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# INDIAN CARBON CREDIT ACCOUNTING IN GLOBAL SCENARIO

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**ABSTRACT :**

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 (tCO2e) 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; volunta units typically have less value than the units sold through the rigorously validated 'Clean Developme Mechanism'. There are different accounting treatment options under consideration which a impacted by the method with which the carbon credits are acquired, whether by internal creatio purchase or donation to the organization. The different accounting treatment options also consid the intended use of the credits – will they be used for an organization's own compliance purposes sold to market participants ?

This paper revisits the Carbon credit accounting sustainability framework concept, tries explain its utility for organisations, policy makers and economic development practitioners a highlights certain recent examples of putting Carbon credit accounting into practice.

**KEY WORDS :** Carbon Credit Accounting, carbon dioxide, greenhouse gases, IPCC, CER

## INTRODUCTION :

The burning of fossil fuels is a major source of greenhouse gas emissions, especially for pow cement, steel, textile, fertilizer and many other industries which rely on fossil fuels (coal, electric derived from coal, natural gas and oil). The major greenhouse gases emitted by these industries a carbon dioxide, methane, nitrous oxide, hydrofluoro carbons (HFCs), etc., all of which increase t atmosphere's ability to trap infrared energy and thus affect the climate.

The concept of carbon credits came into existence as a result of increasing awareness of t need for controlling emissions.

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**TIVES OF THE STUDY**

The primary goal of this study is to analyse the issues of Carbon credit accounting in India. The secondary objectives are

derstand the trends in carbon emissions in India.

dy buying and selling issues in carbon credit accounting in India.

eate awareness amongst various stakeholders and citizens about the benefits of the Carbon Accounting framework in India.

**on:**

This study is based on the secondary data collected from corporate, Annual reports of various financial houses, Journals, websites and periodicals. It is supported more by facts than by numerical data. The study is further limited to the discussion of the need of Carbon Credit Accounting framework for corporate sustainability.

**THESIS**

Lack of uniform financial accounting makes it difficult to fairly compare financial statements between forest carbon offset projects in India.

**ODOLOGY**

This study is based on secondary data's. The information has been collected from authorities of corporates, annual reports, journals and periodicals.

**ent and Significance**

**ion**

The dictionary defines a carbon credit as "a certificate showing that a government or company is allowed to have a certain amount of carbon dioxide removed from the environment". It is a "generic term to assign a value to a reduction or offset of greenhouse gas emissions usually equivalent to one tonne of carbon dioxide equivalent (CO2-e)."

**und**

The IPCC (Intergovernmental Panel on Climate Change) has observed that: Policies that provide a price or implicit price of carbon could create incentives for producers and consumers to significantly

invest in low-GHG products, technologies and processes. Such policies could include economic instruments, government funding and regulation, while noting that a tradable permit system is one of the policy instruments that has been shown to be environmentally effective in the industrial sector, as long as there are reasonable levels of predictability over the initial allocation mechanism and long-term price.

The mechanism was formalized in the Kyoto Protocol, an international agreement between more than 170 countries, and the market mechanisms were agreed.

**Emission allowances**

Under the Kyoto Protocol, the 'caps' or quotas for Greenhouse gases for the developed Annex I countries are known as Assigned Amounts and are listed in Annex B. The quantity of the initial assigned amount is denominated in individual units, called Assigned amount units (AAUs), each of which represents an allowance to emit one metric tonne of carbon dioxide equivalent, and these are entered into the country's national registry.

In turn, these countries set quotas on the emissions of installations run by local business and other organizations, generically termed 'operators'. Countries manage this through their national registries, which are required to be validated and monitored for compliance by the UNFCCC. Each operator has an allowance of credits, where each unit gives the owner the right to emit one metric tonne of carbon dioxide or other equivalent greenhouse gas. Operators that have not used up their quotas can sell their unused allowances as carbon credits, while businesses that are about to exceed their quotas can buy the extra allowances as credits, privately or on the open market. As demand for energy grows over time, the total emissions must still stay within the cap, but it allows industry some flexibility and predictability in its planning to accommodate this.

By permitting allowances to be bought and sold, an operator can seek out the most cost-effective way of reducing its emissions, either by investing in 'cleaner' machinery and practices or by purchasing emissions from another operator who already has excess 'capacity'.

