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JOURNAL AND OTHER ARTICLES

- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

CONFERENCE PAPERS

- Garg, Sambhav (2011): "Business Ethics" Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19-22 June.

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FINANCIAL REPORTING FRAMEWORK FOR CARBON CREDIT ACCOUNTING

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ABSTRACT

A famous ecologist says that 20 billion tonnes of carbon dioxide is generated every year by humanity that is absorbed by Nature. This tolerance of Nature could be reversed, if the carbon dioxide levels increase unabatedly. While this has become quintessential to reduce the emission levels, an entirely new industry has emerged having great potential and opportunities for the investors. This Global warming issue is a serious concern and Corporate are projecting to take initiatives by fulfilling their social responsibility and are making profits in the offing. It has become an emblem of bearing a meritorious entity showing responsible behavior towards the environment. Environmental awareness within the management community is reflected in frequent coverage of sustainability and environmental responsibility in management-oriented publications. These social developments create a need for financial information. Pundits are predicting that global carbon markets could well exceed the value of global oil markets in just a few years and the impact of emission allowances on the operation of almost every MNC is certain to be significant. As entities actually emit carbon, they incur a future obligation to relinquish an allowance to a regulator or incur penalties and under US GAAP and IFRS are a liability, which needs to be periodically measured and recorded. Therefore, these emissions allowances present challenges to accounting both for their value and for liabilities associated with their use. In spite of the growing importance of the emission allowances, there is no clarity on how they will be treated in financial accounting and reporting. The specific purpose of this paper is to examine how Carbon Credit accounting fits into the financial reporting framework.

KEYWORDS

Accounting issues, Carbon Credit, GHG, Taxation.

INTRODUCTION

Increase in carbon dioxide emissions are a result of either nature (e.g. volcanic eruptions) or the actions of man (e.g. burning fossil fuels), and thus, could be 'mopped up' only by the increased capacity of sinks, through growth of forests, or increases in water bodies (and the plankton within) in which carbon dioxide could be stored or dissolved. This imbalance calls for greater attention and precautionary measures to be put in place. These Exhausting fossil fuels are a major cause of Industrial Greenhouse Gas (GHG¹) emissions.

To address the issue of global warming, the United Nations Framework Convention on Climate Change (UNFCCC) was adopted in 1992, with the objective of limiting the concentration of Green House Gases (GHGs) in the atmosphere. The response to this GHG emission has been the *Kyoto Protocol*, which came into force and became legally binding on 15 February 2005 when Russia ratified the treaty. The treaty demands a 5.2% cut in greenhouse gas emissions from the industrialized world as a whole by 2012. Under this over, 170 countries have agreed to strive to decrease CARBON DIOXIDE emissions, accounting for an estimated 55 percent of global Greenhouse gas emissions. Subsequently, the concept of carbon credit² came into existence because of increasing awareness for controlling emissions. The USA and Australia are among the countries that have not yet ratified the Kyoto Protocol. India and China, have ratified the protocol, but are not required to reduce carbon dioxide emissions. *India, along with China and Brazil, has emerged as one of its largest beneficiaries in terms of new source of revenue.*

The Kyoto Protocol provides for three mechanisms for countries with quantified emission limitation and reduction commitments to acquire greenhouse gas reduction credits that are Joint Implementation (JI)³, Clean Development Mechanism (CDM)⁴, and International Emission Trading (IET)⁵. These mechanisms serve the objective of both the developed countries with emission reduction targets, who are the buyers of carbon credits as well as of the developing and least developed countries with no emission targets (at present), who are the sellers/suppliers of carbon credits. The non-polluting companies from less developed countries can sell the quantity of carbon dioxide emissions they have reduced (carbon credits) and earn extra money in the process. *This mechanism of buying and selling carbon credits is known as carbon trading.*

CARBON CREDITS SCENARIO IN INDIA AND AS A WHOLE

India has generated approximately 30 Million carbon credits and approximately 140 million in run, the second highest transacted volumes in the world. India's carbon market is growing faster than even information technology, bio technology and BPO sectors as 850 projects with a huge investment of Rs 650,000 million are in pipeline. As per the Prime Minister's Council on Climate Change, the revenue from 200 projects is estimated at Rs. 97 billion till 2012.

India has been able to register approximately 350 projects spread across various sectors with major dominance of renewable energy, energy efficiency and biomass energy projects. Carbon, like any other commodity, has begun to be traded on India's Multi Commodity Exchange and has become first exchange in Asia to trade carbon credits.

