

Carbon Credits: Seeking Reward in the Voluntary Market

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Thailand offers promising opportunities for those who wish to address climate change challenges, reduce greenhouse gas emissions and earn carbon credits. The Royal Thai Government (RTG) has recently shown increasing awareness and eagerness to seize the opportunities offered by the Clean Development Mechanism (CDM) of the Kyoto Protocol. In the last few months, it has been actively developing a series of incentives, such as speeding up the approval process and offering financing facilities and tax exemptions for CDM projects and, most importantly, streamlining the Board of Investment approval process for those projects.

Dr. Piyasvasti Amranand, Minister of Energy, recently announced the approval of another eight CDM projects, bringing to 15 the total number of approved submissions by the Thai Designated National Authority (DNA). He further added that policies have been enacted to encourage factories to support biogas and waste water treatment projects during 2008-11. This support includes partial financial assistance for waste-to-energy, biogas and waste water treatment projects. Biomass – the use of organic wastes as fuel – is also a very promising sector, which ranks high on the RTG's priority list with regard to electricity generation fuels.

In addition, commercial banks in Thailand are also actively financing new projects by offering low interest loans with fixed

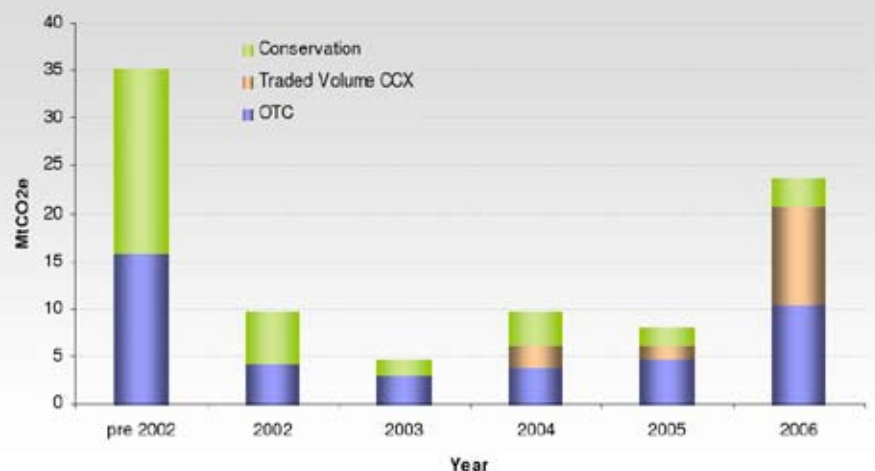


interest rates of 4% per annum.

Nevertheless, these incentives and the development of appropriate mechanisms have come too late for some early green project developers. Facing the regulatory uncertainties surrounding the CDM in Thailand, many green

project developers have opted to forego the potential revenue stream from carbon credits and have borne project risks on their own. In addition, even the green pioneers that chose to apply for CDM approval have experienced initial losses, as the slow approval process delayed CDM registration

Figure 1: Sources of Traded Carbon Credits





by the United Nations and, therefore, the product of CDM emission reductions. Many of these “early movers” have not been rewarded for their initiative.

The Voluntary Carbon Market – A Late Reward

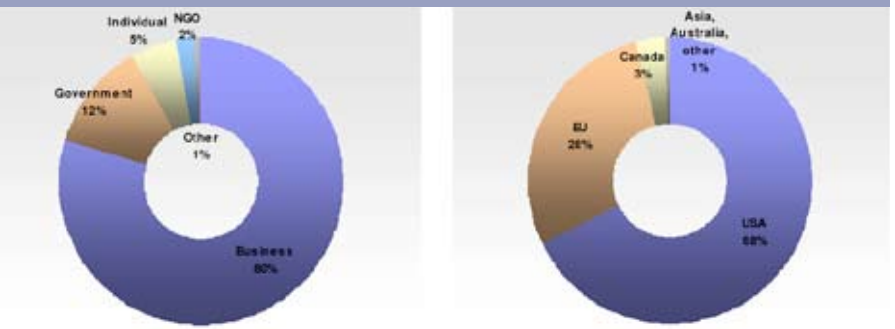
However, relief is at hand with the emergence of the Voluntary Carbon Market and Verified Emission Reductions (VERs), which have created new opportunities for green pioneers to earn carbon credits for past investments.

