# *Accounting Issues in Emission Trading*

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**Abstract**

For several decades, the economic, environmental and health effects from Green House Gases (GHGs) have been closely studied and debated. Currently, nations are pursuing alternative strategies in their quest to cut down the level of GHG emissions and meet national targets.

As a result of increasing awareness about Global warming, the concept of carbon credits, an outcome of the Kyoto protocol, came into existence. "Kyoto Protocol" has served the idea of saving the planet earth from the global meltdown. Since the concept of emission trading is comparatively new, the financial and accounting aspects of this phenomenon are yet to be discussed and decided upon. It is believed by experts of the field that carbon is also treated as on input and thus becomes a cost of business, like other inputs do. Accounting treatment of donated CER credits and internally generated carbon credits relate to carbon offsets. Their accounting treatment is under debate as it provide for a vast difference in its impact. This article introduces the fundamental accounting issues concerning emissions of GHGs and thus, is an effort to throw some light on the financial issues of carbon credit trading.

**What Does Carbon Credit Mean?**

Global warming has been considered as a serious issue in the past few decades. On one hand, where it has become essentially important to reduce the emission levels, an entirely new industry has evolved holding great opportunities for the investors.

The concept of carbon credits came into existence as a result of increasing awareness of the need for pollution control. It is a focus point of national and international emission trading schemes that have been brought into action to mitigate global warming. They provide a way to reduce the effect of green house gases emissions on an industrial scale by capping total annual emissions and letting the market assign a monetary value to any shortfall through trading. Credits can be exchanged between businesses or bought and sold in global markets at the prevailing market price.

Emissions of carbon dioxide and other Greenhouse Gases (GHG's) from human activities like deforestation, fusil fuel combustion, industrial processes, etc. have resulted undoubtedly in global warming. These emissions must be controlled and reduced to protect our Mother Earth from the adverse effects of the climate change. To attain this goal, the concept of Clean Development Mechanism (CDM) has come into existence as a recommendation of the Kyoto Protocol.

The Kyoto Protocol is an agreement made under the United Nations Framework Convention on Climate Change (UNFCCC). The treaty was negotiated in Kyoto, Japan in December 1997 but it came into force and legally binding on 15th February 2005. The CDM is an arrangement under the Kyoto Protocol which is perhaps most exciting feature of the total scheme which allows 'Annex 1 countries' (41 industrialized countries such as USA, UK, Japan, Australia, France, etc.) to meet their emission reduction in 'Non-Annex 1 countries'

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(developing countries such as India, Sri Lanka, China, Iran, Kenya, Singapore, etc.)

Carbon credits are certificates issued to countries that reduce their emission of GHG (greenhouse gases) which causes global warming. Carbon credits are measured in units of Certified Emission Reductions (CERs). Each CER is equivalent to one tone of carbon dioxide reduction.

Credits can be allocated by a government as part of a plan that sets a limit on the total amount of GHG emissions. This is referred to as 'The Cap-and-Trade' approach. The 'Cap-and-Trade' system uses free market principles to attain a decline in a certain GHG emission. A regulatory body fixes a limit on the allowed amount of emissions and issues permits (carbon credits) for that amount. Organizations covered by the cap must emit according to the permits they possess. If companies exceed their maximum emission limits, they are expected to obtain credits from other organizations that have surplus credits, or by investing in projects that offset their emissions. Thus, emissions are 'capped', and emitters can 'trade' credits until their emissions match the amount of permits they possess. Purchasing carbon credits offer the opportunity for companies to better manage their climate impact.

**Accounting Issues in Emission Trading**

India is one of the major players in the global market on the supply side of CERs. Typically carbon credits are purchased either through CER purchase agreements, trading on the stock exchanges or even by biding for tenders floated by several governments. As this is a new concept, it has given rise to certain financial accounting dimensions. The major issues involved are:

- How to account for expenditure on CDM projects?
- Whether or not to account for self-generated CERs held with registry?
- If credits are to be accounted, at what point of time these should be recognized in books of accounts and at what value?
- How to account for sale consideration of CERs and its disclosure in accounts and notes?

