



## Accounting for Carbon Credits in India

### KEYWORDS

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### 1. Introduction:

A carbon credit is a generic term for any tradable certificate or permit representing the right to emit one tonne of carbon dioxide or the mass of another greenhouse gas with a carbon dioxide equivalent (tCO<sub>2</sub>e) equivalent to one tonne of carbon dioxide. Carbon credits and carbon markets are a component of national and international attempts to mitigate the growth in concentrations of greenhouse gases (GHGs). The quality of the credits is based in part on the validation process and sophistication of the fund or development company that acted as the sponsor to the carbon project. This is reflected in their price; voluntary units typically have less value than the units sold through the rigorously validated 'Clean Development Mechanism'. There are different accounting treatment options under consideration which are impacted by the method with which the carbon credits are acquired, whether by internal creation, purchase or donation to the organization. The different accounting treatment options also consider the intended use of the credits – will they be used for an organization's own compliance purposes or sold to market participants?

### 2. Objectives of the Study:

This study aims to fulfill the following objectives:

1. To study the trends in carbon emissions in six countries from 2008 to 2012
2. To study the issues of Carbon credit accounting in India
3. To study the taxation issues in carbon credit accounting in India.

### 3. Research Methodology:

This study is carried out with the help of secondary data collected from books, articles in journals, reports of Governmental and other Authorities, data published by the Institute of Chartered Accountants of India. This paper includes a study of trends in carbon emissions in for six countries namely India, United States, Japan, China, Australia and Canada for five years from 2008 to 2012 so as to understand the percentage growth in these countries for these periods.

### 4. Trends in CO<sub>2</sub> emissions per region/country, –2012 (unit: billion tonnes of CO<sub>2</sub>):

Country	CO <sub>2</sub> emissions in billion tonnes					Percentage changes			
	2008	2009	2010	2011	2012	2008-09	2009-10	2010-11	2011-12
India	1.56	1.69	1.78	1.84	1.97	8.33	5.32	3.37	7.07
United States	5.74	5.32	5.50	5.39	5.19	-7.32	3.83	-2.00	-3.73
Japan	1.25	1.18	1.24	1.24	1.32	-5.6	5.08	--	6.45
China	7.79	8.26	8.74	9.55	9.86	6.03	5.81	9.27	3.25
Australia	0.44	0.43	0.43	0.44	0.43	-2.27	--	2.27	-2.27
Canada	0.57	0.54	0.55	0.56	0.56	-5.26	1.85	1.82	---
Total	15.79	15.73	16.46	17.18	17.36	-0.38	4.64	4.37	1.04
Mean	3.158	3.146	3.292	3.436	3.472	-	-	-	-

### Source: TRENDS IN GLOBAL CO<sub>2</sub> EMISSIONS 2013 REPORT: PBL NETHERLANDS Environmental Assessment Agency

The above table shows the trends in carbon emissions in six countries from 2008 to 2012 and the percentage changes in it for the above period. It can be seen that in India the carbon emissions which were at 1.56 billion tonnes in 2008-09, grew by 8.33 percent and thereafter it declined to a growth rate of a positive 5.32 percent in 2009-10 and still by a lower positive growth at 3.37 percent in 2010-11 and again in 2011-12 the growth was at a higher 7.07 percent as compared to its previous period. In all the years under study the growth in carbon emissions was seen to be increasing as compared to its previous period.

