

Becoming Carbon Neutral while supporting Sustainable Development: A Challenge for Development and Environment NGOs

Discussion Paper
September 2004

Maryanne Grieg-Gran, Saleemul Huq, James Mayers and Hannah Reid
International Institute for Environment and Development (IIED)

Background

There is now clear evidence that emissions from greenhouse gases (GHGs) are contributing to climate change in ways which may cause adverse (and potentially catastrophic) impacts on the global climatic system and hence on both human as well as natural ecosystems. Efforts to reduce the emission of GHGs through government action at the international level, through the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol, have so far resulted in only modest action in some countries. However, the responsibility for reducing such emissions cannot be left only to the governments. Private companies, other organisations, communities and individual citizens must also take responsibility to reduce their own GHG emissions. A number of organisations have already taken steps to make themselves carbon neutral through efforts to reduce their GHG emissions and by ensuring that any emissions for which they are responsible that they find impossible to reduce are offset by a commensurate reduction. This is usually done through the purchase of such offsets from organisations that specialise in providing them. There are several schemes on the market.

Most provisions for carbon offsets available through the market are for reduction of GHGs only (usually through sequestration of carbon dioxide through planting of trees). One opportunity is to stimulate a market for activities that not only provide GHG reduction benefits but deliver sustainable development benefits as well. It is assumed that if such a provision existed then a range of organisations, previously un-excited by the options available, might be interested in making greater effort towards carbon neutrality. Some of the challenges in this approach are outlined below.

Another alternative, or complementary, approach to addressing the challenges posed to sustainable development from the climate change impact of our own organisation would be to set up a scheme whereby our GHG emissions are balanced by support for commensurate work on adaptation or resilience to the effects of climate change. This is not explored further here since our focus, initially at least, is on emissions reduction.

Estimating GHG emissions

There are now several increasingly credible web-based methods for estimating the emission of GHGs from the activities of individuals as well as organisations. These include the use of: products such as paper and office equipment; energy in lighting and heating; transport (both local as well as long haul); waste, etc.

By far the most important contribution to GHG emissions, for individuals and organisations that travel, comes from long haul travel by air. Hence the amount of air travel is sometimes used as a simple proxy for emissions of GHGs.

An initial estimate of IIED's GHG emissions for one year, January to December 2003, is 372 tonnes of carbon dioxide. Of this, work travel comprises 69% (almost all of this from air travel), commuting to and from IIED offices 4%, utilities (gas and electricity) 26% and waste 2%.¹

Future estimates could be improved through exploring mechanisms such as:

- Recording the mileage every time we travel – e.g. requiring travel authorisation forms which include a mileage calculation
- Working with Key Travel (or other travel agents) to ensure they provide a mileage/emissions calculation with every quote/ticket, and perhaps incorporate the costs of offsetting carbon into ticket prices.
- Paying travel expenses only on completion also of a travel mileage/emissions form

In future we should also explore how IIED could incorporate calculation of, and response to:

- Increased emissions generated by others working with us – e.g. flying people to conferences
- Reduced emissions by others through working with us – e.g. appropriate work of the Climate Change programme, the Forestry and Land Use programme and perhaps other groups in IIED could be tasked to make credible estimates of how much their work contributes to emissions reduction. (As noted above a further possibility would be to work out how much our work contributes to adaptation and resilience – but this is not explored further here)

Reducing emissions

Some GHG emissions may be reduced – for example by IIED staff and partners getting on their bicycles more often, taking part in fewer, better planned and placed meetings involving travel, introducing more tele/video conferencing instead of some face-to-face meetings, travelling by Eurostar instead of flying to European destinations etc. See <http://www.cannybuyer.com> for information on how organisations, which spend large amounts of money on workshop type activities, can use their buying power to make positive environmental impacts. Targets could be set for these and other actions. The Tyndall Centre at the University of East Anglia, for example, recently established a target to decrease carbon emissions from air travel by 10% per year. . It takes a voluntary approach to this, i.e. leaving it to the initiative of Tyndall staff to reduce their emissions.

