CARBON CREDIT ACCOUNTING - A CASE STUDY

Mr Piyush Kumar Rameshbhai

[B.com(a/c), B.com(stat), M.com(a/c), M.com(stat), M.Phil.]

Ph.D. Scholar, Hemchandracharya North Gujarat University, Patan, Gujarat, India.

INTRODUCTION:

Global warming problem has become a major problem for every country nowadays. Therefore, after 1970, various organizations from different countries came forward to overcome such problems. The UNFCCC (UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE) was the first effort to prevent pollution like GHG (greenhouse gases), which is increasing in general. The environment was founded in 1992 in Rio de Janeiro, the capital of Brazil Global Conference on Climate Change due to Green House Gases Many countries expressed concern about it. At this conference, several countries signed the UNFCCC. Then, in 1997, a global conference in Kyoto, Japan drafted a draft to reduce the emission of greenhouse gases, and hence it was named the Kyoto Protocol. This protocol was duly dated. Enacted into law on 16/02/2005.

This organization came into existence after 1992. First, he undertook efforts to reduce pollution from the atmosphere by 5%. Developed industrialized countries that have ratified the Act have agreed to reduce their greenhouse gas emissions by 5.2% of their 1990 levels from 2008 to 2012. GHG = Since the amount of carbon dioxide, carbon monoxide, etc. is mainly high in greenhouse gases, UNFCCC first took efforts to stop it.

Two types of procedures are recognized here.
1. Trade in Green House Gases and

2. Clean Development Mechanism (CDM)

According to this law, there is no necessary condition for developing countries to implement the terms of the Kyoto Protocol, but it is a good opportunity to get foreign investment by reducing pollution in their country through the above mechanism.

What is carbon credit?

A carbon credit is a certificate issued to certify emission reductions. These certificates are traded on the international market and purchased by companies in developed countries that sign the Kyoto Protocol to reduce GHG emissions in the most cost-effective manner. A carbon credit is a financial instrument and is an intangible asset. Until they are sold, they are treated as assets (inventory) in the balance sheet.

The concept of carbon credit came into being as a result of increasing awareness of the need for pollution control. It took formal form after an international agreement between 41 countries popularly known as the Kyoto Protocol. A carbon credit is a certificate given to countries that are successful in reducing emissions that cause global warming. This agreement was brought into existence to reduce greenhouse gases. According to the provisions of this agreement, developing countries have to reduce the emission of greenhouse gases and they can sell the credits obtained by this to developed countries. Developed countries can reduce pollution at a relatively low cost. This is because the cost of purchasing credits is lower than the cost of abatement.

How does carbon credit come into existence?

According to Article 12 of the Agreement, such an agreement is between developed industrialized countries and developing industrialized countries. Under the terms of the agreement, an industry in a developing country agrees to reduce the amount of carbon and other greenhouse gases emitted by its industry. By doing so, this developing industrialized country earns carbon credits known as Certified Emission Reduction (CER). A developed industrialized country can sell the carbon credits thus earned to a developing country. This amount from the sale will help the developing country's industry reduce the amount of greenhouse gas pollution Abatement technologies will be adopted and developed countries will be able to show that they have reduced pollution by purchasing credits and demonstrating their commitment to complying with the terms of this agreement. The agreement aims to increase foreign investment in developing countries and reduce pollution by trading carbon emissions.

Kyoto Protocol:

In general, the Kyoto Protocol is a set of rules for both developed and developing countries. As many as 41 developed countries first undertook such efforts to clean the atmosphere and prevent pollution.

Here as per the rules of Kyoto Protocol
- To developed countries – ANNEX - 1 COUNTRIES as well

Developing countries are known as – NON ANNEX – 11 COUNTRIES.

According to the Kyoto Protocol, developing and least developed countries are not bound by their emissions. Under the Kyoto Protocol, countries with binding emission reduction targets that are currently under development are granted allowances, i.e. carbon credits, equal to the number of permitted emissions to meet the prescribed reduction targets. This carbon credit represents an allowance for emitting one metric ton of carbon dioxide equivalent. To meet emission reduction targets, obligating countries (developed countries) in turn set limits on GHG emissions by their domestic businesses and institutions. In addition, to enable developed countries to meet their emission reduction targets, the Kyoto Protocol is based on three market-based mechanisms.

1. **Joint Implementation (JI):**
   The joint implementation here (JOINT IMPLEMENTATION) will be anyone developed country going to a developing country Global Warming Efforts will be made to eliminate such problems. The developed country will strive to reduce the GHG emissions of the developing country.

   Under JI, a developed country with a relatively high cost of domestic GHG reduction can set up a project in another developed country with a relatively low cost and receive carbon credits that can be applied toward their emissions targets.

2. **Clean Development Mechanism (CDM):**
   Under the CDM, a developed country can undertake a GHG reduction project activity in a developing country where the cost of GHG reduction is generally much lower and the developed country will be awarded carbon credits for meeting its emission reduction targets. E.g. Plans include reforestation schemes and investing in clean technologies.

   In the case of CDM, organizations from developing/least developed countries can set up GHG reduction projects, get them approved by the UNFCCC and get carbon credits. Such carbon credits generated by organizations in developed countries with emission reduction targets can be purchased. The unit associated with CDM is the Certified Emission Reduction (CER) where one CER is equivalent to one metric ton of carbon dioxide.

   Here generally any country undertakes efforts to reduce the amount of GHG in its own country. E.g. Municipalities in Gujarat by Erosion of forests Plant more trees to prevent

3. **International Emissions Trading (IET):**
   Under the IET, developed countries with emission reduction targets can trade in the international carbon credit market. This means that organizations in developed countries exceed their emission limits and can buy carbon credits from other countries whose actual emissions are below their set limits. Carbon credits can be exchanged between businesses or bought and sold in the international market at prevailing market prices.