**Income from Sale of CERs**

The sale proceeds of CER may be treated as income under various heads while calculating the Net Taxable income of the Organizations dealing in emission trading. The provisions regarding the same are mentioned as under:

- Treatment as a Business Income:
  - It is taxed at normal rates prevailing in the relevant assessment year.
  - Eligible for set off against the business losses.
- Treatment as Capital Gains:
  - Taxed at concessional rates if held for more than 36 months.
  - Eligible for set off against the capital losses.
- Treatment as Income From Other Sources:
  - Taxed at normal rates as prescribed by the Law.

**Treatment of CER Credits as per Different Accounting Standards Treatment Under AS-17 (Segment Reporting)**

Developing a CDM project cannot be viewed as a typical commercial transaction. It is rather a simple way to make businesses environment conscious and friendly than being a huge profitable business in itself. Till date, there are no separate or specific Indian Accounting Standard to measure expenditures and income related to emission trading projects. It is believed that a CDM project cannot be a profit centre or cost centre in itself, it can be identified with its parent segment. But some experts in the area opine that the CDM projects should be accounted for and treated as a separate segment under AS-17 i.e. Segment Reporting.

**Treatment as 'Goods'**

As per Law, 'goods' has been defined as "a tangible property or an intangible one. It would become goods provided it has attributes thereof having regard to (a) its utility; (b) capacity of being bought and sold; and (c) capacity of being transmitted, transferred, delivered, stored and possessed."

Thus, CER credits are considered to be goods, as they possess all the desired attributes thereof.

**CER Sale is Not a 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." Thus, it concludes that CER credits cannot be included in or treated as turnover.

**Non-Recurring Sale**

Part II of Schedule VI of The Indian 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 we consider CERs as goods, their sale is undertaken generally on a non-recurring basis. Thus the joint deriving of Section 43A and Schedule VI of The Companies Act, 1956 states that sale proceeds of CER credits, not being a regular course income, should be disclosed as a separate line item in schedule of other income, if amount is material.

**Revenue Recognition as per AS-9**

As the CER credits are considered as 'goods', thus their sale proceeds should be treated in the financial accounts as per AS-9 i.e. 'Standard of revenue recognition'.

The conditions of Para 11 goes as mentioned:

"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) No significant uncertainty exists regarding the amount of the consideration that will be derived from the sale of the goods."

**Accounting Carbon Credits as per AS-12**

In the absence of specific accounting practices for CERs, it has also been advised that they should be accounted as Government Grant. The logic is supported by the definition of the term 'Government' as per AS-12, which says, "Government refers to government, government agencies and similar bodies, whether local, national or international." But as soon as CERs are accounted as Government Grants, the revenue recognition as per AS-9 ceases to exist.

**Self-generated CERs are not inventories**

The self-generated CERs held with registry cannot be included in inventories as defined in Accounting Standard-2, as they are not sold in the regular and normal course of business. The sales proceed of CER credits is only an additional benefit of a CDM project. And because it is an income earned other than the regular course of business, thus it would be impossible to measure the cost of self-generated CER asset reliably.

**'Intangible Asset' as per AS-26**

Para 19-23 of AS-26 deals with the measurement and treatment of intangible assets. This section states that an intangible asset 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. Thus, because the cost of self-generated CER asset cannot be assessed reliably, thus they

cannot be recognized in accounts due to specific requirements of AS-26.

- CERs should be recognized in the books when those are **credited by UNFCC** and are unconditionally available to the taxpayer.
- "Cost of CER" may include consultant's fees, certification fees and each payment made to UNFCCC for obtaining the CER credit.
- Self generated CERs may be treated as **"Business Capital Asset"** and hence taxable as business income.
- CERs purchased for resale may be **treated as business asset or investment asset** depending on the intention of the tax payer.

## Conclusion

The several treatment options under consideration are impacted by the method adopted for acquiring the carbon credits, 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? The main differences in the accounting treatment for carbon credits is whether they are treated as inventory or intangible assets, and whether they are marked to market or held at cost.

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