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CARBON CREDIT ACCOUNTING ISSUES AND CHALLENGES

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ABSTRACT

Carbon credit being a new term at national and international levels has given rise to an interesting monetary accounting dimension. India has emerged as the biggest beneficiary of Clean Development Mechanism beneath the Kyoto Protocol in terms of generation of revenues through sale of carbon credits. But, there's presently no proper accounting principle for carbon credits. The ICAI issued steering Note in 2012 that provides comprehensive measures on accounting for CERs generated by CDM. In this paper, a discussion on Certified Emission Reduction (CER), varied problems concerning accounting and reportage aspects of carbon credits are outlined.

KEYWORDS: *Carbon credit, Carbon credit accounting, Clean Development Mechanism, Certified emission reduction.*

INTRODUCTION

Carbon – di –oxide (CO_2) is the major contributor to global warming. Everyday lots and lots of Carbon-di-oxide and other Green House Gases (GHGs) are released into our atmosphere. This is causing speedy environmental changes, which is against human welfare. One of the challenges facing the man kind is global warming. To deal with the difficulty of global warming, the United Nations Framework Convention on Climate Change (UNFCCC) has adopted a protocol in 1997 at the crest in Kyoto, Japan. This came into effect on 16th February 2005. Upto March 2012, 191 member nations have ratified the protocol with the exception of US, which is the world's largest emitter of Greenhouse gases. Totally 36 nations have decided to cutback the emission of green House Gases by 5.2% by Mar 2012. The Protocol provided various mechanisms to control the climate changes, like the Joint Implementation, Clean Development Mechanism (CDM), and International Emission Trading.

After the implementation of Kyoto Protocol, Carbon Credits emerged as a commodity by itself capable of being bought and sold. India has emerged as the biggest beneficiaries of Clean Development Mechanism beneath the Kyoto Protocol in terms of generation of revenues through sale of carbon credits. In a developing country like India, there is lot of chances of investments by both public and private sector in CDM projects as it will fetch good return on investment. Carbon Credits do not have a physical existence, the accounting and financial reporting has aroused many interesting issues and challenges. The concept of Carbon Credit was proposed in order to enforce this emission limit. According to this concept, each carbon credit is equal to 1 Metric Tonne of Carbon-di-Oxide or an equivalent amount of other Green House Gases. Therefore they can be traded just like shares in stock exchanges. Accounting issues pertaining to the carbon Emission Trading Scheme stay as a biggest problem. There are two types of issues – Financial implications of the emission trading system and the other relates to the financial implication to CDM projects on host entities in developed countries. The directions issued by the ICAI do emphasize on the recording the transactions relating to sale and purchase of the Carbon Credits in the account books, but there still exists a kind of ambiguity.

As per the Kyoto Protocol there are three types of carbon credits to serve three different purposes:

1. Certified Emission Reduction or CER
2. Assigned Amount Units or AAU
3. Emission Reduction Unit or ERU

Certified Emission Reduction or CER

CER is defined as a unit of carbon credit issued by UNFCCC. CER will be issued after verified by the designated operational entity. CER units can be purchased from primary markets and saleable in secondary markets, in short CER units are tradable in stock markets and held by organizations in electronic form.

Assigned Amount Units or AAU

As per the Kyoto Protocol, every member nations is assigned with emission target of Co2 and number of allowances which is termed as Assigned Amount Units. One unit of Assigned Amount Units permits a nation to emit one metric tonne of Co2. AAU is tradable and unused AAU is allowed to carry forward to the next year.

Emission Reduction Unit or ERU

As per the Kyoto Protocol, ERU is a unit which stands for reduction of GHG which indicates reduction in one tonne of Co2 or equivalent Gases. With the help of Joint Implementation mechanism, ERU technology transfer between the member nations happens. ERU units are also tradable.

REVIEW OF LITERATURE

Ratnatunga (2007) used one hand the term Carbon emission and sequestration accounting that has the target to calculate the quantity of CO2 emitted by a supply or sequestered in a very biomass sink. On the opposite hand, the researcher uses Carbon price accounting that is a constituent of the Environmental price accounting.

Ratnatunga and Balachandran (2009) studied the effects of the global prices of CO2 emissions are often captured by accounting systems and how they will be engineered into the price and costs of various product and services.

Kerr, S. G. (2011). In 1996, the Kyoto city Protocol established a worldwide policy aimed at reducing inexperienced house gas (GHG) emissions. With respect to that steady steps are taken to implement carbon emission limits. Markets are being established so corporations will exchange carbon allowances. Turning the setting, a public sensible, into material possession presents several economic challenges. This study explains the implications of the policy direction established within the city of Kyoto accord. Many changes to company accounting policy are suggested. The anticipated profit is that socially accountable professionals can prepare their establishment's price and money accounting systems to give confidence achievement as carbon emissions become a lot of regulated.

