JULIE'S BICYCLE

SUSTAINING CREATIVITY

FACT SHEET:
OFFSETS

Cop out or climate winner?

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Carbon offsetting is a mechanism that has been used by governments, companies and individuals in order to attempt to reduce the environmental damage of their activities. The performing arts sector, especially music, is using carbon offsetting as a route to address some of the environmental impacts of their activities. Carbon offsetting should not be used as an alternative to direct actions which reduce emissions. Carbon offsetting projects have differentiated environmental and social benefits which need to be understood. This note provides an explanation of what carbon offsetting is, how it works, and guidance on how to choose a carbon offset investment.

What exactly is carbon offsetting?

A carbon offset is a mechanism that allows a company, organisation or individual to reduce its environmental impact on the atmosphere in one area by investing in projects that reduce greenhouse gas (GHG) emissions in another.

Offsets are controversial. Some offset projects have questionable emissions reductions, create unwanted local effects and open the possibility for fraud and profiteering by 'carbon cowboys'. On the other hand, carbon offsets are popular because they are often cheaper, faster and easier than domestic emissions reductions. Often carbon offsets are carried out in developing countries and in some circumstances projects have led to significant local benefits, assisting communities with direct financial benefits or project co-benefits such as access to electricity. Carbon offsets are neither the solution to climate change, nor the antithesis of carbon mitigation action. If carried out correctly and as part of a wider climate change strategy offsets can create both atmospheric and social benefits.

How does carbon offsetting work?

Carbon reductions can come in three forms:

1) removing carbon directly from the atmosphere, such as by planting trees to increase carbon sequestration,

2) by investing in energy efficiency or new clean technology to replace fossil fuel burning or

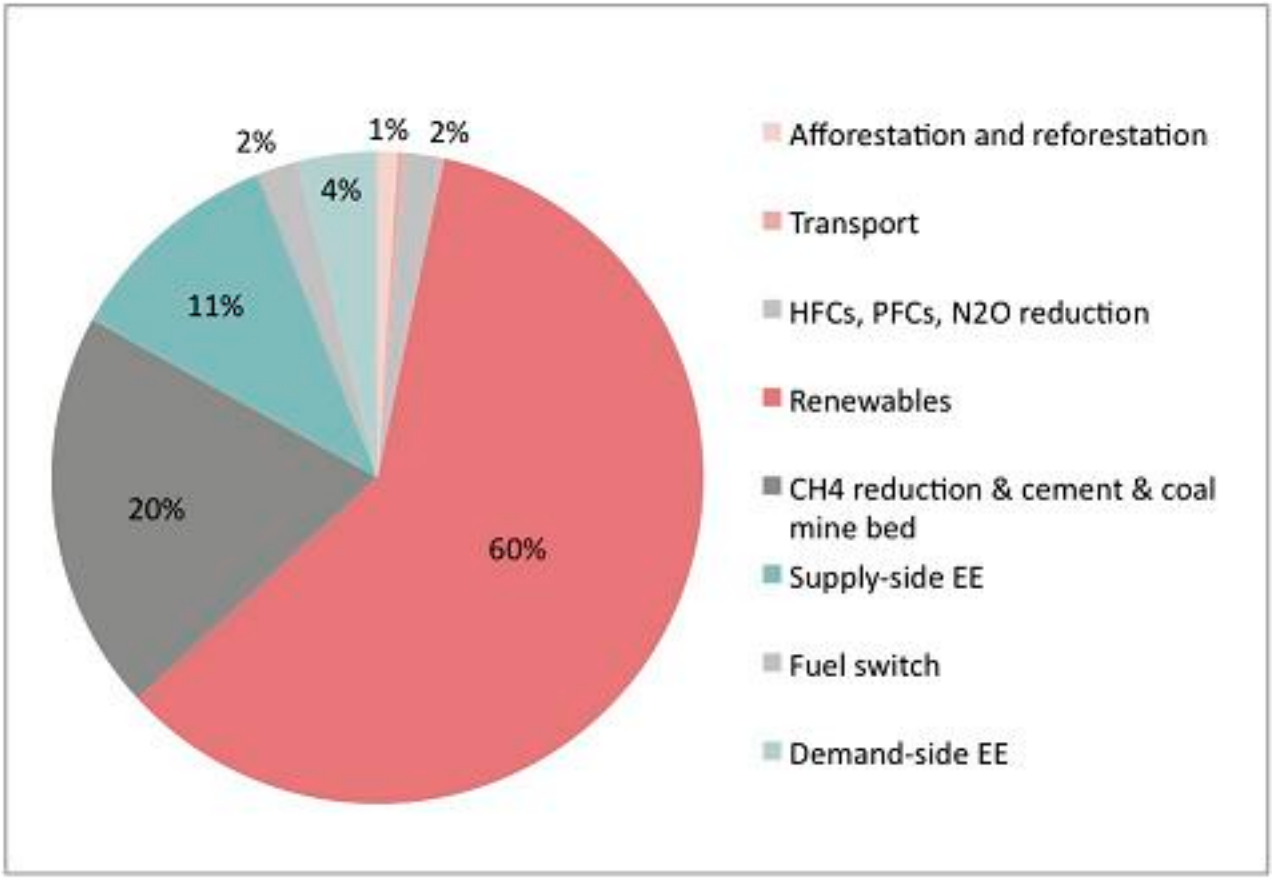
3) by removing pollution allowances from compliance carbon markets so that they are no longer available for heavy industry to use.

