

Carbon Trading: The Indian Scenario

***Dr. Sofia Nalwaya**

Abstract:

There are many definitions for sustainable development. However, we will quote from Brundtland report (1987): "Sustainable development is growth that meets current needs without reducing future generation's ability to meet their own needs." Thus sustainability though has different aspects the primary are: the economic, environmental and societal. This paper is going to focus on environment sustainability which refers to preserving the nature and habitats while maintaining the civilization growth. The Kyoto protocol which became effective from February 16, 2005, has drawn worldwide attention to reduce Green House Gas (GHG) emissions. Since then all the developed as well as developing countries throughout the world, have responsibly engaged themselves in devising carbon omissions standards and guidelines for controlling the emission of harmful gases. The G20's flagship initiative at its Pittsburgh Summit (September 2009), launched the framework for solid, sustainable and balanced development. The United Nations Conference on Sustainable Development or Rio+20 which took place in Rio de Janeiro, Brazil on 20-22 June 2012 resulted in a focused political outcome document which endorses the idea of Sustainable Development Goals (SDGs) and contains clear and practical measures for implementing sustainable development. Sustainable development has since become a priority on both global and local level or on the national as well as international front. The terms carbon credit and carbon trading have been accepted globally as the sustainable solution to controlling the emission of GHGs. In a country like India the available limited natural resources are already under a lot of strain because of its vast population. So economic growth is more challenging as the limited natural resources available have to be utilized in a manner that they are sustained for a longer period and are available for the future generations. This paper tries to explore an overview of carbon credit and carbon trading and how the Indian market can effectively fulfill their risk mitigation role in this important sector of the economy.

Keywords: Sustainability, Carbon Trading, Sustainable Development Goals, Kyoto protocol, Green House Gas etc.

Introduction:

Industrialization and socio economic development go hand-in-hand. However, nature's way of hitting back has made human beings realize that they need to be responsible in their handling of the environmental. Environment is the true essence of the human existence and is also necessary for life. It is therefore the duty of the human civilization to save the planet and adopt methods and technologies which keep the environment green and safe to avoid it's own extinction. There is no

Carbon Trading: The Indian Scenario

Dr. Sofia Nalwaya

denying the fact that the blind desire for monetary growth has led to the mindless plundering of the natural resources resulting in environmental hazards and has resulted into global warming posing a serious threat to the environment. Thus sustainable development is the need of the hour and civilization. Sustainable development means maximizing growth while making effective and sustainable use of the limited natural resource resources to ensure that they last for a long time and are also available for the future generations. The Kyoto protocol which became effective from February 16, 2005, has drawn worldwide attention to reduce Green House Gas (GHG) emissions. Since then all the developed as well as developing countries throughout the world, have responsibly engaged themselves in devising carbon emissions standards and guidelines for controlling the emission of harmful gases. The G20's flagship initiative at its Pittsburgh Summit (September 2009) launched the framework for solid, sustainable and balanced development. The United Nations Conference on Sustainable Development or Rio+20 which took place in Rio de Janeiro, Brazil on 20-22 June 2012 resulted in a focused political outcome document which endorses the idea of Sustainable Development Goals (SDGs) and contains clear and practical measures for implementing sustainable development. India has invested heavily in power plants, refineries, power stations, pipelines, highways, railways and improving coastal infrastructure to meet the rising energy demands and also curbing the GHG emission. India's action of power plan is to reduce its carbon emissions by 33 to 35% by 2030 under the Paris climate agreement. India's Niti Aayog, the policy agency has mapped SDG priorities and objectives. If we are able to connect SDG with the climate action plan of India, the carbon market trading will help India achieve not only environment conservation but also economic development goals. This paper aims to analyze a sustainable low carbon (SLC) scenario which is based on sustainable strategies which can further provide guidance for future policy interaction under which an emission trading system (ETS) for CO₂ emission can coexist with climate policy instruments.