Since 2005, the Kyoto mechanism has been adopted for CO2 trading by all the countries within the European Union under its European Trading Scheme (EU ETS) with the European Commission as its validating authority. From 2008, EU participants must link with the other developed countries who ratified Annex-I of the protocol, and trade the six most significant anthropogenic greenhouse gases. In the United States, which has not ratified Kyoto, and Australia, whose ratification came into force in March 2008, similar schemes are being considered.

**Kyoto's 'Flexible mechanisms**

A tradable credit can be an emissions allowance or an assigned amount unit which was originally allocated or auctioned by the national administrators of a Kyoto-compliant cap-and-trade scheme, or it can be an offset of emissions. Such offsetting and mitigating activities can occur in any developing country which has ratified the Kyoto Protocol, and has a national agreement in place to validate its carbon project through one of the UNFCCC's approved mechanisms. Once approved, these units are termed Certified Emission Reductions, or CERs. The Protocol allows these projects to be constructed and credited in advance of the Kyoto trading period.

These carbon projects can be created by a national government or by an operator within the country. In reality, most of the transactions are not performed by national governments directly, but by operators who have been set quotas by their country.

**markets**

For trading purposes, one allowance or CER is considered equivalent to one metric ton of $CO_2$ ns. These allowances can be sold privately or in the international market at the prevailing price. These trade and settle internationally and hence allow allowances to be transferred en countries. Each international transfer is validated by the UNFCCC. Each transfer of ownership the European Union is additionally validated by the European Commission.

Managing emissions is one of the fastest-growing segments in financial services in the City of with a market estimated to be worth about €30 billion in 2007. Louis Redshaw, head of mental markets at Barclays Capital predicts that "Carbon will be the world's biggest commodity and it could become the world's biggest market overall."

**a market price for carbon**

Unchecked, energy use and hence emission levels are predicted to keep rising over time. Thus mber of companies needing to buy credits will increase, and the rules of supply and demand will p the market price, encouraging more groups to undertake environmentally friendly activities eate carbon credits to sell.

**uying carbon credits can reduce emissions**

Carbon credits create a market for reducing greenhouse emissions by giving a monetary value cost of polluting the air. Emissions become an internal cost of doing business and are visible on lance sheet alongside raw materials and other liabilities or assets.

For example, consider a business that owns a factory putting out 100,000 tonnes of greenhouse issions in a year. Its government is an Annex I country that enacts a law to limit the emissions that siness can produce. So the factory is given a quota of say 80,000 tonnes per year. The factory reduces its emissions to 80,000 tonnes or is required to purchase carbon credits to offset the . After costing up alternatives the business may decide that it is uneconomical or infeasible to in new machinery for that year. Instead it may choose to buy carbon credits on the open market organizations that have been approved as being able to sell legitimate carbon credits.

**ng carbon credits**

The first step in determining whether or not a carbon project has legitimately led to the on of measurable and permanent emissions is understanding the CDM methodology process. the process by which project sponsors submit, through a Designated Operational Entity (DOE), concepts for emissions reduction creation. The CDM Executive Board, with the CDM Methodology and their expert advisors, review each project and decide how and if they do indeed result in ons that are additional.

**nting of Carbon Credit**

Despite the growth in carbon credits in India, there remains lot of ambiguity for the accounting ent – questions on accounting for expenditure on the CDM projects, accounting for self- ted CERs, accounting for sale consideration and so on. There are no separate accounting rds prescribed for accounting, measurement and disclosures of carbon credits. To resolve the nting issues, the Institute of Chartered Accountants of India (ICAI) has issued an Exposure Draft Guidance Note on Accounting for Self-generated Certified Emission Reductions (CER) in 2009 rating 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

An appropriate and uniform classification of forest carbon offsets in the financial statements 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, an full disclosure and materiality for our forestry carbon offset market to grow as an industry into a alternative investment asset class.

While undertaking the project for reduction in carbon emission, cost incurred on developme should be accounted for as enumerated in AS 26 for intangible assets. Cost incurred on receiving CER measured with certainty at the time of incurring those expenses whereas revenue recognition w happen only at the time of sale of CERs. So there is a mismatch in accounting for expenses and revenu This study will highlight on all the positive and negative points in this regard and bring out the mismatc of accounting treatment in comparison with world standards.

## CONCLUSIONS-

The Kyoto mechanism is the only internationally agreed mechanism for regulating carbon cred activities, and, crucially, includes checks for additionality and overall effectiveness.

As Indian manufacturing sector is responsible for a large proportion of global emissions hav avoided mandatory caps.

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

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

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