¹ Notes on this first estimate of IIED emissions:

- It is based on air/rail travel figures for both IIED staff and visitors drawing from the records of our main travel agent - Key Travel. It also includes estimates of travel by staff in IIED's Edinburgh office not booked through Key Travel. It does not include any travel by London office staff or visitors that was not booked through Key Travel
- IIED pays a climate change levy on gas and electricity consumption so arguably these emissions do not need to be offset
- Not included are indirect emissions from manufacture of the paper, other office supplies and equipment that IIED uses.

The International Institute for Sustainable Development (IISD) encourages carpooling and use of public transport. Forum for the Future calculates and costs its emissions, includes these costs as debits in its annual accounts and uses the capital to finance the costs of switching to green electricity tariffs (as well as offsetting carbon – see below).

Offsetting non-reducible carbon

Once the GHG emissions total that cannot realistically be reduced is estimated, then it can be offset through some sort of emissions reduction scheme. There are a number of organisations, which provide emission offsetting services, usually at a price per tonne of carbon offset. Most of them use tree planting to sequester carbon dioxide from the atmosphere.

Some examples:

- **Future Forests** (<http://www.futureforests.com>) – ensure forests are planted and managed to store carbon. Most of these are in the UK, but they support one project in Chiapas, Mexico and Karnataka in India (supported by the band Coldplay), and a handful of others in the South. Future Forests also offers one or two other 'sustainable development' options such as the purchase of low energy light bulbs for communities in developing countries.
- **Climate Care** (<http://www.co2.org/projects> or <http://www.climatecare.org/>) - is another offset provider. Although its primary emphasis is environmental it does make claims to supporting community development in some of its projects e.g. in Uganda.
- **Klimabalance** (<http://www.klimabalance.de>) - is a German facilitator of offsets. An example of a recent deal brokered was between the World Bank Forest Team and Powerguda village in Andhra Pradesh, India – whereby the Bank purchased the equivalent of 147 tonnes of CO₂ in verified emissions reductions over ten years from the production of natural pongamia oil from a native tree – an oil which substitutes for petroleum diesel in some power generators and other engines. The role of Klimabalance is to guarantee the purchase of the emission reductions and, in this case, their 'retirement' or permanent withdrawal from the market. The Bank sought this particular amount to offset emissions from air travel to a three-day international forestry workshop in October 2003.

Assessing how much to pay for Carbon off-sets

The next step is to find a mechanism to assess how much to pay for carbon offsets. A simple measure (as used for example by IISD, Canada) is to levy a "carbon tax" on all travel carried out by individuals in the organisation (which is based on the distance travelled) and then use the revenue to purchase carbon offsets. Other options would be to make more detailed estimates of the GHG emission and allocate a price for the carbon offsets required. When schemes deal in certified, tradable emissions reductions, they tend to be more expensive and perhaps inappropriate for organisations such as IIED, which would be likely to wish to 'retire' any emissions reductions (i.e. we would have no interest in selling on any emission reduction certificates).

Carbon offsets with sustainable development benefits

Most of the carbon offsets being offered so far are for GHG emission reduction only, but there is a potential market for carbon offsets PLUS sustainable development benefits (i.e. "C+SD"). The offset providers noted above certainly claim to have some social credentials, usually reflected in the nature and aims of their specific projects. What is generally lacking is systematic evidence that they are having any positive impact on development.

The challenge in developing and delivering C+SD benefits includes:

- Identifying suitable projects
- Having a robust and reliable methodology for calculating C and SD benefit
- Monitoring and verifying their C+SD benefits

There are some options being developed which are beginning to show credible long-term C+SD benefits, including:

- **Plan Vivo** (<http://www.eccm.uk.com/planvivo/>) – which aims to be a system for managing the supply of verifiable emission reductions from rural communities in a way that promotes sustainable livelihoods. Pioneered in Mexico and now also operating on a small scale in India, Mozambique and Uganda, the Plan Vivo System is managed by BioClimate Research and Development (BR&D), which is a non-for-profit organization. BR&D is responsible for development and maintenance of the Plan Vivo system and "contracts" the Edinburgh Centre for Carbon Management to provide the systems maintenance resources needed for its continued development.
- **Local Community Carbon Sequestration Initiative in Kenya** (Bureau of Environmental Analysis (BEA) International) (www.beainternational.org)
- **The Forest Climate Alliance** - which is expanding efforts to provide support for project developers of forest carbon projects in the rural development community, through information, analysis, and connection with buyers, sellers, and intermediaries. Contact Mira Inbar: minbar@forest-trends.org
- Others such as the Rural Development Trust, India

IIED with partners has carried out case studies on the social impacts of some specific carbon sequestration projects in Costa Rica, Ecuador, Brazil and Bolivia. One of the projects in Brazil, for example, in the Ilha do Bananal in Tocantins state, has placed a heavy emphasis on social carbon and was classed by the authors of the case study as a developmental project (as opposed to a commercial project or a conservation project)².

