WHAT ARE CARBON OFFSETS

A carbon offset is technically defined as occurring when an actor (individual, company, NGO, the state) invests in a project that results in a reduction of greenhouse gas (GHG) emissions that would not have occurred in the absence of the project (WBCSD and WRI 2005). Emissions can be reduced anywhere in the world, away from the source, because they mix uniformly in the atmosphere. Consequently, many offset projects take place in the developing world where it is often cheaper and easier to remove the emissions. Industrialized countries are required by law, under the Kyoto Protocol, to reduce emissions. Removing emissions in developing countries, rather than the country they were produced, therefore works outside this framework, by making cuts which are additional to legal requirements.

PROJECT TYPES

Offset projects generate emission reduction credits which can be traded within its relevant market, or sold directly to customers in exchange for emission reductions. There are currently two principal parallel markets for managing offsets: those regulated by the Kyoto Protocol and those that exist outside of Kyoto in the voluntary carbon market. They operate on different scales and under different regulatory frameworks. Currently there is no legal regulation in the voluntary market but strict regulation in the compliance (regulated) market.

The projects are broadly split into three categories: renewables, energy efficiency and sequestration. A typical example of a renewable project would be the replacement of a coal-powered electricity generator with a hydro-electric one.

These projects can exist on many scales and within multiple markets:

- Individuals, companies and relatively small-scale emitters can offset emissions within the voluntary offset market, for example by paying an offset company against the emissions produced from a holiday flight.
- Large scale emitters (power companies, cement producers, industrial facilities) are legally required to offset through a framework implemented under the Kyoto Protocol.

THE VOLUNTARY SECTOR

The voluntary market has grown exponentially in recent years. It is currently estimated to trade between 40-100million tonnes CO₂e and expected to grow to 400million tones by 2010 (ICF, 2006). The voluntary carbon market allows individuals and corporations not covered by the Kyoto Protocol’s Emissions Trading Scheme to offset their GHG emissions and is made up of a growing number of companies in the profit and not-for-profit sectors. The price, range and quality of emissions reductions provided by the sector vary hugely between offset companies. This variation exists because of lack of regulation of the sector, and has opened up the market to criticism.

KEY ISSUES AND DEBATES

There are a number of issues and debates which surround the voluntary carbon market. Overall, the offset retailers defend the niche market provided by this sector, while critics feel that the lack of regulation and authority risks undermining the integrity of offsetting. The following issues are the subject of current research and discussion:

Additionality

An offset can only qualify if it is proven to be additional to the ‘business-as-usual’ scenario of (baseline) emissions, by going above and beyond the reductions which
showed that forestry offsets were one of the most commonly used offset projects, but these projects have come under intense media criticism and public scrutiny over concerns of the longevity of the offsets they claim to provide. There is uncertainty surrounding the lifetime of trees and the subsequent release of gases as well as the effect of decreasing the earth’s surface albedo (reflectivity) by planting trees. Interviews with voluntary offset retailers carried out by ECI in 2007 suggest that many providers are consequently moving away from forestry offsets.

Sustainable Development
Voluntary offset retailers suggest that one of the main roles of the offset market is in the sustainable development benefits it brings through its projects. The retailers argue that the scale and freedom within the sector enables them to give more focus to the wider benefits of sustainable development by working closely with, or being set-up and run by, local communities on the ground. Whilst sustainable development is supposed to be a component of the compliance market, in reality many of the projects take a larger scale technological approach to reducing emissions, which are typically too broad to get involved at a grassroots level. There is a fear within the voluntary sector that introducing tight regulation, like that enforced in the compliance or Kyoto offset markets, would risk eradicating some of these small but valuable projects which are simply not viable under the compliance market because of the high verification costs.

Relationship to the formal climate regime
The voluntary and compliance markets are currently parallel markets, separated by their scale and regulatory frameworks. There are strong calls for regulation to be applied to the voluntary market in order to ensure the validity of offsets being sold. Discussion is taking place as to whether a tightly regulated approach should be applied or whether more flexible policy would be better suited to the sector.

The voluntary market argues that one of the distinct advantages of the sector is the freedom to trial and better develop new innovative technologies and methodologies before introduction into the formal climate regime. It is therefore hoped that the benefits of this freedom to road-test new technologies will continue within any proposed future regulatory framework. Those within the voluntary sector expect that the two markets will merge before 2020 and are concentrating efforts on making sure it is developed in a way that works for both markets.

SUMMARY
The voluntary market plays a significant role in the reduction of greenhouse gas emissions worldwide and greenhouse gas reductions are achieved more cheaply than those removed through the compliance market because of lower implementation costs and overheads. Those within the market believe they enable in-situ testing of new path-breaking technologies and methodologies which eventually end up in the compliance market. They also offer sustainable development benefits to people on the ground by working closely with the communities they occupy. Conversely, voluntary offsets vary hugely in quality and effectiveness, and are criticized for being poorly regulated and threatening to undermine the integrity of offsetting in general. Also, some projects rely on techniques, such as re-forestation, which are not proven to be robust. The next few years will be crucial for this sector. It is anticipated that more rigorous international regulation and policies will be developed to help ensure that offsets are only sold in return for genuine emissions reductions within a well functioning and transparent market.

would have ordinarily occurred in its absence. The implementation of projects which offer positive business incentives (for example those which might result in financial profit for one or more of the actors involved) do not therefore qualify as valid offsets. Although simple in concept, proving additionality is difficult and requires validation by testing against multiple business incentives - be they financial, legal, environmental etc. This is particularly problematic to assess as it's not always clear what would have happened in a 'normal' scenario in the absence of the offset. Testing project's authenticity is even more significant in the voluntary market due to the lack of standards and regulation within the sector.

There are however, a number of standards emerging from within the sector to help defend the integrity of projects within the voluntary market. Two of note include: WWF’s ‘Voluntary Gold Standard’ which encourages sustainable development through projects in developing countries (restricted to energy efficiency and renewable energy projects); and the Climate Group’s ‘Voluntary Carbon Standard’ to be re-launched in late 2007.

Ethics and indulgences
Critics of the voluntary market argue that the process of buying offsets actually encourages further consumption, as the buyer can ease their guilt without making fundamental changes in behaviour, such as reducing the number of flights they take. Voluntary offset providers have defended their position by suggesting that the process of buying offsets actually does make people more aware of climate change and does translate into positive actions in other areas of their lives.

Forestry offsets
A database of voluntary offset projects compiled by the Tyndall Centre for Climate Change Research in 2006 showed that forestry offsets were one of the most commonly used offset projects, but these projects have come under intense media criticism and public scrutiny over concerns of the longevity of the offsets they claim to provide. There is uncertainty surrounding the lifetime of trees and the subsequent release of gases as well as the effect of decreasing the earth’s surface albedo (reflectivity) by planting trees. Interviews with voluntary offset retailers carried out by ECI in 2007 suggest that many providers are consequently moving away from forestry offsets.

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