

CLEAN DEVELOPMENT MECHANISM (CDM) – AN OPPORTUNITY OF REVENUE GENERATION

Dr. Kavitha Jayakumar*

Dr. Veerta Tania**

Abstract:

Carbon trading, sometimes called emission trading, is a market-based tool to limit Greenhouse Gases (GHGs). Nowadays in the cities and even towns of India, a new business has come into picture, which though related to trading, is a departure from the usual commodity or stock trading. It is the trading of polluting gases, which is also known as carbon trading. It is basically a commercial activity that aims at protecting the earth from the harmful emission of gases from industries. The emergence of this opportunity of revenue generation by taking up structured Clean Development Mechanism (CDM) projects has brought about a novel dimension to accounting and taxation. The present article focuses on the contours of Kyoto Protocol, highlighting the financial and accounting challenges being faced by companies in a developing country like India, where it is an emerging field.

Keywords: Clean development mechanism, Greenhouse gases, Carbon credit, Certified emission reduction, Kyoto protocol

* Associate professor, Department of Commerce, Christ University, Bangalore.

** Assistant professor, Department of Commerce, Christ University, Bangalore.

Introduction

The Kyoto Protocol, which came into force and became legally binding on 15th February 2005 when Russia ratified the treaty, demands a 5.2% cut in greenhouse gas emissions from the industrialized world as a whole by 2012. India, along with China and Brazil, has emerged as one of its largest beneficiaries in terms of new source of revenue. This is due to Clean Development Mechanism (CDM), which is perhaps most exciting feature of the total scheme which allows 'Annex 1 countries' (A total of 36 countries are listed in Annex 1) to meet their emission reduction targets by paying for greenhouse gas emission reduction in non-Annex 1 (developing) countries.

Most Annex 1 countries have legally binding greenhouse gas emission reduction requirements under the Kyoto Protocol. These countries, instead of reducing emissions of their own companies, can 'buy' emission reductions in non-Annex 1 countries. Article 12 of the Kyoto Protocol states: "The purpose of the Clean Development Mechanism shall be to assist Parties not included in Annex 1 in achieving sustainable development and in contributing to the ultimate objective of the convention, and to assist Parties included in Annex 1 in achieving compliance with their quantified emission limitation and reduction commitments."

India, being a non-Annex 1 country, is naturally one of largest beneficiaries of the Kyoto Protocol. Studies by Crisil and CII estimate the value of the Indian CDM market at more than a billion dollars per annum.

Trading of Carbon Credits: Trading of carbon credits happens in the form of CERs or Certified Emissions Reductions. CERs are in the form of certificates, just like a stock. A CER is given by the CDM Executive Board to projects in developing countries to certify that they have reduced greenhouse gas emissions by one ton of carbon dioxide per year. For example, if a project generates energy using wind power instead of burning coal, and in the process saves (say) 25 tons of carbon dioxide per year, it can claim 25 CERs (One CER is equivalent to one ton of carbon dioxide reduced).

CDM Executive Board: A board comprising 10 members supervises the operation of CDM. The Board has the final say on whether a project is approved or not, and lays out procedures and guidelines for CDM.

Verification:

A CDM project is monitored or 'verified' after the project has been approved or registered by the CDM Executive Board. After the project is registered by the Executive Board, the Designated Operational Entity (DOE) periodically checks (usually once a year) whether emission reduction has actually taken place or not. It is only after verification by the DOE that CERs are delivered. There are presently 11 DOEs globally, out of which five are represented in India.

Emergence of CER Credits:

In March 2006, the United Nations Framework Convention on Climate Change (UNFCCC) CDM Registry Administrator, for the first time, forwarded CERs to the holding account of a project participant representing a milestone in the implementation of the Kyoto Protocol's CDM. The forwarding of CERs to the holding accounts of project participants provides them with the end product of their efforts to reduce emissions of greenhouse gases in developing countries. These CERs have a ready market, where transactions happen on an arm's-length basis and price quoted fluctuate as per the situation of demand and supply, and also according to the negotiation skills of the two parties.

Financial Accounting Issues of CDM Credits in India

India is one of the major players in the global market on the supply side of CERs. Indian companies have started getting credit of CERs and some of them have also entered into sale arrangements with buyers in the international market. As this is a new concept, it has given rise to interesting financial accounting dimensions. Issues involved are (i) how to account for expenditure on CDM projects, (ii) whether or not to account for self-generated CERs held with registry, (iii) if credits are to be accounted, at what point of time these should be recognized in books of accounts and at what value, and (iv) how to account for sale consideration of CERs and its disclosure in accounts and notes.