Discussion:

Carbon trading is the buying and selling of the right to emit carbon. It is a new artificially created commodity and results from action by governments. It is one of the different approaches that have been developed and adopted by the governments of the nations as a means of curtailing the amount of carbon dioxide that is emitted in the environment so that the carbon emission can be controlled over time. Carbon credits refer to the sellable credits awarded to countries that have reduced their greenhouse gases below their emission quota. These are legal tradable certificates that granted the right equivalent to one ton of carbon or carbon dioxide equivalent. These credits can be sold in the prevalent international market as per the prevalent permissible market price. The carbon trading emerged out of the GHG control mechanism. It is intended to encourage the industries to adopt practices which will result in carbon reduction as the concept of emitting carbon below the emission quota helps the companies earn carbon credits which can be sold to commercial and individual customers. The carbon credits can be exchanged by the industries in national as well as international markets in accordance with the existent market rates.

As per a recent study, the biggest sellers of carbon credits that have emerged are India and

Carbon Trading: The Indian Scenario

Dr. Sofia Nalwaya

China. Europe on the other hand has emerged as the biggest buyer. India in particular being a developing country can benefit from carbon trading by using these credits to create renewable energy projects, adopting various energy saving initiatives as well as generating employment for people by setting up industries which will deal with manufacturing of renewable energy products. Carbon trading is a win-win situation for all concerned. The industrialized nations for which reducing the GHGs is a difficult task can buy carbon credits from countries which do not produce as much as these gases and can benefit from selling the carbon credits.

India belongs to the third category of signatories to ULFCCC. India signed and ratified the KP in August 2002 and falls under the category of non-annexed countries of the list. Government of India initiated The National Action Plan on Climate Change (NAPCC) with eight objectives to ensure energy conservation, sustainable development, wildlife and biodiversity protection and climate resilience. These missions are:

- i. National solar Mission
- ii. National Mission for enhanced energy efficiency
- iii. National Mission on sustainable development
- iv. National water Mission
- v. National Mission for sustaining the Himalayan ecosystem
- vi. National Mission for a great India
- vii. National Mission for sustainable agriculture
- viii. National Mission on strategic knowledge for climate change.

In the 12th five year plan, a group of experts was formed by the planning commission to strategize a low carbon inclusive growth strategy for India. This group of experts estimated national emission reduction potential in the field of power, transport, iron and steel, cement, oil and gas building waste management, other industries and household by 8 to 9% by 2020. India placed reducing GHG emission by 20 to 25% by 2020 in comparison to 2005 and 30 to 35% by 2030. Many Indian companies such as SRF Ltd, Shell Trading International, Suzlon Energy and Shriram EPC have started investing into carbon emission reductions and are expected to derive profit by saving carbon credits. Indian companies are more and more exploring renewable energy sources to evolve eco-friendly projects to all carbon credits. Due to rapid growth of such projects, India's revenue from Carbon Emission Reduction (CER) is expected to increase and Clean Development Mechanism (CDM) are expected to increase significantly. India controls approximately 20 to 25% of the world coal trade. As per a recent World Bank report, India can become one of the prominent beneficiaries of carbon trading as developing countries like US, Germany, Japan and China are the potential buyers of carbon credits. As per the data collected by Amulya Charan chief mentor of Tata Power published in the report and titled 'Future of CDM Projects' suggests that India's dominance in carbon trading business is increasing day by day. The number of CDM projects registered with the UNFCCC is increasing

