

Carbon Trading: A Global Business with Environment in 21st Century.

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"There is no such things as business ethics .there is only one - you have to adhere to the highest standards"- Morvin Bower

Abstract:

Global warming is the most significant threat to the world during 21st century. It is the unusual rapid increase in earth average surface temperature over past century primarily due to the green house gasses released by people burning fossil fuels. Carbon trading is a system whereby countries or individual companies are set emission targets. Those that cannot meet their target can buy credits from countries or companies.

Carbon credits as a concept was discussed and formalized in the Kyoto Protocol. In December 1997, the Third Conference of Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC) adopted the Kyoto Protocol. The protocol requires developed and developing countries to limit their Greenhouse Gas (GHG) emissions to individual targets.

Carbon credits create a market for reducing greenhouse emissions by giving a monetary value to the cost of polluting the air. This means that carbon becomes a cost of business and is seen like other inputs such as raw materials or labor.

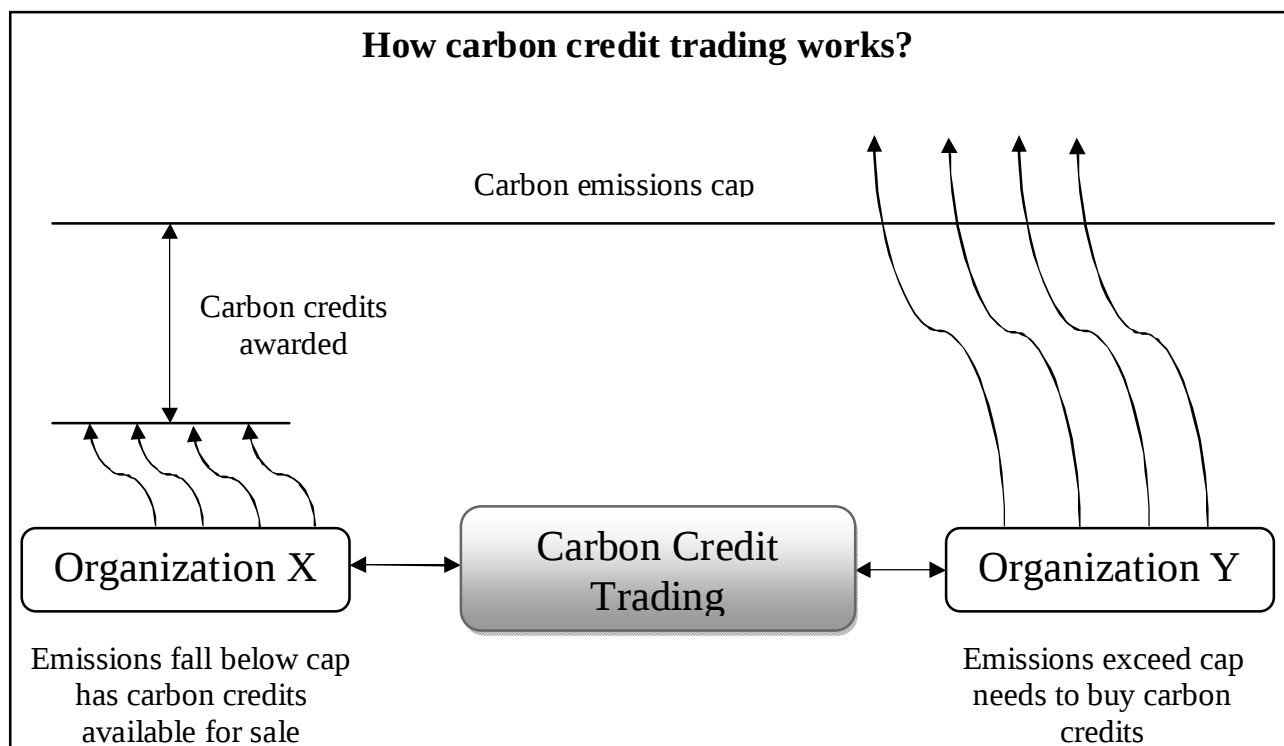
The possibilities are endless; hence making it an open market. Operators that have not used up their quotas can sell their unused allowances as carbon credits, while businesses that are about to exceed their quotas can buy the extra allowances as credits, privately or on the open market. As demand for 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. The paper intends to explore the present world scenario of Carbon trading in the light of Kyoto Protocol.