Answers to these questions are found within existing pronouncements of ICAI as well as Schedule VI requirements. Taxation issues will naturally follow.

CDM is a Journey, not a Destination:

Developing a CDM project should not be viewed as a commercial transaction. It is not a huge business but simply a profitable way of making business environmentally conscious. A CDM project cannot be undertaken only on the basis of generation of expected CER points and its market value. To be sustainable, the project must be financially sound by itself. There are several benefits of undertaking CDM projects, starting from reduced energy bills by using energy-efficient equipment, additional depreciation on capital equipment installed for CDM projects, reduced regulatory oversight, image of a responsible corporate citizen, advance preparation for such time when India will be given targets to reduce greenhouse gas emissions on its own account, and so on. The availability of a mechanism of recognition of carbon credits and its marketability provides additional revenues, and makes businesses more competitive in the global market. As of now, there are no separate Indian accounting standards to measure income and expenditure from carbon reducing projects. The existing standards can well account for new capital investments, its depreciation, recurring costs and sale proceeds of CERs. Some experts feel that CDM projects should be accounted for as a separate segment under AS-17 (segment reporting). This line of thought does not appear practical if the concept of 'journey, not destination' is properly followed. A CDM project cannot be a profit center or cost center in itself. In a multi-segment industry, any CDM project can be identified with its parent segment.

CERs are Goods:

CER credits are considered goods, as they have all the attributes thereof. As held by the apex court in *TATA Consultancy Services v. State of Andhra Pradesh [2004] 141 Taxman 132/ 271 ITR 401*, while dealing with issue of levy of sales tax on computer software, "a 'goods' may be a tangible property or an intangible one. It would become goods provided it has the attributes thereof having regard to (a) its utility; (b) capability of being bought and sold; and (c) capability of being transmitted, transferred, delivered, stored and possessed." This approach was reiterated by apex court in *BSNL v. UOI [2006] 152 Taxman 135/ 282 ITR 273/ 145 STC 1*.

CER Sale is Other Income, Not Turnover:

We can safely conclude from the discussion above that sale proceeds of CER credits cannot be included in Turnover. Section 43A(11) of the Companies Act, 1956, defines 'Turnover' as

“the aggregate value of the realization made from the sale, supply or distribution of goods or on account of services rendered, or both”. Part II of Schedule VI to the Companies Act, 1956, requires a separate disclosure of “profits or losses in respect of transactions of a kind, not usually undertaken by the company or undertaken in circumstances of an exceptional or non-recurring nature, if material in amount”. Though CERs are goods, their sale is undertaken, if not in exceptional circumstances, certainly on non-recurring basis. We have already seen that a CDM project cannot be a profit/cost center in itself, and, therefore, it is neither possible nor desirable to attempt to work out separate profit or loss of any CDM project, with an accuracy expected from accountants. A combined reading of Section 43A and Schedule VI of the Companies Act clearly establishes that sale proceeds of CERs should be disclosed as a line item in schedule of other income, if amount is material.

Revenue Recognition on Sale of CER Credits:

As we have already concluded that CER credits are goods, their sales proceeds have to be recognized in financial accounts as per para.11 of the Accounting Standard 9 (‘revenue recognition’). The conditions of para.11 are self-explanatory, and are reproduced below: “11. In a transaction involving the sale of goods, performance should be regarded as being achieved when the following conditions have been fulfilled:

- (i) the seller of goods has transferred to the buyer the property in the goods for a price or all significant risks and rewards of ownership have been transferred to the buyer and the seller retains no effective control of the goods transferred to a degree usually associated with ownership; and
- (ii) (ii) no significant uncertainty exists regarding the amount of the consideration that will be derived from the sale of the goods.”

Self-generated CERs Held with Registry:

Self-generated CERs held with registry cannot be included in Inventories as defined in Accounting Standard-2, as they are not held for sale in the ordinary course of business. On the other hand, such credits meet all the criteria of ‘Intangible Asset’ as defined in Accounting Standard-26 i.e. (i) identifiability, (ii) control over a resource, and (iii) expectation of future economic benefits flowing to the enterprise. Para 19 to 23 of Accounting Standard-26 deal with

recognition and initial measurement of an intangible asset. Para 20, which is the operating portion of this section, provides that an intangible asset should be recognized if, and only if:

- (a) It is probable that future economic benefits attributable to the asset will flow to the enterprise; and
- (b) The cost of asset can be measured reliably.