It can be observed that the United States of America had carbon emissions at 5.74 billion tones in 2008 which declined by 7.32 percent in 2008-09 and grew at a positive rate of 3.83 percent in 2009-10 but again declined by 2 percent in 2010-11 and thereafter went down further by 3.73 percent in 2011-12, depicting an uneven rate of growth in carbon emission with a positive sign of reductions in carbon emissions in all the five years except in 2009-10. In Japan, in all the first year under study 2008-09 there was a reduction in carbon emissions by 5.6 percent as it came down from 1.25 billion tonnes to 1.18 tonnes from 2008 to 2009. However in the subsequent year 2009 to 2010, it grew at 5.08 percent, which came at a standstill in 2010-2011 at 1.24 percent as in the previous year, but again gained momentum in growth at 6.45 percent, a much higher figure than before. China witnessed a continuous growth in carbon emissions from 7.79 billion tonnes to 8.26 billion tones with the growth at 6.03 percent from 2008 to 2009 and at 5.81 percent from 2009-10 and thereafter still at a much higher 9.27 percent in 2010-11 and at 3.25 percent in 2011-12. Australia had experienced a much stable figure of carbon emissions in all the years under study with a first negative growth at 2.27 percent in 2008-09 and thereafter it was stable in 2009-10 and again it grew at a positive figure of 2.27 percent in 2010-11 and again declined by the same figure in 2011-12. In Canada, the carbon emissions were to the extent of 0.57 billion tonnes in 2008-09 which declined to 0.54 billion tonnes in 2009-10 at 5.26 percent which remained more or less stable at 0.43 and 0.44 million tonnes in 2009-10 and 2010-11 respectively and thereafter it was stable t 0.56 billion tonnes.

### 5.1 Carbon Credit Accounting:

#### 4.1 Accounting Issues – Exposure Draft On Guidance Note On Accounting For Carbon Credits By ICAI:

Despite the growth in carbon credits in India, 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. There are no separate accounting standards prescribed for accounting, measurement and disclosures of carbon credits. To resolve the accounting issues, the Institute of Chartered Accountants of India (ICAI) has issued an Exposure Draft of the Guidance Note on Accounting for Self-generat-

ed Certified Emission Reductions (CER) in 2009 enumerating suggested accounting principles for CERs generated by an entity which provides for accounting principles relating to recognition, measurement and disclosures of CERs generated by CDM as stated hereunder:

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 possesses 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 as also the cost at which CERs be recorded in the books, as huge amount of expenditure is incurred in this respect.

### 5.2 Taxation for 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 also be applicable. Typically, carbon credits in India are sold to overseas buyers; hence, there would be no VAT applicable on these goods. Whenever the asset is sold,

money exchanges hands in return for forest carbon offset ownership rights. Accordingly, forest carbon offsets qualify as assets for financial accounting purposes because they are entity controlled and provide future economic benefits. The use of the forest carbon offsets determines their nature, which in turn dictates how they should be classified in the financial statements. This directly impacts the financial value perceived by the public and private sectors of forest carbon offsets.

### 6. Conclusions and Suggestions:

In order for the forest carbon market to function adequately and develop fully, clear financial accounting standards for forest carbon offsets must be established. Lack of uniform financial accounting makes it difficult to fairly compare financial statements between forest carbon offset projects, whether they are in the public or private sector. Difficulty regarding information transparency and comparability will persist in the forest carbon markets regardless of international policy direction till uniformity is established with respect to accounting practices.

**Until authoritative guidance is issued, an organization should keep in mind several key considerations when establishing a policy for accounting for environmental assets:**

1. Develop an accounting policy based on thoughtful analysis as to the use of the environmental assets by the organization and with consideration of how future events may impact financial results. The policy must be applied consistently; therefore decisions made now may impact future reporting.
2. Monitor issues that may arise during the accounting period (e.g., expense recognition, impairment, accounting for shortfalls of allowances or credits, vintage-year swaps, and revenue recognition for excess sales) to ensure appropriate consideration and resolution.
3. Present and disclose environmental assets in line with accounting policy and intended use (based on materiality)
4. Evaluate instruments for derivative accounting. Forward, future, swap or option contracts may qualify as derivative instruments.
5. Remember to account for renewable energy credits, whether they are generated through production, purchased on the market, or embedded within a power purchase agreement.
6. Finally keep an eye on the FASB's updates to watch for new guidance about how to account for carbon credits and emission allowances.

An appropriate and uniform classification of forest carbon offsets in the financial statements is imperative both for internal decision making and for external stakeholders. There should be financial accountability for our forestry carbon offsets with permanence, regularity, consistency, prudence, and full disclosure and materiality for our forestry carbon offset market to grow as an industry into an alternative investment asset class.

### REFERENCE

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