Non-polluting companies in less developed countries can sell carbon dioxide emission allowances (carbon credits) and earn extra money in the process.

Here according to this concept all the countries which come in ANNEX- 1 That is, developed countries will sell their ERUs to developing countries and make a profit will get

ERU = EMISSION REDUCTION UNITS

Here are the savings from each country's emissions targets met by the UNFCCC Curry owns increased units It's not in the international market Buying and selling Process of its market price will do accordingly.

ERU = CER

CER = CERTIFIED EMISSION REDUCTION

E.g. A country like India produces 1,00,000 tonnes of electricity by using windmills instead of coal . have saved. That means 1, 00, 000 CER carbon credits have been obtained.

- If now this 1, 00, 000 CER How many Indians, if India sells Rs, Let's calculate what we get.

Total = 1,00,000 CER

Value of one CER = 5 EURO

1,00,000 CER * 5 EURO * 78 = 3,90,00,000 Rs.

Carbon trade:
This method of buying and selling carbon credits is known as carbon trading.

Carbon trade has created a new trading platform at the international level today . Every country can try to get carbon credits by setting a limit in its own country and get less pollution than that and sell such CERs at the international level and earn profit.

Calculation of carbon emissions:
Internationally accepted methodologies are implemented and calculated to determine whether an industry has reduced its carbon emissions. For this purpose, carbon emissions are considered as a baseline before the implementation of the mechanism project. Carbon emissions are then measured after implementing the mechanism. This change is converted into the standard unit of CER.

CDM projects:

1. The project should protect biological diversity and minimize the use of natural resources

2. Prior approval of the CDM Executive Board is required for any project.

3. There is a provision to introduce CDM only in projects implemented after the year-end of 2000.

4. The area under forest area dated There is a provision to apply the CDM project only in areas not falling on 31/12/1989.

5. Carbon reduction should be demonstrated after the introduction of pollution abatement processes.

6. There should be an independent auditor's certification that the carbon reduction in the atmosphere by the project is measurable and long-term.

7. Should be consistent with the definition of balanced development of the government of the country concerned.

8. There is a provision to fix the duration of the project before starting the project. A term is for seven years. This term may be renewed. The second term is for ten years. This term is not renewable.

   9. 2% of the proceeds from the sale of carbon credits is earmarked for spending on countries most affected by climate change.

10. Leakage ie accidental carbon emission and their management should be mentioned in the project management.

11. Provision is made to use a certain portion of the carbon credit for the administration costs of the CDM.

12. There is a provision not to fund the CDM project from the Official Development Fund.

Project report:
First of all, a project report should be prepared. It should mention the detailed methodology and its results. The views of the local people should also be included in it. Then it is necessary to get approval for the project from the government of the respective country.

Auditor's approval:
The project requires not only government approval, but also the approval of an auditor CDM, the Executive Board appoints an independent auditor for the same. The auditor verifies the project properly. It examines the way of calculating carbon reduction, its monitoring, government approval, etc. The Registration Auditor submits his report and project report to the CDM Executive Board. Then the project is registered for a maximum of two months.

Discloser:
After registration, the project can be implemented. An independent auditor also verifies whether carbon emissions actually occur as specified in the project report. The auditor submits his report to the CDM Executive Board. CERs are allocated based on this report. Gujarat Fluoro Chemical Ltd. Is located in the Panchmahal district in Gujarat. India's first and the world's third CDM project has been built. This company manufactures gases used for refrigerators. Due to this company's Eco-friendly technology, the emission of a greenhouse gas called HFC 23 is reduced.

What type of asset is CER?
Considering the non-physical nature of CER, it is included in the Accounting Standard (AS 26), Intangible Assets As per AS -26, the definition of " Intangible Asset" is noted as follows

"An intangible asset is an identifiable non-monetary asset, without physical substance, held for use in the production or supply of goods or services, for lease to others, or for administrative purposes ."

From the above information we can note that although CERs are non-monetary assets without physical form, they do not strictly fall within the meaning of "intangible assets" as per AS 26. The reason is that CERs are not held for use. production or supply of goods or services and CERs are neither used for administrative purposes nor used for the purpose of leasing to others.

CER is inventory that exists because it is produced and held for the purpose of sale in the ordinary course of business. Therefore, even though CER is an intangible asset, it is accounted for in the B standard and shall conform to the requirements of AS 2.

Presentation:
Emission rights certified as part of existing inventories should be presented in the balance sheet separately from other categories of inventories such as raw materials, work-in-process, finished goods, and others.

Financial statement:
The financial statements should disclose the following information regarding certified emission rights:

- CERs held as inventory and the basis of valuation.

- Number of CERs under certification.

- Depreciation and operation and maintenance costs of emission reduction equipment incurred during the year.

CONCLUSION:
Carbon trading is an effective tool for developing and non-developed countries to obtain additional benefits. The Clean Development Mechanism is also an effective source of technological and economic development for developing countries with environmental upgrading. Although India is the largest beneficiary of carbon trading, it still has carbon credits in the market Not the right policy. For the proper functioning and development of carbon markets and carbon trading practices, a separate financial accounting standard must be established.

As a result, CO_2 emissions in any country will decrease, problems like global warming will decrease, pollution will decrease, trade will increase, the sense of social responsibility will increase, and each country will get carbon credit. Get it and sell it for profit will get, the amount of GHG will decrease, and the standard of living of the people of their country will improve.

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