One of the challenges of initiatives that explicitly aim to contribute to rural development by supporting smallholder livelihoods is to achieve sufficient scale to be economically viable, and to retain sufficient local institutional strength to guarantee the carbon stored for the required duration. Options to consider include channeling offset money to existing projects that have already had some evaluation, and pooling offset resources with others to achieve sufficient scale.

An arrangement for IIED to offset an initial year of emissions

IIED has decided to offset an initial year of GHG emissions by contributing to a Plan Vivo project with local sustainable development benefits. The project is the **Nhambita**

² Local sustainable development effects of forest carbon projects in Brazil and Bolivia. A view from the field, 2004. Peter H. May, Emily Boyd, Fernando Veiga and Manyu Chang. Markets for Environmental Services No.5, IIED available at www.iied.org/eep/pubs/MarketsforEnvironmentalServicesseries.html

Community Carbon Project, Mozambique. This project aims to offset 50,000 tonnes CO₂/yr by 2007, and 100,000 tonnes CO₂/year by 2010. The project works with the Nhambita community and local farmers next to the Gorongosa National Park. It aims to reduce deforestation by introducing sustainable land use systems, improving forest management and agricultural practices, and providing alternative income opportunities. Activities include improving fallow, planting firebreak and fruit orchards and intercropping with nitrogen fixing tree species. Farmers benefit from food, soil improvements, fuel wood, fodder and timber.

Questions for IIED to further explore:

- What opportunities exist for voluntary staff initiatives to reduce GHG emissions?
- Should we go for a simple or more comprehensive estimate of our GHG emissions? (One rationale for IIED and other UK-based organisations to focus on air travel is that other sources of emissions are already subject to an environmental tax - the climate change levy in the case of gas and electricity and the landfill tax for any waste going to landfill).
- How could we continue to look internally at ways to reduce emissions? For example, by changing to greener electricity suppliers?
- How would we impose a "Carbon tax"? On programmes separately or centrally
- An external or an internal scheme? A carbon offset deal is the obvious choice for the former (and this is the path we have chosen for the first year at least of our initiative); an internal scheme could be based on an arrangement whereby every flight taken results in a payment, for example, to the Forestry and Land Use programme to do forest friendly policy work – or a payment to partners involved in related work or on-the-ground carbon storage work.
- Should we institute such a plan just for ourselves or should we seek to join up with others and create, for example, a buyers' pool for C+SD offsets? (the amount of emissions we generate is not great, so if we are going to do anything other than pay to an existing offset provider, we will need to team up with others, or pay the money to an existing project directly). The Climate Group could be useful for linking in with businesses, and the Climate Change and Development Group could provide links with development/environmental NGOs interested in reducing or offsetting emissions.
- Investigate further collaboration between IIED and its partners and organisations such as Climate Care, which have an interest in finding suitable projects for their portfolio.
- Another issue to consider relates to the methodology for calculating C and SD benefit. To what extent are we going to follow the rules of the Clean Development Mechanism in terms of what counts as carbon sequestration - avoided deforestation, natural forest management etc. The CDM route is expensive (requiring certification) – and it is currently very difficult to get small-scale approaches installed under the CDM since costs are too prohibitive. Going outside these rules, in a robustly defensible way, might allow us to make more of a difference and would most probably increase the scope for development benefits.

Potential partners

A number of organisations have already expressed interest in sharing the results of our discussion. These include:

- Department for International Development (DFID), UK – emerging sustainable development team

- International Institute for Sustainable Development (IISD)
- Canadian International Development Agency (CIDA)
- Members of the Working Group on Climate Change and Development (including ActionAid, Oxfam, New Economics Foundation)
- Tyndall Centre for Climate Change Research
- Regional and International Networking Group (RING) partners
- Forestry Research Programme of DFID
- Edinburgh Centre for Carbon Management (ECCM)