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.

Most countries are considering 'managing' their carbon dioxide targets through the regulation of businesses and individuals in their countries in three ways:

- **By Taxation**, the government imposes a tax on carbon dioxide emissions. The advantage could be that it is immediately implemental, transparent and tax regimes could be harmonized around the globe, perhaps under international oversight. The disadvantage is that business may absorb or pass on the tax to consumers, and not cut emissions.
- **By allocating carbon credits** or 'permits' to entities or individuals for the emission of a certain quantity of greenhouse gases in a particular period (i.e. a permitted quota). These permits may be given away free, sold at a predetermined price or auctioned. This is a carbon emission 'rationing' or a cap and trade system.
- **By approving certain organizations** as being able to issue legitimate carbon credits (called 'abatement certificates') by undertaking work to either increase the capacity of sinks, or reduce carbon dioxide emissions from sources. Known as a *cap and trade system*⁶, greenhouse performance levels are set whereby those that can deliver a particular product with emissions below the benchmark can earn (create) abatement certificates.

OBJECTIVE AND SCOPE OF THE STUDY

The development of carbon markets worldwide has created a host of challenges for companies - and of these challenges, *Accounting* is perhaps one of the least understood. As carbon markets is evolving and incorporating new elements, additional accounting challenges will continue to emerge.

Our scope of study will consider the following:

1. Carbon Credit Mechanism
2. Accounting issues – Exposure Draft on Guidance Note on accounting for carbon credits by ICAI

CARBON CREDIT ACCOUNTING- A NEW CHALLENGE

Accounting plays a central role in determining what matters. Until it is measured and reported on in financial statements an economic development will rarely receive much attention.

1. CARBON CREDIT MECHANISM

Carbon credits are certificates issued to countries that reduce their GHG emission that causes global warming. *Carbon credits are measured and traded in units of Certified Emission Reductions (CER)*. Each CER is equivalent to one tonne of carbon dioxide reduction. 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 tonne of carbon dioxide per year. Under IET (International Emissions Trading) mechanism, countries can trade in the international carbon credit market. Countries with surplus credits can sell the same to countries with quantified emission limitation and reduction commitments under the Kyoto Protocol. Developed countries that have exceeded the levels can either cut down emissions, or borrow or buy carbon credits from developing countries.

Typically, carbon credits are purchased either through CER purchase agreements, trading on the stock exchanges or even by bidding for tenders floated by several governments. Looking at the huge demand for carbon credits in the developed nations, the developing nations have geared up for tapping the market.

The emergence of the opportunity of revenue generation by taking up structured Clean Development Mechanism (CDM) projects has given a new dimension to *Accounting and Taxation*. 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."

An entity desirous of undertaking a CDM project activity, generate carbon credits

There from, and earn revenue needs to go through several stages, described as below:

- *Registration/Accreditation of the project*
 - *Project Design Document (PDD)*
 - *Approval from Host country/DNA (Designated national authority)*
 - *Validated by DOE (Designated Operational Entity)*
 - *Registration (If within 8 weeks no request for review of the proposed CDM project is received by UNFCCC, the project is automatically registered.)*
- *Monitoring, Verification and Issuance of CERs*
- *Sale/Trade (The CERs obtained by the entity may be sold to those who need it).*

For example, if a project generates energy using wind power instead of burning coal, and in the process saves (say) 25 tonnes of carbon dioxide per year, it can claim 25 CERs (One CER is equivalent to one 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.

2. ACCOUNTING ISSUES – EXPOSURE DRAFT ON GUIDANCE NOTE ON ACCOUNTING FOR CARBON CREDITS BY ICAI

Generation and trading in carbon credits in India has gained a lot of momentum, but there remains lot of ambiguity for the accounting treatment – questions on accounting for expenditure on the CDM projects, accounting for self-generated CERs, accounting for sale consideration and so on. This could be resolved in the prevailing accounting standards as there are no separate accounting standards prescribed for accounting, measurement and disclosures of carbon credits. Some of the countries suggest recognition of carbon credits as government grant. However, this approach would be inappropriate as government grants are received by an organization on concessional or free of cost, wherein government would grant or allocate some concessional benefit to an entity. In case of CERs, it is not any benefit that is provided by government; it is an incentive provided to entities for conservation of the environment.