Offsetting by using projects

The difference in emissions that would have been emitted and the current, lower emissions (i.e. because of the new project investment) create reductions that are traded as metric tonnes of CO2 equivalent (i.e. carbon credits). Many types of projects are used in carbon offsets. These range from industrial gas destruction to community-based agro forestry (see Figure 1).

Figure 1: Number (%) of CDM projects in each category (source: UNEP Riscoe, Feb 2010)

(see overleaf)



Offsetting by removing pollution allowances from the market

This method of offsetting involves purchasing "permits to pollute" from a compliance carbon market, for example the EU Emissions Trading Scheme, and cancelling (retiring) them so they cannot be used by industrial companies. The heavy polluters that would have bought the permits instead have to reduce their emissions and become more efficient. It is straightforward and robust way to offset as the emissions reductions are guaranteed. The UK Government endorses this approach and it is used by the Committee on Climate Change, a board of climate scientists and economists that advises the UK Government on carbon budgets.

This approach is different to project-offsetting in that it reduces emissions in developed countries where emissions per capita are currently very high. It forces investment in low-carbon technology, creating long-term change and preventing emissions before they happen.

Markets for creating reductions

The reductions and transference of credits take place in two broad market categories. These markets differ in governance, size, project types and prices (see Table 4 below). Firstly, the compliance market includes the Kyoto Protocol's Clean Development Mechanism (CDM) and Joint Implementation (JI). Secondly, the voluntary carbon offset (VCO) market is not regulated and is used by organisations not bound by Kyoto to offset their emissions primarily for public relations and for reasons of corporate social responsibility (Hamilton et al., 2009). Although traditionally the voluntary and compliance markets differed in project types, credit sourcing in the CDM is increasingly influencing the voluntary markets as project developers sell Verified Emission Reductions (VERs) while awaiting CDM registration (e.g. 32% of project types are Hydroelectricity in both CDM and VCO markets).

Evolution of offset markets

Since the mid-2000s the carbon offset markets have evolved significantly in terms of knowledge, practice and their effective use. More recently, the Clean Development Mechanism (CDM) is being reformed away from the 'project-based approach' to programmes of activities (i.e. reducing emissions of a whole city) or reductions of emissions by industrial sector (i.e. setting standards for emissions reductions in a specific industry). These aim to provide cheaper emissions reductions at scale. In addition the voluntary market is increasingly self-regulating in the context of consumer awareness around carbon offsets. This is important to emerging markets, like the USA, that are looking to use credible carbon reductions in future climate change policy. Increasingly the compliance and voluntary markets are merging, as self- regulation increases. As cap-and-trade schemes develop and mature, organisations have also started to offset by removing credits from these schemes in order to push down developed-world emissions and reduce reliance on fossil fuels.

Offsetting should not be seen as the immediate go-to option for carbon management. Instead it should come after all reasonable action can be made to reduce operational emissions. The UK Carbon Trust has suggested a useful way of engaging offsets through a three-stage process:

1. Focus on direct emissions reductions through efficiency;
2. Look at reducing indirect emissions up and down the supply chain;
3. Develop an offset strategy.

Table I Characteristics of the compliance and voluntary carbon markets (source: Capoor and Ambrosi 2009; Hamilton et al. 2009).

Market	Rationale	Governance / Standards	Market Size & Value (2008)	Average credit price (2008)
Compliance	Cheap compliance under Kyoto regulations	*Governed by UN processes:* Clean Development Mechanism (CDM) Gold Standard CDM Joint Implementation	1481 million metric tonnes US$33 billion	US$16.78/ tCO_2e
Voluntary	Public relations and Corporate Social Responsibility	*Outside of formal regulation:* Voluntary Carbon Standard Gold Standard VER Climate Action Reserve	123.4 million metric tonnes US$705 million	US$7.34/$tCO_2e$

Guidance on what to look for when purchasing a carbon offset for your tour

Rather than offset type or organisation size, the best way to ensure credible carbon offsets is to use a credible standard. The EU Emissions Trading Scheme and the Clean Development Mechanism (CDM) are the most regulated markets, but the Voluntary Carbon Standard is increasingly seen as an alternative for project types and geographic regions not allowed under the CDM. For organisations that want to promote the local community development stories associated with carbon offsets, then the Gold Standard (GS) or the Climate Community and Biodiversity Standards (CCBS) will help source credits that have explicitly channelled finance into development projects. Any credible standard should produce offsets that are additional to business as usual practices, measurable, reportable and verifiable. Standards should also encourage the use of a carbon registry to track offset credits in order to prove that they have been retired (taken out of circulation) when they are bought.

Conclusions

Carbon offsets have matured since they first became mainstream climate mitigation tools in the late 1990s and early 2000s. The markets have evolved significantly, and there are choices in both the compliance and voluntary markets for organisations wishing to purchase offsets. A robust offset strategy involves achieving internal reductions as far as possible, and then sourcing carbon offsets that are registered to credible standards and tracked through carbon registries. Carbon offsets can be forces for good, but they should be considered as a tool in the box of climate solutions, not as an end in themselves.

References

www.carbonretirement.com