VERs are emission reduction units awarded to projects outside of the formal market created by the Kyoto Protocol. These reductions have been generated according to defined standards and requirements and are used to voluntarily balance greenhouse gas emissions. (Carbon offsets “neutralize” the emissions produced in one place by avoiding the release of the same quantity of emissions in another place.) Their supply can be either project-based, where carbon credits are purchased from a carbon offset project, or allowance-based, where participants to a “cap-and-trade” regime are free to buy and sell their allowances to other participants.

Carbon credits from VERs can be established retroactively by applying procedures that are similar to the CDM without having to suffer through the time consuming and costly process of obtaining approvals from the RTG and the United Nations. This de-facto flexibility encourages investments in small-scale projects that developers would otherwise not pursue due to the complexity of the CDM bureaucratic process.

Furthermore, it allows the voluntary market to support higher sustainable development benefits. The one downside of the voluntary carbon market is the low values

Figure 2: Over 80% of VERs issued in 2007 were bought by businesses located in the US and the EU



that VERs fetch from purchasers of carbon credits. They are priced substantially below the prices currently being paid for Certified Emission Reductions (CERs).

How big is the Voluntary Carbon Market?

Figure 1 (page 25) shows the number of carbon credits, both CERs and VERs, issued since establishment of the CDM. In 2006, the market for carbon credits exploded to 24 million tonnes from only eight million tonnes in 2005.

At present, voluntary carbon markets are the only source of carbon finance in the forestry sector, i.e. reforestation and afforestation projects. VERs, consequently, are weighted heavily toward those types of projects, with forestry sequestration projects accounting for 36% of all VERs issued and with renewable energy projects and industrial gas projects ranking second and third by size. By region, North America registered the highest number of forestry projects for VER credits, while developing countries were the biggest sources of VERs from renewable energy projects, with Asia providing 55% of the transactions in the renewable field.

Who is buying VERs and why?

The voluntary market for carbon credits involves private and public bodies purchasing carbon offsets for purposes other than meeting

regulatory targets. The top reasons for purchasing VERs are Corporate Social Responsibility and marketing motivations, such as sustainability reporting. Nevertheless, other reasons have been given, such as the decision to “walk the walk” or the anticipation of future carbon tax legislation in countries such as the U.S., Canada or Australia. Some industries, such as American energy companies, wish to demonstrate their willingness to reduce emissions voluntarily and to mitigate the impact of potential future regulation. Indeed, almost 70% of total VERs are purchased by companies and individuals in the U.S.

Figure 2 shows the share of VER purchases by type of institution and location. Businesses have accounted for 80% of all VER purchases in 2007 to date. Almost all of these credits have been purchased by companies in the U.S., the EU and Canada.

Case Study: Hongkong and Shanghai Banking Corporation (HSBC)

In 2006, HSBC decided to become a climate-neutral organization. To do so, it calculated its carbon footprint – the amount of carbon dioxide it emits throughout its operations, such as emissions due to the use of energy to heat and cool its offices, the power consumed by its computer networks and the air travel of its staff. In 2006, HSBC’s carbon footprint was approximately one million tonnes of CO₂.



ENERGY: WHAT'S NEXT?

In order to neutralize its climate footprint, HSBC implemented two measures. First, it identified and applied internal emission reduction measures to lower its footprint through energy efficiency measures, 'green electricity' and offsetting. Second, it purchased VERs to neutralize those emissions that it could not avoid. While the program has cost HSBC a few million dollars to implement, the company feels that this cost is offset by intangible benefits, such as an improved image as a good global citizen, resulting in increased brand loyalty by its customers. In short, HSBC views its efforts at reducing its carbon footprint as creating a bottom line benefit.

VER Market Expansion

The concept of reducing one's carbon footprint is taking hold among many large international companies, leading to an explosive growth of the voluntary carbon

credit market. Other well-known buyers of VERs are Dell Computer, British Petroleum, Pacific Gas & Electric, American Electric Power, Google, Yahoo, Nike, Fortis, FIFA, and Rabobank, plus many other lesser known companies and private consumers.

