



## Carbon financing beyond the CDM

**T**he Clean Development Mechanism (CDM) managed by the UN to receive funding for conducting greenhouse gas (GHG) reduction projects and activities has been one of the most popular methods of carbon financing for businesses in developing countries including many in APO members. This article analyzes the current environment surrounding the CDM in the aftermath of the recent UN climate talks and introduces domestic and bilateral carbon finance schemes being developed in Asia.

### CDM: achievements and challenges

The CDM allows owners of GHG emission reduction projects in developing countries to earn carbon offset credits or certified emission reductions (CERs), which can be traded and sold to governments and companies in industrialized countries to meet emission reduction targets. The consideration paid to CDM project owners in exchange for CERs issued supplements project cash flow and thereby incentivizes the use of low-carbon technology and sustainable development.

Since the registration of the first CDM project in 2004, over 6,600 projects in 85 developing nations had been registered and nearly 1.3 billion tons of offset credits issued as of March 2013. Among the top 10 CDM project hosts, six are APO member economies (India, Indonesia, the ROK, Malaysia, Thailand, and Vietnam, with the Philippines holding 11th place). These countries combined have hosted more than 1,900 projects and reduced 300 million tons of GHG, reflecting the strong potential for low-carbon development in the region. Although there are no official figures, many project owners are local mid-sized companies that do not necessarily have extensive international exposure. Popular project types in the region are renewable energy (wind, hydro, biomass, solar PV, etc.), methane gas reduction (wastewater treatment, composting, animal waste treatment, etc.), energy efficiency in industries, waste gas/heat recovery, and energy efficiency in households.

Despite these accomplishments, there are two key imperfections from the CDM host countries' perspective. 1) It sometimes seems as if "CDM" stands for "complicated development mechanism." It is common for CDM project owners to spend three or even more than five years from project inception to first issuance of CERs, due to complex CDM rules and procedures that are exacerbated by the unpredictability of UN rulings. 2) The failure to provide initial investment support can be fatal. Additional financing is generated from CER sales revenue, which is usually paid after CER delivery, no less than several years after the initial development phase. In other words, project developers cannot count on a CDM project as a reliable source of funding when finance is most needed, obliging them to risk adopting a low-carbon technology that may be novel in their country.

### Post-2013 CDM

The UN Climate Change Conference that took place in Doha, Qatar, 26 November–8 December 2012, unfortunately could not agree on any immediate measure to revive the dwindling CDM system. Delegates from over 190

nations extended the legal obligation of industrialized countries to reduce emissions under the Kyoto Protocol for another eight years until 2020. Yet the emission reduction target is applied to only 35 countries, covering only 15% of global emissions. Canada, Japan, New Zealand, and Russia, which previously had targets, opted out of the protocol and no longer have legally binding targets from 2013; nor does the USA, which did not even ratify the treaty. It was agreed to impose certain restrictions on the transfer and acquisition of CERs generated during the 2013–2020 period against nations without legal targets, effectively barring major investors such as Japan and New Zealand from the market, further limiting demand.

Even the EU's regional emissions trading system, which has been the biggest buyer of CERs, has restricted the use of new CDM projects from 2013 to only those that originate from least developed countries, excluding projects conducted in most APO member economies with solid CDM track records. In addition, the CER price crash came as a blow. With the advent of the European financial crisis, CERs that used to be traded in the €10–15 range fell below €1 in October 2012, making it almost impossible for project owners to rely on the CDM for extra funding.

Without structural reform allowing more predictability in the registration and issuance procedures, together with the restoration of demand, the CDM is currently not a reliable incentive to go low carbon, particularly for SMEs that have tight cash flows and limited access to credit.

### Regional and bilateral schemes

As the centralized global GHG emission control system under the UN loses momentum, regional and bilateral carbon finance/emissions trading schemes are emerging in Asia.

**Indonesia:** The Nusantara Carbon Scheme (NCS) is an emission reduction initiative under which GHG reduction projects carried out in Indonesia will be issued with carbon credits that can be traded and used to offset emissions domestically. The NCS is still under development and plans to allow seven project types including renewable energy, energy efficiency, and industrial process enhancement.

**Japan:** The Joint Crediting Mechanism (JCM)/Bilateral Offset Credit Mechanism (BOCM) is promoted by the Japanese government. A partner country signs an agreement with Japan to host a JCM/BOCM project, mainly using low-carbon Japanese technology. In return, the GHG emission reductions achieved are used to meet Japan's target. Japan signed JCM agreements with Mongolia and Bangladesh in the first quarter of 2013 and is said to be in advanced talks with Indonesia, Lao PDR, and Vietnam. Consultation with other Asian and African nations, such as Cambodia, India, and Thailand, is underway. Nearly 200 feasibility studies in 30 countries have been performed, with the emphasis on energy efficiency in manufacturing, buildings, and power generation. Pilot projects are expected to begin in 2013.

**Republic of Korea:** A mandatory cap-and-trade system covering nearly 500 major companies is expected to start in 2015. The ROK's target is to reduce GHG emissions to 30% below the business-as-usual levels by 2020.

**Thailand:** Thailand plans to launch the Thailand Voluntary Emission Reduction Program (T-VER) and Thailand Voluntary Emission Trading Scheme (TVETS) in 2013 and 2014, respectively. T-VER is a project-based mechanism where project owners will earn T-VER credits by conducting GHG-reducing projects in energy efficiency, alternative energy, renewable energy, solid waste management, transportation management, forestry, and agriculture. Pilot projects to improve energy efficiency in the building sector have been conducted together with the development of T-VER general guidelines and methodologies. TVETS is a domestic cap-and-trade system in which firms participate voluntarily without identifying target industries. Several years were spent studying the carbon market rules and consulting with major carbon-emitting companies.

**Others:** Among APO member economies, the Republic of China and Vietnam plan to introduce domestic carbon emission trading schemes. Other notable schemes in Asia are regional emission trading systems targeting five cities and two provinces in PR China which expects to start an initial phase in 2013.

While many economies envision adopting mandatory cap-and-trade systems, the JCM/BOCM, T-VER, and NCS are unique in being project-based, voluntary mechanisms that allow the direct flow of support to businesses/projects trying to save energy costs and reduce carbon emissions through low-carbon technology. Although these new systems have yet to devise ways to create solid demand and set prices for credits, they will be important in the creation of a low-carbon society, and constructive development of decentralized schemes is eagerly awaited. ☺



*Ayato Kurokawa is a consultant in the Clean Energy Finance Division (CEF), Mitsubishi UFJ Morgan Stanley Securities, a leading carbon credit consultancy specializing in the CDM and JCM/BOCM. He has an investment banking background and since joining the CEF has been involved in CDM consultancy and carbon credit transaction advisory, as well as writing carbon finance-related reports.*