Despite this, there is optimism that forestry credits are on a comeback. The COP11 meeting in Montreal in 2005 responded positively to a proposal sponsored by Papua New Guinea and Costa Rica to reopen the discussion on how to accredit avoided deforestation. Recently, the proposal to develop a Voluntary Carbon Standard received substantial resistance when it attempted to marginalize the use of forestry offsets.

Forests provide a natural infrastructure for the planet, regulating the atmosphere, hydrological cycles and much of the biodiversity of life on earth. Forests continue to be lost and degraded, and areas needing re-vegetation or reforestation cannot attract investment. Without price signals for ecosystem services, including carbon sequestration, we are entrenching the status quo of existing economic signals and dooming a significant proportion of our remaining tropical forests in particular to conversion to 'higher uses,' such as palm oil or soybean cultivation.

#### Towards the future

It appears clear that the voluntary carbon market is growing rapidly, and moving to a new level of standardization and legitimacy. If we reach the tipping point where business begins to move in a substantial way to integrate carbon offsets into its internal management objectives and product offerings, the market could increase by orders of magnitude.

As the voluntary and retail carbon markets go mainstream, we hope that forests and land management are one part of the overall portfolio of offsets. If these markets do reach a level of billions of dollars per annum in turnover, it could make a substantial contribution to forest conservation and reforestation.

# An investor's perspective: The challenges ahead for scaling the voluntary carbon market

Alexander Rau

Carbon markets and emissions trading have emerged over the past few years as some of the most promising response options to the growing problem of climate change. While most attention has been focused on the EU ETS and the CDM/ JI project markets under the Kyoto Protocol, voluntary carbon markets have been experiencing rapid growth as well. Proactive corporations are beginning to unlock hidden shareholder value by using project-based emissions reductions as a tool complementing internal measures to achieve self-imposed carbon neutrality commitments, or in offering carbon offset products and services in sectors with few short-term technology solutions.

But as with any nascent market there are a number of critical issues as to how the voluntary carbon market will develop over the next few years. These

will largely determine what role the market will play in the overall effort to mitigate the climate problem. With a continuation of current practices one might expect the market to grow to tens of millions of tons of CO<sub>2</sub>e avoided per year. At this level the voluntary carbon market will be an altruistic attempt at reducing emissions and it will play an important role in educating the public about climate change, but it will not have a meaningful impact on the climate problem.

Conservative estimates from the scientific community suggest that reductions in excess of 500 billion tons of CO<sub>2</sub>e are necessary between now and the middle of the century simply to avoid a doubling of the pre-industrial concentration of carbon in the atmosphere. A well-scaled voluntary carbon market could drive reductions in the order of hundreds of millions of tons per year, and thus have a more meaningful impact on shifting the emissions trajectory. The theoretical potential for volumes exceeding this scale exists because of the ability of voluntary markets to target sectors which are beyond the reach of efficient regulation, such as with mobile or diffuse sources in the transportation or building sectors. Even those sectors which are regulated, typically face incremental caps or reduction targets, leaving the majority of emissions untouched. Furthermore, the consumer-facing nature of many voluntary initiatives allows for steady growth subject more to marketing dynamics and intrinsic demand than political dynamics and the volatility of artificial demand.

But in order for the voluntary market to scale to such a meaningful size there are a number of challenges that must be addressed.

### Uniform quality standard

First is the need for a consistent set of internationally accepted standards determining which projects create reductions that are truly 'real, quantifiable, and permanent', and the procedures by which those reductions are calculated, monitored, and verified. The current proliferation and simultaneous lack of standards in the voluntary market only undermine confidence and increase the transaction costs of corporate and institutional adopters of market-based voluntary initiatives. The recently launched Voluntary Carbon Standard is a productive first step towards a credible, harmonized standard. Much of its strength lies in its adoption of the experience and intelligence built up over the past years in the international project markets – namely, a large set of project-specific methodologies that have been road tested with billions of dollars of capital across hundreds of projects, and a group of experienced verifiers - without the associated bureaucracy.

## Standardized reduction

In order to scale appreciably, the voluntary market also needs to move towards a standardized reduction unit. The fungible nature of the underlying tradable instrument is a key factor contributing to the liquidity of most large financial markets. The current emphasis on linking voluntary carbon credits to particular high-visibility projects may have transitional communication benefits but is not a model that can scale to drive large volumes of emissions reductions or ensure a reliable supply of carbon for voluntary initiatives at realistic costs. Instead, the burden of quality should rest on the standards as discussed above, in which case those reductions verified to have met the standard can effectively be treated as fungible.

#### Robust market infrastructure

Recognizing that carbon credits from greenhouse gas abatement projects are financial assets, the voluntary market must develop comparable infrastructure to that existing in other asset classes but also tailored to the specific attributes of carbon. The principle components are a custodial registry and retirement platform. Procedures must also be in place to ensure that verified reductions are not double counted, counterparty and settlement risks can be effectively managed, and the retirement of credits can be transparently reported. The Bank of New York has recently launched a custodial registry service for voluntary carbon that addresses these concerns and should give confidence to investors and corporate end-users alike that voluntary carbon assets can be managed in the same reliable manner as are other financial asset classes.

## **Return on investment**

Finally, voluntary carbon must prove a sufficiently attractive investment opportunity in its own right in order to mobilize private capital to finance high-quality greenhouse gas abatement projects in situations where compliance instruments cannot be created. The offset model must also be economically attractive to motivate corporate providers of carbon-intensive products and services to offer transitional offset solutions where there are no short-term technological options or regulatory requirements. Ultimately these corporations are providing customers with an 'environmental service', the revenues from which will spur them to seek innovative ways to develop and market low-carbon/offset products and services.

Addressing these issues will help lay the appropriate conditions for the voluntary carbon market to scale meaningfully. The magnitude of the challenge of stabilizing the atmospheric concentrations of carbon at manageable levels of risk makes it clear that all of the viable response options must be adopted, whether regulatory or voluntary, cap-and-trade or technology-based approaches.

A large and robust voluntary market for project-based emissions has a significant transitional role to play in increasing the flow of funds towards low carbon technologies and shifting the global emissions trajectory.