This market expansion would not have been possible without trust in the underlying commodity, the VER. In the early days of the voluntary carbon market, VERs were developed according to proprietary, private standards that provided varying levels of assurance that the VERs being purchased were both real and unique. The UK media recently presented a number of articles pointing out the "early stage" weaknesses of the VER market. These weaknesses regarded its poor credibility due to the absence of strong and widely recognized standards, the risk of fraud, the funding of carbon reductions that

could have happened anyway or the risk of companies selling the same credits several times over. Furthermore, offsetting has also been perceived as a distraction from taking effective action – which has been widely contradicted. However, the market has evolved rapidly and many of these early concerns have been addressed by means of third party-controlled standards that have been implemented recently to verify the quality of the voluntary credits being sold.

Voluntary Market Standards

Standards are central to ensure the credibility of the voluntary carbon credits. They take different forms – registration, certification, guidelines or labels – and attempt to define a set of criteria that guarantee the emission reductions represent real, quantifiable and permanent emission reductions. They are also characterized by their focus and



geographical reach. Some of them have developed a strong environmental and sustainable development focus so as to support and ensure the quality of the offsets certified by them.

The most prominent and reliable standard in force today is known as the Voluntary Carbon Standard (VCS), which is backed by some of the largest early voluntary market participants, including HSBC. It was developed by the Climate Group, the International Emissions Trading Association and the World Economic Forum on the request of its members.

The VCS is designed to be a global benchmark standard for project-based emission reductions that creates a credible voluntary emission reduction credit: it should be real, measurable, permanent, additional and independently verified. It is managed by its own oversight body and is based in large part on the technical procedures developed under the CDM, but without the red tape. Its requirements are thus less rigid than those of the CDM and its transaction costs are much lower.

The price of VERs varies as a function of demand and supply: demand is driven by the confidence that the underlying VER standard inspires. The purchase of VERs should strengthen the reputation of the purchasers in the eyes of the targeted audience. This is why another standard – the Gold Standard for VER – which is endorsed by green organizations around the world commands the highest price within the world of VER standards. The Gold Standard duplicates principles of the CDM process and includes the CDM's original sustainable

development criteria. Other popular standards are the Climate Community and Biodiversity Standard, which was jointly developed by NGOs and private companies and targeted towards forestry projects, the Voluntary Carbon Standard and labeling initiatives such as ClimateCool or CarbonNeutral.

Trading VERs

VERs are largely traded “over the counter.” However, several fragmented carbon markets exist that trade credits which are either project-based or allowance-based. These markets are similar in their functions to international currency markets. An example of such markets is the Chicago Climate Exchange, which provides an exchange platform for VERs that meet its requirements. Although VERs are traded at prices below CERs, their income can be substantial and a major argument to go ahead with projects.

Over the past 12 months, South Pole Carbon Asset Management, Ltd. has been assisting its clients around the world to obtain VERs through the voluntary market, in particular a number of green pioneers who did not gain early access to CERs. For example, a medium-sized Thai client invested in a biogas company in 2004, a time when CDM rules were still very unclear. The client knew about CDM but saw no way to get approval under this mechanism.

Nevertheless, it chose to go ahead with the project at its own risk – which included uncertainties in production of biogas, fuel replacement issues and fuel price development concerns. In fact, the risks were seen as so severe that the factory supplying the wastewater did not

want to use its own money, but instead operated the biogas production on a BOT (Build-Operate-Transfer) basis.

However, the supplier of the gas production plant took the risk and invested his own money. VER sales are an unexpected recompense for them, for having addressed these challenges and given support to the development of the Thai biogas market.

A similar story happened to another Thai company that decided to switch to green fuel to run its manufacturing plant. It invested in a boiler for the combustion of biomass (such as rice husk, fruit wastes and stems) therefore avoiding the use of fuel oil and substantially limiting its carbon emissions. Because this investment happened in the early stages of the Kyoto Protocol implementation, when Thailand had not yet set up its approval procedure, it could not apply for CERs. Again, VERs came here as a late reward for an early action.

VERs and voluntary actions are and will remain supplemental solutions: the planet needs binding targets and regulations to solve the climate change challenge. Nevertheless, with looming political uncertainties on the future of CERs, VERs are the fallback currency for climate change emission credits.

Finally, industry worldwide should be conscious that, even in the absence of a political agreement, there is value in reducing emissions and facing up the sustainability challenge. ■

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