

## **Climate Change and Carbon Offsets**

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There is increasingly more attention directed to the global challenges of climate change. International, national agreements and legislation are in development across the globe to curb carbon emissions by market instruments such as taxes, trading schemes, subsidies and also voluntary schemes. More arguments are emerging in support of action regarding climate change, largely motivated by the most recent Intergovernmental Panel on Climate Change (IPCC) report from a scientific perspective, and similarly, the Stern Report, presenting the economic consequences of failing to respond to climate change. Government action, consumer demands, NGO lobbying, and supply chain requirements are some of the key factors driving businesses to think strategically about climate change. The necessity of an integrated response to climate change as a global challenge is becoming widely accepted. As a result, businesses are focusing on identifying how their strategies will be affected and taking action to publicly disclose emissions, address risks, pursue opportunities and emission reduction strategies.

Emission reduction strategies are starting to dominate business decisions, as pursuing low carbon growth, carbon neutrality, products and supply chains characterized by a lowered carbon footprint are just a few examples of how climate change is shaping the business agenda. Increasingly more companies are now disclosing their GHG emissions through the Carbon Disclosure Project (CDP) companies such as Tesco started to include carbon emission labels on several of its products; while others have declared their goal to become carbon neutral such as in the case of Yahoo, Dell and Swiss Re. Furthermore, as the aviation and travel sectors are gaining more attention in a climate change context, major airlines and tour companies are now offering offsets to travellers who wish to minimize their carbon footprint.

As the opportunity to offset emissions is becoming widely accessible and the selection of various offset projects is becoming abundant, businesses are exploring ways of reducing emissions through the purchase of offsets due to limited capacity to achieve direct emission reduction. Although offsetting is often a viable solution to emission reductions, the process is accompanied by numerous challenges that will be further discussed.

### **What is an offset?**

Offsetting refers to the avoidance of a specific quantity of a given source's emissions at another location through the set-up of renewable technology or a sink to capture the emissions from the atmosphere. A carbon offset is one alternative to achieving emission reduction goals in the event that direct reduction options have been exhausted or are not economically viable. Companies therefore turn to offsetting when the ability to reach further reductions through optimizing energy efficiency, reducing travel emissions or purchasing green power is limited technically or financially. Offsetting allows a company to reach emission reduction goals by investing in a variety of projects outside of its own organization such as renewable energy projects, energy efficiency improvements and forestry projects.

Carbon offsets can contribute to sustainable development provided that projects are effectively administered, meet stringent project criteria and are transparent in delivering true offsets. Such projects can promote the application of renewable technology and knowledge transfer from developed to developing countries, as parts of Asia and Africa are often selected to host offsetting projects. In addition to endorsing a more widespread application of renewable technologies, offsetting projects contribute to habitat creation and thus biodiversity as reforestation makes up a large segment of the voluntary offset market. Depending on the price of carbon and the capacity for an organization to achieve further reductions, in some cases carbon offsets can be more cost effective than direct emission reductions.

The carbon market is driven both by the regulatory framework such as the one governed by the United Nations Framework Convention on Climate Change (UNFCCC), as well as the voluntary market. According to the Forging a Frontier State of the Carbon Market Report, the compliance market, which is driven by instruments such as the European Emission Trading Scheme (ETS) was estimated at \$59 USD billion last year, while the voluntary market at \$337 USD. Values for voluntary carbon credits, however, are of lesser value than credits sold in the compliance market. In the case of the voluntary market, businesses were the largest buyers. The commitment to corporate responsibility, the goal to

demonstrate environmental stewardship, or “walk the talk” are the most frequently stated reasons as to why companies engage in voluntary offsets.<sup>1</sup>

### **Criticism and challenges of offsetting**

Offsetting has been subjected to criticism for numerous reasons. Opponents of offsetting argue that businesses can automatically purchase a “license to pollute” if they can allocate investments to offset, instead of preventing emission reductions at source. Moreover, opponents claim that having a choice to offset lessens the pressure to pursue direct emission reductions.

Proving the additionality of an offset presents a real challenge. In order for the value of an offset purchase to be proven, the additionality aspect must be established – meaning that the project which offers credits would not have taken place in the absence of the particular offset purchase. If the project for which carbon credits are issued would be developed regardless of the credit purchase, additional value in an emission reduction context is not delivered and thus fails to meet the additionality test. Obtaining a guarantee that the emissions have been truly offset through a transparent and verified process provides the buyer with confidence that the given purchase of credits results in actual reductions.

