position statement

Environment Agency

Carbon offset initiatives

Key issues

Carbon dioxide (CO_2) levels in the atmosphere will need to be constrained if we are to limit climate change.

Trees take up and store CO_2 as they grow. Sequestering or 'fixing' carbon through forestry could be a way of reducing CO_2 levels in the atmosphere. But at an international level, the role of forestry in meeting the objectives of the Climate Change Convention has been contentious. There are concerns about the lack of permanence and a possible reduction in effort on more permanent carbon reduction initiatives. However, the Kyoto Protocol allows forestry projects that meet detailed guidance to be set against emissions targets.

Offset services, including products that sponsor forestry, are now available to help organisations and individuals compensate for their activities. Options include planting trees, saving energy or purchasing carbon allowances. The approach is controversial because it does not cut direct emissions from the purchaser, but may buy time for more permanent reductions brought about by other mitigation technologies. However, it can be useful as a form of trading.

Carbon sequestration through forestry within voluntary frameworks is not subject to any regulations or standards. Offsets need to be treated with caution as some plantations may damage communities and their local environment. The credibility of some schemes has also been questioned.

For offsets to be credible, it must be possible to:

- verify that the claimed emissions reductions are **permanent**
- demonstrate that they are **additional** to what would have happened.

The level of carbon stored in forests is difficult to measure. This makes it difficult to be certain about the real contribution made by offset schemes involving forestry.

Though we welcome individuals or organisations deciding to offset their operational impacts (e.g. travel), we believe that practical action that cuts emissions is the priority.

There is a danger that short-term offsetting schemes do not make a long-term contribution to reducing greenhouse gas emissions. They could also allow groups and individuals to claim CO_2 neutrality while continuing to emit greenhouse gases and depend on fossil fuels. But they are better than people doing nothing – especially if they are a stage on the path to practical action.

The Environment Agency's role

We have no direct regulatory role in the development or management of carbon offset services, though we have used them on some occasions in local initiatives.

… in monitoring and reporting on the state of the environment
Large-scale forestry can have environmental impacts on soils, water resources and biodiversity. We wish to see the environment and communities protected through high-quality, well-managed schemes.

… in limiting climate change
We support the Government's UK Climate Change Programme and the Energy White Paper. We believe that greatest benefits for the environment and the long-term reduction of carbon dioxide emissions come from:

- reducing unnecessary energy use
- increasing energy efficiency
- switching to renewable energy.

Priority should be given to these routes. The purchase of carbon offsets can then help to reduce unavoidable emissions.

Solutions – we call for:

- Use of offsetting only **after** low carbon solutions such as energy efficiency measures and renewable energy have been fully exploited.
- Individuals or organisations to be encouraged to:
  - use best available technology for fossil fuel use – if possible substituting with biofuels to reduce overall emissions and, for large-scale users, investigating carbon capture and storage;
  - retire EU Emissions Trading Scheme (EU ETS) credits through energy efficiency and renewables.
- Local energy projects to be employed before sequestration/offset initiatives if emissions are inevitable.
- A formal framework for the offsetting of carbon emissions to address issues concerned with project credibility and environmental/social impacts. Clarity will help users to select :
  - schemes that meet common standards;
  - credible suppliers when buying EU ETS credits (even when these have no identified source).
- Proof that the action taken was not going to happen anyway and evidence it is permanent.
- UK and Welsh Assembly Government information and education campaigns to explain the issues and promote quality products.
- Good practice guidance (e.g. the Government's Green Claims Code and ISO 14021) for business users.

- People and organisations to be encouraged to make real and permanent reductions in their CO_2 emissions.

These measures will help ensure the appropriate use of offsetting to reduce England and Wales' overall carbon dioxide emissions, wherever they occur.

Background

Carbon offset services offer to calculate and 'absorb' the amounts of CO_2 emitted during travel and other business activities on behalf of an individual or organisation. They claim emission reductions by:

- tree planting
- energy efficiency savings
- renewable energy supply
- new approaches to agriculture (e.g. reduced tillage) in the UK and overseas.

However, the assumptions behind the projects may not be clear. Cheaper offsets may mean lower standards of scheme design and permanence. For example, a hectare of industrial plantation forest may absorb up to a hundred tonnes of CO_2 – far more than smaller scale and more sustainable agro-forestry schemes. But soil disturbance during forest management and thinning activity will affect the release of carbon to be accounted for.

Carbon sequestration through biological sinks is recognised in the Kyoto Protocol as a way of reducing CO_2 in the atmosphere. Rules for accounting and reporting are being developed under this framework, but voluntary carbon offsetting has no formal rules. EU ETS allows a percentage of overall credits to be made through land use and forestry.

Carbon sinks may help buy time in reducing atmospheric CO_2 but are not permanent. The risk of re-emission of stored carbon and the need to change behaviour means that they can only ever be a small part of the solution.

The rate at which UK forests are accumulating carbon is less than 2 per cent of our carbon emissions; all the carbon in our forests (around 150 million tonnes) is only five times that emitted each year through use of road transport fuels. Half a hectare of land forested for one rotation could store the carbon from one person's lifetime of driving, but there are 30 million drivers in the UK.

Forest projects in developing countries can be granted credits under the Kyoto Protocol's Clean Development Mechanism (CDM). This is designed to promote sustainable development for host countries while reducing the costs of cutting emissions by allowing flexibility and the taking of credits from projects sponsored by industrial countries. The credits are expressed as Certified Emissions Reductions (CERs) (i.e. tonnes of CO_2 avoided) and are tradable. The Protocol allocates 2 per cent of CERs to fund adaptation to climate change in vulnerable countries.

CDM forestry projects are not tightly regulated and could be environmentally damaging. Farmers displaced by plantations could clear forests elsewhere causing ‘leakage’ of emissions. The ‘Gold Standard’ for CDM projects has been developed to encourage projects that seek to guarantee the highest standards of credibility and contribution to sustainable development. The aim is to add distinctiveness and to encourage a premium to make smaller, quality projects worthwhile.

Time-limited carbon credits deal with the issues of ‘permanence’ and accounting uncertainties. Funders of carbon sink projects can choose between short-term or long-term credits. The former are time-limited; the latter last longer but are subject to tighter monitoring rules.

In the UK, the Advisory Committee on Consumer Products and the Environment (ACPE) has suggested guiding principles for offset products.

Some users of offset products have suggested that association with a popular initiative like tree planting is the only way their organisation can gain publicity for their action. The market for such products may not be the same as certified carbon trading activity under EU ETS.