Greggy Sridana, Cindy Yullenda, Usadhi Lakshmi (2014) The global warming phenomenon occurring since many decades before began to own a major impact for the globe. The Kyoto protocol became one amongst the cornerstone within the unification efforts of the countries within the world to minimize gas emissions. Indonesia, in a concert of the countries with the most important tropical rain forest within the world and a signer to the Kyoto Protocol, will have the benefit of it, particularly from carbon credit theme is in its implementation needs carbon accounting. This study uses the analysis technique of literature review through the analysis of the information and data gathered from varied analysis and laws governing carbon accounting in Indonesia. This study can make a case for regarding the opportunities in implementing carbon accounting and therefore the drawbacks in accounting for carbon principle in Indonesia. Implementation of carbon accounting can bring some opportunities to the government, companies, and native communities living around the firm's activities. Some drawbacks that are seen by Indonesia in implementing this principle are the dearth of government awareness of the importance of accounting standards for carbon and therefore the lack of a universal standard in carbon accounting.

OBJECTIVES OF THE STUDY

1. To review the accounting procedures in carbon credit in India.
2. To understand the inventory valuation method of CER.
3. To study the accounting issues in carbon credit in India.

While coming to the objectives of the study it is necessary to have an idea of process of generation of carbon credit which is given in the following design.

PROCESS OF GENERATION OF CARBON CREDIT (CER)

RESEARCH METHODOLOGY

Research Design –Descriptive Research – This study is based on data collected through published sources.

Data Collection Methods – Based on Secondary data-Journals, Magazines, Periodicals, Annual reports, Bulletins and website, reports.

CARBON CREDIT ACCOUNTING

There remains an ambiguity for the accounting treatment for expenditure on the Carbon credit accounting for CERs, accounting purchasable and other aspects relating to Carbon credit. To resolve the accounting problems, the (ICAI) has issued Draft of the steering Note on Accounting for Certified Emission Reductions in 2009,enumerating recommended accounting principles for CERs that provides for accounting principles regarding recognition, measuring and disclosures of CERs generated by CDM as declared hereinafter :

Accounting framework and treatment of CER in India:-

1. When the CER is at the approval stage in the Executive board, it should be treated as contingent asset.
2. The expenses incurred on the project for clean development mechanism and reduction in carbon emission should be treated as intangible assets.
3. Once when the CER certified by UNFCC, and is available for trade, the CER should be treated as inventory.
4. The profit from the sale of CER should be accounted as profit from business.
5. Profit from sale of intangible asset is taxable under capital gains; most of the companies are showing the profit as income from other sources.
6. When CER are sold out to foreign companies , VAT is not applicable
7. For the valuation of closing of stock of CER, the rules pertaining to valuation of closing inventory applies, it is measured at the cost price (or) market price whichever is less.
8. While calculating the cost price of CER, the expenses incurred for setting up of CDM project, operating expenses and expenses incurred for generation of CER are to be included.
9. Cost involved in research and development of CER should not take into account for the calculation of cost price of CER. The Research and Development expenses should be treated as per Accounting Standards-2.
10. All those capital expenses for the CDM/CER should be treated as capital assets.
11. As a disclosure norm, in the financial statement, Number of CER held and the methodology of assessment of CER should be disclosed.
12. It is also necessary to provide the details about the number of CER'S under certification
13. Depreciation can be claimed for the capital goods which are involved in the project for the reduction of Carbon Emission.

14. Separate category should be disclosed in the balance sheet of the company about the material used, work in progress and finished goods with respect to the CDM/CER project.

Inventory valuation of CER

According to Accounting Standards -2 issued by ICAI, valuation of inventory has to be calculated at cost price or market price whichever is less.

1. While calculating the cost price of CER, the expenses incurred for setting up of CDM project, operating expenses and expenses incurred for generation of CER are to be included.
2. While calculating the market price of CER which is termed as net realizable value (NRV), the formula should be taken into account.

NRV= Estimated Selling Price- (Estimated cost of completion + Estimated selling cost)

CARBON CREDIT ACCOUNTING ISSUES IN INDIA

1. Till the approval of CDM by United Nations Framework for Climate Change, the project has to be treated as intangible asset, after approval CER has to be treated as inventory. The conversion from asset to inventory in accounting will give rise to more complications.
2. While computing the cost of CER, the cost incurred for certification has to be treated as cost of inventory, the treatment for other expenses incurred for CER are not clarified.
3. Selling price of CER is obtained easily from the stock markets and commodity exchanges, but the calculation of actual cost price involves complication and the guidelines are ambiguous.
4. While calculating the profit on sale of CER, if all the cost incurred is not taken into account, there will be mismatch in the amount of profit in the financial statement.

The guidelines provided by ICAI with respect to accounting of CER in carbon credit found to be inconsistent. Already in June 2005 the accounting interpretation issued by the International Accounting Standards Board (IASB) under the International Financial Reporting Standards was withdrawn due to various complications in practical accounting of carbon credit. Now it is the time to debate and develop new mechanism of accounting to carbon credit. At present the Carbon Credit Problem posing the challenges of suitable system of valuation, accounting and auditing guidelines at international and national levels. At present the carbon credit problem posing the challenges of suitable system of valuation, accounting and auditing guidelines at international and national levels.

CONCLUSION

In India, CDM projects are being undertaken by many companies, but there are still exists some issues relating to accounting, legal and taxation. Consistency methods should be practiced with respect to carbon credit accounting. There is an absence of uniform accounting practices and disclosure norms in the area of CMD projects. A major challenge in carbon credit accounting is treatment of various cost involved at various stages of CDM project. Policy makers /corporatists, educators and practitioners. It is the time to make further discussions and make new developments with the help of educators, charted accountants, corporations to give guidance on carbon credit accounting, derivative accounting on the CER.

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