Tree planting constitutes a widely chosen alternative when it comes to voluntary carbon markets, however, the validity of forestry as an effective offset alternative is sometimes challenged. Permanence is a frequently raised concern in forestry offsets due to the potential of reversible benefits. Criticism also points to the need of addressing the real challenge – our reliance on fossil fuels. For such reasons there is heavy debate on allowing emission reduction credits from reforestation in instruments governed by the UNFCCC.

Despite that forestry based offsets are not currently accepted under Kyoto instruments, they are popular in voluntary offset initiatives, and in fact, many successful projects have already been materialized. What appeals to buyers is the importance of forestry in a climate change context.

According to estimations deforestation accounts for about 20% of global annual emissions, and therefore, reforestation projects are instrumental in generating additional carbon sinks. The role of forests in contributing to biodiversity and to a broader sustainable development context, are additional factors behind why forestry offsets are regaining momentum. However, in order to develop a credible forestry offset project, proper project administration, transparent calculation of offset credits, and monitoring of the project are aspects that cannot be neglected.

### **Planning to offset?**

If your business is planning to offset emissions, there are numerous factors that should be considered in order to minimize risks and to ensure that your offset goals are delivered. First, to avoid unwanted criticism, it is advisable to evaluate all possible reduction measures prior to considering offset purchases. When making a decision to procure offsets, be clear in stating your reason why – for example, is it to reach corporate responsibility goals, consumer branding or engagement with stakeholders?

Second, if reduction measures have been exhausted, determine the volume of emissions to be offset and whether you are operating under the regulatory or voluntary framework, as various differences apply.

Third, consider risks and determine your project preference - the type of technology, geography and standard type. Decisions regarding the above criteria influence levels of risk and quality of the credits purchased. The cost versus integrity of the carbon offset, in other words, the value and actual results of the offset for the price to pay is ultimately what presents a challenge to the offset purchaser. As the ‘UN certified’ offsets under the CDM, for example, are regulated, the voluntary market is where consumers can face confusion. In fact, offset standards have been developed to guide consumers in purchasing offsets that are appropriate to their needs. Purchasing credits that qualify for one of the broadly accepted offset standards allows the purchaser to better manage risks associated with project delivery and quality. There are a number of standards that aim to guarantee a credible offset transaction such as the Gold Standard or the Voluntary Carbon Standard. Keep in mind that offsetting

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<sup>1</sup> Ecosystem Marketplace & New Carbon Finance “Forging a Frontier, State of the Voluntary Market 2008”

standards have differences with respect to project acceptance and administration, therefore, should be selected according to project needs and levels of risk an organization is willing to accept.

Fourth, in addition to taking standardization into account, it is advisable to research the offsetter's methodology, how that particular offset project is benchmarked against other similar projects, if it is measurable and ultimately, what is its contribution to sustainable development. It is advisable to seek proof that the emissions for which credits have been purchased are not double counted, and have been truly offset. This will help the buyer of credits to gain confidence in the offsetter's ability to demonstrate the additionality aspect. It is also advisable to identify any risks of reversibility of the benefits associated with the project, for example, if credits are purchased from a forestry project, are there measures in place to ensure permanence of the offset? Furthermore, long-term characteristics of the project should not be neglected. It is important to understand the offset's impact on the surrounding vicinity, and if the given project has mitigation measures to prevent any potential negative consequences associated with the offset. For example, if your credit is issued by a project involving a hydro dam, to what extent are environmental and social consequences managed in the development of the project?

Although the offsetting alternative can be a suitable measure in achieving emission reduction goals, unfortunately, there remain poorly administered projects in the market which lack credibility, and therefore, due diligence on the buyer's side is required. Transparency of how your offsets are administered and the ability to track progress of projects will provide you with more confidence in your decision.

#### **Future outlook**

As climate change continues to impact business, and as the framework around offsets further evolves, purchasing credits as a means of emission reduction will likely continue and become even more widespread. Although characterized by some controversies, offsetting is becoming widely accepted and practiced as a method of emission reductions, and at the same time, gaining more public trust. In fact there are several effectively conducted offset projects that contribute to sustainable development. However, as offsetting is an emerging topic, it requires ongoing research, evaluation, better governing frameworks, disclosure of project results and the continued development of more clear and transparent pricing systems. Onus is often on the buyer to carefully evaluate and research decisions with respect to offsetting to ensure that risks are adequately managed, purchases deliver true emission reductions, and ultimately, that investments in offsets deliver the required emission reduction needs.