hedging policy risks through institutional diversity. In contrast, anticipating and brushing aside NGO efforts, in favour of an approach exposed to broader market risks, appears an unwise way of ensuring consumer confidence and improving climate policy.

1. The voluntary carbon market

The climate challenge will not be solved without substantial government intervention. Different countries will adopt different policy instruments, including carbon taxes, emissions trading, regulation, and information provision. These policies will form the backbone of our attempt to reduce emissions. Where altruism and voluntary markets can be harnessed, they should be guided towards **complementing** regulatory interventions, rather than acting as a **substitute** for them.

The voluntary carbon market is closer to consumers than the regulated markets, and for this reason it has been the subject of more probing criticism by journalists (e.g. Monbiot, 19 Oct 2006; Economist, 3 August 2006). But equally, because of the proximity to the consumer, the voluntary market has evolved in a fashion that promotes consumer choice. The development of differentiated products is to be welcomed for several reasons. For instance, the voluntary market provides more support for projects contributing to sustainable development.

But there are also downsides to more choice (Irons and Hepburn, 2007), one of which is consumer confusion. The need for coherent standards in the voluntary market is clear, and NGOs have begun collaborative processes to develop standards and procedures to ensure additionality, while also permitting projects that remain more closely tuned to consumer demands than those under the CDM. Defra could play a more useful role in supporting these NGOs in the development of standards for the voluntary carbon market.

2. Problems with EUAs

Applying a quality mark to EUAs would be unwise for several reasons. The key concern is that EUA prices may fall to levels that would make a mockery of the code of "best practice". Other reasons relate to particular design elements of the EU ETS that are currently imperfect.

First, as is well-known, the allocation of EUAs via the NAPs involves asymmetric information problems and wasted resources on lobbying and rent-seeking. Firms have an incentive to bias their cost and emission estimates upwards in order to obtain a more generous allowance and a looser cap. Uncertainty is crucial in this context (Grubb & Ferrario, 2006) and cannot be assumed away. The (almost inevitable) over-allocation in Phase I (Ellerman and Buchner, 2006) has been partly to blame for the fact that current spot prices are below €1/tCO₂. While there have been substantial cuts to the Phase II NAPs, it is not impossible that the similar dynamics will be seen to have generated over-allocation in Phase II. A Phase II EUA price crash is not impossible, and it represents the risk of embarrassment for the code of "best" practice. Even the

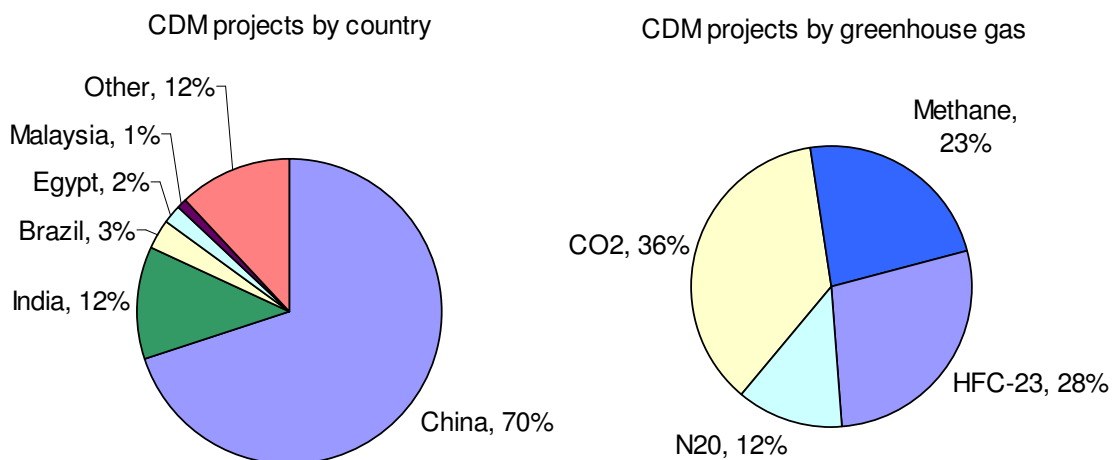
most altruistic consumer is unlikely to want to “offset” their emissions by purchasing EUAs to remedy failures in the design of the EU ETS. Project-based mechanisms, including VERs, CERs and ERUs, carry much less risk in this context.

Second, myriad problems are created by the fact that EUAs are largely distributed for free, and roughly as a function of past emissions. As is well known from economic theory, this leads to perverse dynamic effects where firms have an incentive to emit more now in order to receive a larger free allocation in the future. Furthermore, free allocation is a regressive transfer of wealth from (relatively poor) citizens to (relatively wealthy) shareholders (Hepburn et al, 2006a; 2006b). Encouraging consumers to offset their emissions by purchasing EUAs that have been given to shareholders for free has regressive distributional consequences.

3. Problems with CERs

While EUAs pose the greatest risk to the credibility of the Defra quality mark, its application solely to CERs and ERUs also raises difficulties. The CDM has functioned, as was expected, to direct abatement efforts to the short-term efficient opportunities. This, however, has resulted in CDM projects being concentrated in relatively few countries, particularly China, and further being focused on non-CO₂ gases in relatively few industry sectors, in particular on HFC-23 from refrigerant manufacturing (see Figure 1). There are two social problems with this. First, as with the EU ETS, the CDM is doing relatively little to address the crucial long-term needs to reduce CO₂ emissions from the energy sector at a time when high-carbon capital assets are being locked in. Second, it is contributing very little to sustainable development in the poorest countries, which was one of the original objectives of the mechanism. In particular, projects in Africa constitute a tiny percentage of the total projects.

