

What are the value, role and risks of carbon offsets?



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The Role, Value and Risks of Carbon Offsets

The simple answer to this question is that carbon offsets should be used as part of an integrated carbon management programme, that includes emissions reduction as a primary aim. They are not a substitute for emissions reduction and best practice in carbon management dictates that they are to be used for those emissions that cannot be saved. The purpose of an offset is to balance a quantity of emissions with a corresponding saving, through carbon storage or carbon saving projects.

Offset alone will not prevent carbon induced climate change, but they are an important part of the drive to stabilise atmospheric carbon dioxide by 2050. In the crudest sense, they are helping to buy time whilst behavioural change, technology and legislation begin to actually reduce emissions.

Offset is frequently used as a primary engagement tool, with purchasers of them gaining their first experience of carbon calculation and action. This process involves calculation and initially delivers an understanding of how business or personal activity links to carbon emissions. The risk is that the use of offsets as a primary activity, retards or avoids the key requirements for reduction, either to meet internationally agreed targets or to secure the sustainable future of businesses.

Increasing numbers of high profile companies declaring “Carbon Neutral” or “Carbon Zero” status or targets for their products or operations, based primarily upon offset purchase. The consequences of this may be negative, as consumers and investors become more carbon literate. The claim of carbon neutrality/zero implies a level and efficacy of action, that is illusory and adds to the deceptive idea that carbon emissions reduction is easy to achieve.

At a government level the international community have decided upon offsetting as a mechanic to help limit and reduce emissions. The offset unit forms part of this approach and is crudely designed to tax polluters and turn their money into carbon storage and reduction. Voluntary offsets are a voluntary tax and subject to credible projects, perform the same function.

For offsets to be effective they must be matched by proper calculations and management, both at an emissions output and offset project level.

All emissions relate directly to the carbon content of the fuel used. This is calculated as an output for company emissions auditing and performance. Most calculations are averaged by activity type and impact. This can and is being steadily improved upon and is used by companies to help influence choice and policy. The output calculations from companies and activity, should use government approved methodology.

Carbon offsets in the voluntary sector are supported by projects designed to make carbon savings that would not otherwise have occurred. This is called additionality and is a key project requirement for an offset.

Popular projects include, forestry, solar stoves, solar farms and biomass power generation. Each project needs to be assessed on the basis of its expected savings, how these will be managed and delivered often over the course of 10-40 years. Some detailed research in this area has suggested that less than 10% of all projects will deliver their stated aims and/or are compromised by their true additionality. Risk issues include the use of low energy lightbulbs or solar power generation as a project in a host country that is already legislating to mandate their compulsory use. Alternatives to wood fuel cooking, especially in Africa are difficult to measure and have experienced issues with continued adoption.

New tree planting is extremely popular, but takes a long time to absorb emissions and where planted in marginally cultivable locations, have higher than average failure rates.

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When using an offset it is vital to ask providers for the methodology used in calculating the savings offered and how the project is monitored and managed to ensure delivery of savings. Media scrutiny of offsets has unearthed a number of high profile failures, that when linked to the businesses that have used them, has a significant brand/reputational risk. This risk is likely to increase with the dramatic increase in demand for offsets over the last 18 months. The largest certifier of voluntary projects has certified 110 million tons to date globally, less than a third of UK emissions annually. Quality issues are likely to increase as demand outstrips supply/verification capability, leading to projects and providers that cannot satisfy their stated aims.

Offsets have a carbon value, but should be placed in the context of the wider need to reduce emissions as a primary response. Their deployment for emissions that cannot be reduced is accepted as a reasonable approach. Where companies have not measured or attempted to reduce emissions that they can reasonably control and have offset them, credibility issues will arise. It is tempting to respond to the increasing demands of “the climate emergency” and buy offsets to demonstrate sustainable credentials. This should be resisted unless organisations have undertaken their own wider reporting assessments and established their own reduction plans.

There is no substitute for reducing emissions as a primary carbon policy and engaging with suppliers, consumers and internal stakeholders to support best practice in emissions reduction. Influencing, combined with achievement in reduction, is the best route to avoid undue risk.