To resolve accounting issues, International Accounting Standards Board (IASB) had issued an interpretation **IFRIC 3** on Emission Rights but later withdrew the same, continuing to debate on the appropriate treatment for CERs. The Institute of Chartered Accountants of India (ICAI) has issued an Exposure Draft of the Guidance Note on Accounting for Self-generated Certified Emission Reductions in 2009 enumerating suggested accounting principles for CERs generated by an entity. The exposure draft provides for accounting principles relating to recognition, measurement and disclosures of CERs generated by CDM. Accounting treatment for CERs taking in consideration the exposure draft issued by ICAI is proposed in the following manner:

1. **Expenses in the research and development phase:** While undertaking the project for reduction in carbon emission, cost incurred on development should be accounted for as enumerated in AS 26 for intangible assets. Cost incurred on receiving CER is measured with certainty at the time of incurring those expenses whereas revenue recognition will happen only at the time of sale of CERs. So there is a mismatch in accounting for expenses and revenue
2. **CERs held with the CDM Executive Board** – The exposure draft on guidance note on accounting for carbon credits states that when the CERs are in the approval stage, these should be accounted for as per the provisions of AS 29 as Contingent Assets, and once approved, should be recorded in the books as an intangible asset.
3. **CERs held for sale** – In case an enterprise possess CER to be traded in the ordinary course of business, i.e., the enterprise would hold the asset as 'available for sale', the same should be accounted for as Inventory under provisions of AS 2.

Further, intent of the entity would determine whether these credits should be recorded as intangible assets or as inventory. There are further questions on CERs cost at which CERs be recorded in the books, as huge amount of expenditure is incurred in terms of initializing the project, emission of reduction, approval and acceptance of CERs, etc.

Despite several unresolved issues, carbon credits have emerged as a sought commodity for trade and will continue to interest the country for some time to come. India has around 35 million annual CERs under way from registered projects, of which, a large pool remains unsold.

3. TAXATION OF CARBON CREDITS

Income from sale of CERs should be accounted for under the head '*Business and Profession*'. However, in case of sale of Intangible, it would be taxable under the head '*Capital Gains*' though most companies in India are recording earnings from carbon credit trading as Income from 'Other Sources' currently. Claims for concessional rate of taxation should also be made if credit is held for more than 36 months immediately preceding the date of transfer. This gives an opportunity to take a decision about timings of sale of such credits, keeping a balance between cash flow needs, interest factor and difference in rate of tax between long-term and short-term holdings. As there would be no cost of acquisition for self-generated CER credits, section 55(2) of the Income Tax Act will come into operation, and total sale consideration will be liable for Capital Gains Tax (long term/short term) according to the period of holding

Trading in CER is carried out either in spot market or in futures. Service tax could be applicable on account of dealing in CERs on the exchange platform, and in case of contracts resulting in delivery, VAT could be applicable. Typically, carbon credits in India are sold to overseas buyers; hence, there would be no VAT applicable on these goods. Thus, sale of CERs to overseas buyers should qualify as exports. However, there is no explicit mention made in this regard by the revenue authorities. Further, in light of India undergoing a revolutionary amendment from regulatory perspective, like the proposed Direct Taxes Code, 2010, Goods and Service Tax, IFRS, etc., the position and treatment of carbon credits would have to be commented accordingly.

CER credits acquired from other parties for the purposes of trading are recognised in the books at the cost of acquisition, whereas self-generated CER credits are not reflected in financial accounts. In Indian circumstances, if sale of CER credits happen to overseas buyers, of the property held overseas, such sale, though sale of 'goods', will not attract any sales tax.

CONCLUSION AND RECOMMENDATIONS

There is currently no authoritative accounting literature from either the Financial Accounting Standards Board (FASB) or the International Accounting Standards Board (IASB) on accounting for emission allowances, although both U.S. and international accounting standard setters have previously attempted to address the issue:

- In 2003, the Emerging Issues Task Force (EITF) contemplated emission accounting questions in EITF 03-14, but the item was removed from its agenda in short order.
- In 2004, the International Financial Reporting Interpretations Committee (IFRIC) issued IFRIC 3 to address emission accounting issues, but the interpretation was withdrawn six months later in part due to criticism about potential income matching issues.