Figure 1: Concentration of CDM projects by country and industry



Wara (2007) argues strongly that if the CDM were to be viewed as a subsidy, rather than a market, it would be judged to be an extremely bad policy, because buyers in Western Europe are paying approximately ten times the marginal cost of abatement for HFC-23 projects in China. So while the market mechanism itself is efficient — it seeks out the cheapest projects — the subsidy design is flawed. Rather than constructing a perfectly competitive market, where the price is determined by the forces of supply and demand, one could imagine an instrument which served a benevolent monopsonist, who used carbon finance flows at each point to achieve the greatest possible emission reductions by paying just enough to induce a project developer to run the project.

The CDM has also created some perverse incentives (Stern et al, 2006, p505). Both private participants and governments of developing countries face issues of moral hazard. Governments have an incentive not to impose regulations on emissions that would imply that lucrative CDM projects are incorporated into the 'baseline'. In other words, the CDM reduces the incentives of developing country governments to enact policies reducing emissions. Project participants have an incentive to design their projects so that they just, at the margin, fail to be economically sensible without the support of carbon finance through the CDM.

Furthermore, transaction costs of CDM projects can still be rather high. For instance, Stern et al (2006, p505) note that it has proved difficult to establish methodologies for transport and energy efficiency in sectors dominated by small and medium-sized enterprises, because transaction costs are more difficult to overcome.

In the past, criticisms have been levelled at the United Nations bureaucracy running the CDM, ranging from the assertion that the CDM EB has been too weak or too onerous, and certainly too slow (e.g. Peters, 2005). While many of these problems are improving, some industry participants still express the view that the CDM EB needs reform.

Hopefully, these various problems with the CDM can be ironed out over time. The point, however, is that the CERs hardly represent "best practice" in the climate policy sphere. While VERs certified to the VCS or VGS suffer from some of the same problems, they have compensating advantages (focus on sustainable development, innovation and flexibility, lower transaction costs, greater media scrutiny, differentiation). In short, the difference in robustness between CERs and VERs is not sufficiently great to warrant Defra including one yet excluding the other. Moreover, there are good institutional reasons to include VERs, which we consider next.

4. Institutional diversity

Economists are fond of noting that simple economic theory suggests that only one policy instrument is required for each externality. One might argue, therefore, that all we need to do to solve climate change is to establish a global carbon price at the level of the social cost of carbon.

Indeed, setting carbon prices that are roughly equivalent across the world should be at the core of international climate policy. However, climate change is no textbook economic problem. It is complex, uncertain, international, intergenerational and non-marginal. As such, a diversity of policy instruments can and should be used at the national and regional level, partly as a form of “policy insurance”. Indeed, we observe most national governments adopting a multiplicity of different approaches, including technology subsidies, feed-in tariffs, information campaigns, behaviour change programmes etc.¹

As with the diversity of policy instruments, we can also hedge risks by building institutional capacity in more than one entity and location. It is right that the major part of the fight against climate change is conducted through the UNFCCC. However, it would be extremely unwise to encourage all of our institutional eggs to be placed in this one basket. Stimulating and encouraging a consumer-led market for voluntary offsets, guided by NGOs who are devoted to reducing emissions, provides an important institutional hedge against, for instance, failure to agree upon post-2012 targets at the UN. If, for whatever, reason, government efforts do flounder, having a “back-up” in the form of a partnership between NGOs and civil society, business and individuals seems sensible. Unfortunately, as currently drafted, the Defra proposal tends to undermine, rather than support, valuable institutional diversity.



Despite these remarks, some elements in the proposal are sensible, and Defra should be commended for its efforts to assist the development of the voluntary market. Defra has considerable institutional knowledge and skills that may be brought to bear to improve the voluntary carbon market. As one example, Defra could provide valuable guidance on the provision and operation of an internationally-linked registry. This would be welcome, and could do more to increase consumer confidence in offsetting than the proposal to simply exclude VERs from the quality mark.

¹ There are other less sensible reasons for this policy proliferation, discussed in Hepburn (2006).

References

- Economist. 2006. Upset about offsets, 3 August 2006.
- Ellerman AD, Buchner B. 2006. Over-Allocation or Abatement? A Preliminary Analysis of the EU Emissions Trading Scheme Based on the 2006 Emissions Data. *MIT Joint Program on the Science and Policy of Global Change*, Report 141.
- Grubb M, Ferrario, F. 2006. False confidences: forecasting errors and emission caps in CO2 trading systems. *Climate Policy* 6(4): 495-502.
- Hepburn C. 2006. Regulating by prices, quantities or both: an update and an overview. *Oxford Review of Economic Policy* 22(2):226-247.
- Hepburn C, Quah J, Ritz R. 2006a. Emissions trading and profit-neutral grandfathering. *Oxford Economics Department*, Paper 295.
- Hepburn C, Neuhoff K, Grubb M, Matthes F, Tse M. 2006b. Auctioning of EU ETS Phase II allowances: why and how? *Climate Policy*, 6(1):137-160.
- Irons, B. and Hepburn, C. 2007. Regret theory and the tyranny of choice. *Economic Record*, 83, forthcoming.
- Liverman D, 2006. Survival into the Future in the Face of Climate Change, in *Survival: the 2006 Darwin Lectures*, Cambridge: Cambridge University Press, Ch 8.
- Monbiot G. 2006. *Buying Complacency*, 17 January 2006 at <http://www.zmag.org/Sustainers/Content/2006-01/22monbiot.cfm>.
- Wara M. 2007. 'Is the global carbon market working?' *Nature* 445(8): 595-596.