Carbon Trading: The Indian Scenario

Dr. Sofia Nalwaya

constantly. The carbon trading market in India is growing faster than even IT and other service industries. Jindal Vidyasagar, Honda forest in Madhya Pradesh, Torrent power, Indian Aluminum, Kalpataru Power Transmission, Grasim Industries, Balrampur Chini are some of the carbon trading companies presently operating in India. However, India has yet to develop a proper and professional trading policy for carbon credits. Also foreign exchange generation through carbon trading is restricted as some international buyers such as European market buyers are not allowed to partake in the Indian carbon trading market. The Indian government taking cognizance of this problem is taking steps to increase the market for carbon trading. The Forward contracts regulation amendment Bill was passed in the Parliament on 2 October 2010. Companies like Tata, Reliance, Ambuja, Birla, Bajaj and many more are willing to earn carbon returns through CDM. This has attracted the attention of international carbon credit buyers. In times to come carbon would become one of the most profitable commodities to be traded nationally and internationally. However, the emission of India as per the projection by global carbon project was estimated to have grown by 6.3% in 2018 due to strong economic growth requirement. India is amongst the top four carbon emitters of the world along with China, USA and the European Union. Coal is still the major source of energy production in India which is directly responsible for major GHG emission.

Conclusion:

With the growing awareness and pressure to reduce the GHG pollution, carbon credit trading is likely to emerge as the most profitable business in the modern world. The increase in carbon credit trading in even developing countries like India and China is a harbinger of the future success of carbon trading in the future. India as a developing nation has immense scope for not only GHG deduction but also carbon trading business. As per the World Bank review the carbon trading market in India is emerging strongly despite the various social economic limitations. Though India ranks as the fourth largest emitter of GHG in the world today India is exploring a future target of economic growth through alternative CDM and CER and also the score for carbon trading. For this proper policies need to be formulated. Harmonization of trading systems ought to be started as soon as possible. A comprehensive plan is required to control the carbon emission and also to increase the global carbon credit trading. The shift from fossil fuel generation to solar wind, hydro nuclear waste generation is also an important step to control near about 73% of GHG emission in India.

***Associate Professor
Department of English
Govt. Meera Girls College
Udaipur (Raj.)**

References:

1. Bebbington, J., & Larrinaga-González, C. (2008). Carbon Trading: Accounting and Reporting Issues. *European Accounting Review*, 17(4), 697-717.
<https://doi.org/10.1080/09638180802489162>

Carbon Trading: The Indian Scenario

Dr. Sofia Nalwaya

2. Darragh, C. (2016). Loss and Damage in the Paris Agreement, (February), 8–9
3. Gilberston Tamara, R. O. (2009). Carbon trading how it works and why it fails (No. 07). (Larry Lohmann, Ed.). Dag Hammarskjöld Foundation. Retrieved from <https://www.tni.org/files/download/carbon-tradingbooklet.pdf>
4. Hepburn, C. (2007). Carbon Trading: A Review of the Kyoto Mechanisms. *Annual Review of Environment and Resources*, 32(1), 375–393. <https://doi.org/10.1146/annurev.energy.32.053006.141203>
5. Bhanawat, S. S. (2015). An Analysis of Carbon Credit Revenue Practices in Indian Corporate Sector. *Pacific Business Review International*, 8(6), 24–30
6. Energy Policy, 37(11), pp.4919–4926. SpaldingFecher, R. et al., 2012. Assessing the Impact of the Clean Development Mechanism: Report commissioned by the high-level panel on the CDM Policy Dialogue, Available at: http://www.cdmpolicydialogue.org/research/1030_impact.pdf
7. Garg, A. K., & Arya, S. (2015). The Opportunity Analysis of Carbon Credit Trading for Developing World- a Case Study. *International Journal Of Marketing, Financial Services & Management Research*, 4(February), 29–38
8. Nair, S., & Nandkumar, P. (2013). Environmental carbon trading scenario in India : A Global issue of 21 st Century : A Review. *International Journal of Advancements in Research & Technology*, 2(9), 110– 118
9. UNFCCC. (2010b). Quantified economy-wide emission targets for 2020- Appendix I. Available from <http://unfccc.int/home/items/5264.php>
10. World Bank. (2011,June). State and Trends of the Carbon Market 2011. Carbon Finance at the World Bank, Washington DC

Carbon Trading: The Indian Scenario

Dr. Sofia Nalwaya