The FASB and IASB are currently working on a joint project to address emissions accounting, but both boards have been discussing the project since 2007 and final guidance is not expected until 2011. In the meantime, there are numerous companies currently impacted by carbon emissions (and likely many more in the near future) that have developed their own accounting policies in the absence of explicit authoritative guidance. Carbon accounting (also called GHG accounting) does assess the carbon footprint to help organizations adopt strategies aimed at fighting climate change. As with financial accounting and reporting, generally accepted carbon accounting principles are intended to underpin and guide carbon accounting and reporting to ensure that the reported information represents a faithful, true, and fair account of a company's carbon emissions.

There is still long way to go for Indian businesses on the path of carbon accounting and disclosures. Even in the top 200 firms in India (by market capitalization), the response rate in last few years has steadily increased and reached 20%, a rather dismal performance compared to developed markets. There are a few sectors like the software and services which are clear leaders in being carbon-aware, accounting carbon emissions from their emissions, taking efforts in reducing it and communicating it to the stakeholders.

Attention to accounting policy regarding carbon credits can be the professions positive contribution the societal discourse about environmental degradation!

REFERENCES

1. Accounting for carbon, IETA
2. Bothra Nidhi, "Carbon Credits – Unravelling Regulatory, Taxation & Accounting Issues".
3. [http://carbonukcredit.blogspot.com/carbon accounting and disclosure in India](http://carbonukcredit.blogspot.com/carbon-accounting-and-disclosure-in-india), may 17, 2011
4. [http://carbonukcredit.blogspot.com/may 6, 2011](http://carbonukcredit.blogspot.com/may-6-2011)
5. [http://www.articles.timesofindia.indiatimes.com-Accounting norms on C-credit from July 1](http://www.articles.timesofindia.indiatimes.com-Accounting-norms-on-C-credit-from-July-1), Namrata Singh, TNN Jun 13, 2009,
6. <http://www.deloitte.com/energysolutions>
7. [http://www.epcandi.com/Default.aspx,Shailendra Sharma](http://www.epcandi.com/Default.aspx,Shailendra-Sharma), sept 2011
8. <http://www.globaladvisors.in/carboncredits.htm>
9. <http://www.scribd.com> (Presentation by J K Dadoo, Secretary (Environment)-cum-Chairman (DPCC), Govt. of NCT of Delhi, CARBON CREDITS AND KYOTO PROTOCOL, 16th October 2008)
10. <http://www.wikipedia.com>
11. Kerr Stephen G., Bradley University, USA, "Accounting Policy And Carbon Credits", Journal of Business & Economics Research – August 2008 Volume 6.
12. Murray E.V, "The emerging market for carbon trading: a new business opportunity for banks", Cab calling oct-dec, 2007.
13. The Chartered Accountant October 2006

NOTES

1. **GHGs** refer to polluting gases including carbon dioxide which cause global warming.
2. **Carbon credits** are key component of national and international emission trading schemes implemented to mitigate global warming. They provide an incentive to reduce GHG effect emissions on an industrial scale by capping total annual emissions and letting the market assign a monetary value to any shortfall through trading. The prescribed targets under the protocol were not made applicable to the developing or least developed nations. It was like penalizing the developed countries for polluting the environment while spoiling the developing or less developed countries as they were allowed to continue to pollute. In a nutshell, a carbon credit is the financial instrument, which represents one metric ton of carbon pollution.
3. **JI**-Here, a developed country (say USA) with relatively high costs of domestic greenhouse reduction can set up a project in another developed country (say India) that has a relatively low cost, such that the CO₂ mission of the project is counted within a country that has a surplus
4. **CDM**-Here, a developed country (say USA) can take up a greenhouse gas reduction project in a developing country (say China) where the cost of greenhouse gas reduction project activities is much lower. The developed country would be given credits for meeting its emission reduction targets, while the developing country would receive the capital and clean technology to implement the project.
5. **EIT**-Here, countries can trade in the international carbon credit market. Countries with surplus credits can sell them to countries with quantified emission limitation and reduction commitments under the Kyoto Protocol.
6. In a cap-and-trade system, each individual emission allowance has a "vintage" year designation i.e the year an allowance may be used. Emission allowance with the same vintage year designation are fungible within a particular jurisdiction and can be used by any party to satisfy pollution from any source. Vintage year swaps are common among participants in a US cap and trade program. One of the earliest trading schemes is the European Emission Trading Scheme (EU ETS), which the worlds largest multi-country cap and trade system. The EU has established a cap that limits emission of its member states, each of which has been given a specific number of credits. The total amount of credits cannot exceed the cap, limiting total emissions to that level.

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