Since we have already demonstrated that availability of CER credits is only an additional benefit of a CDM project, it would be impossible to measure the cost of self-generated CER assets reliably. Thus it can be concluded that though self-generated CERs held with registry are Assets (Intangible), they cannot be recognized in Accounts due to specific requirements of Accounting Standard-26.

Accounting Carbon Credits as per AS-12:

Some experts, having admitted that there are presently no guidelines/standards for accounting of Carbon Credits, have suggested that they be accounted as Government Grant. Their logic is based on the definition of the term 'Government' prescribed in para 3.1 of AS-12, which reads: "Government refers to government, government agencies and similar bodies, whether local, national or international." The logic forwarded appears to be misplaced, as in case of financial transactions arising out of carbon credit, monetary consideration will not flow from any government or government agency. In total gambit, UNFCCC CDM registry acts as a Demat banker recognizing CER credits and keeping an account of it. There is no grant at all from any agency. Further, as soon as Carbon Credits are accounted as Government Grants, Accounting Standard-9 'revenue recognition' will cease to operate, leading to other accounting and taxation complications.

Tax Planning

CER credits are indeed intangible assets, held with registry. CER credits acquired from other parties for the purposes of trading are recognized in the books at the cost of acquisition, whereas self-generated CER credits are not reflected in financial accounts. As issues for accounting of CER credits will appear for the first time in Financial Year 2006-07, it's important to disclose the accounting policy adopted for this purpose. It would be appropriate to disclose units of CER held

with registry in notesbi-furcating between purchased and self-generated.As CERs are capital assets, tax liability should be admittedunder the head Capital Gain, and claim for concessional rate oftaxation should also be made if credit is held for more than 36months immediately preceding the date of transfer. This givesan opportunity to take a decision about timings of sale of suchcredits, keeping a balance between cash flow needs, interestfactor and difference in rate of tax between long-term andshort-term holdings. As there would be no cost of acquisitionfor self-generated CER credits, section 55(2) of the Income TaxAct will come into operation, and total sale consideration willbe liable for Capital Gains Tax (long term/short term) accordingto the period of holding.In Indian circumstances, if sale of CER credits happen tooverseas buyers, of the property held overseas, such sale,though sale of ‘goods’, will not attract any sales tax.

Conclusion

It has been believed that GHGs will be slashed to a great extent and this novel mechanism will enable a host of developing countries to become self-sufficient in energy production resulting in revenue generation, leading thereby to improved living standards to their people. India will hopefully benefit from this mechanism and become even more environment friendly for its citizen as it was the main behind the development of this mechanism of carbon trading.

References

- Accounting for carbon, IETA
- Bothra Nidhi, “Carbon Credits – Unravelling Regulatory, Taxation & Accounting issues”.
- [http://carbonukcredit.blogspot.com/carbon accounting and disclosure in India](http://carbonukcredit.blogspot.com/carbon%20accounting%20and%20disclosure%20in%20India), may 17, 2011
- [http://carbonukcredit.blogspot.com/may 6, 2011](http://carbonukcredit.blogspot.com/may%206%202011)
- http://en.wikipedia.org/wiki/Carbon_credit
- [http://siteresources.worldbank.org/INTCARBONFINANCE/Resources/State and Trends](http://siteresources.worldbank.org/INTCARBONFINANCE/Resources/State_and_Trends)
- [2012 Web Optimized 19035_Cvr&Txt_LR.pdf](#)
- <http://sivanesh.com/?p=294>
- [http://www.articles.timesofindia.indiatimes.com-Accounting norms on C-credit from July](http://www.articles.timesofindia.indiatimes.com-Accounting%20norms%20on%20C-credit%20from%20July), Namrata Singh, TNN Jun 13, 2009,
- <http://www.deloitte.com/energysolutions>

- <http://www.epcandi.com/Default.aspx>, Shailendra Sharma, sept 2011
- <http://www.globaladvisors.in/carboncredits.htm>
- <http://www.ijrcm.org.in>
- http://www.itatonline.org/info/?dl_id=791
- <http://www.scribd.com> (Presentation by J K Dadoo, Secretary (Environment)-cum-Chairman (DPCC), Govt. of NCT of Delhi, CARBON CREDITS AND KYOTO
- <http://www.wikipedia.com>
- Kerr Stephen G., Bradley University, USA, “Accounting Policy And Carbon Credits”, Journal of Business & Economics Research – August 2008 Volume 6.
- Murray E.V, “The emerging market for carbon trading: a new business opportunity for banks”, Cab calling oct-dec, 2007.
- PROTOCOL, 16th October 2008)
- The Chartered Accountant October 2006