Keywords:

Carbon credits, CDM projects, Green house gases, Deforestation, The Clean Development Mechanism (CDM), Drivers, Actor.

Introduction:

Global warming is the most important environmental issue of this century. It refers to increase in the average temperature of the planet. Basically it is related with progress of technology. Global warming changes the weather pattern of the World which has a serious effect on global environment. Global warming spawned a new form of commerce: "Carbon Trading". This new economic activity involves the buying and selling of Carbon Credits, implementation of CDM projects etc. Carbon trading is a system whereby countries or individual companies are set emission targets. Those that cannot meet their targets can buy credit from countries or companies that bear theirs. Carbon is the common denominator in all polluting gases that causes global warming. It is produced by burning of fossils fuels and deforestation.

**Objectives:**

The objectives for study are as follows:

To know what is carbon trading and its impact on atmosphere.

To know about the Carbon trading market in India.

To know the present status of Global Carbon Market.

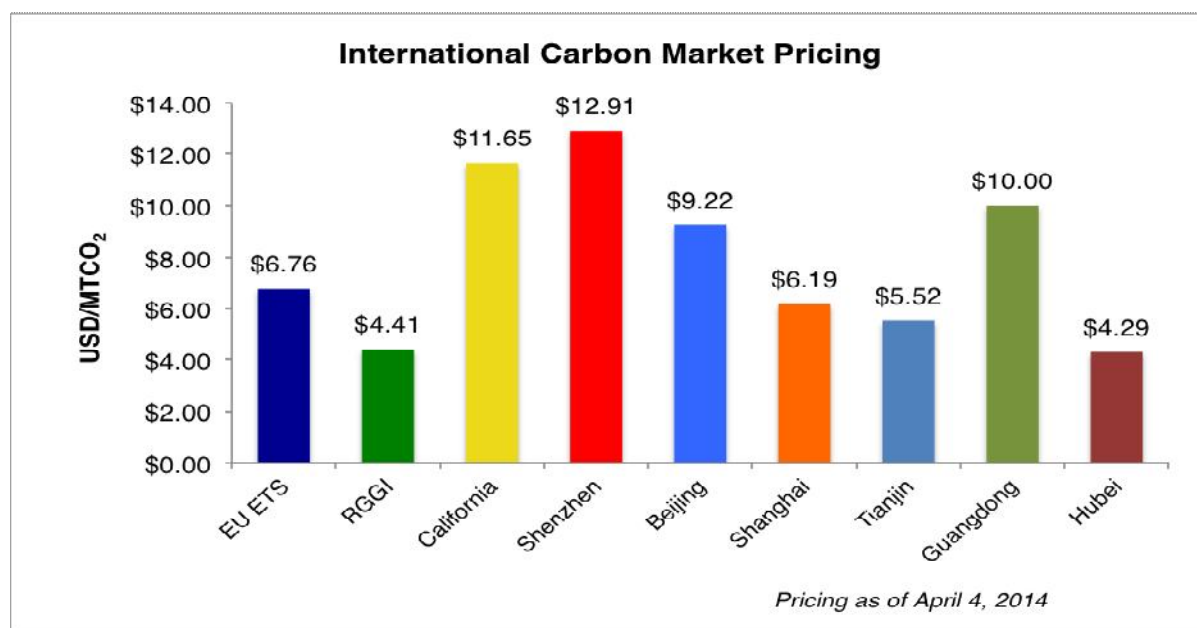
Review of Literature:

According to Shilpa Shanbhag,[Dataquest the business of InfoTech] India needs to put a price on carbon, since true leaders do not wait for international climate mandates. There is nothing stopping India from setting up a domestic environmental exchange based on the guidelines of the international carbon market and converting air and water pollutants such as CO₂, SO₂, NO_x and BoD into tradable instruments. NO_x and SO_x trading schemes in the US have shown that it is possible to reduce emissions and acid rain under an environmental trading scheme. Later she add instead of switching off light bulbs for an hour each year or holding concerts to raise climate change awareness, it would be much sensible to invest in a wind mill, which produces clean power. This mill would offer two-fold benefits of supplying power to the state grid for the next 25 years and it would also earn carbon credits.

Background:

The idea of Carbon Trading has come in response to the Kyoto Protocol. The Kyoto Protocol is an agreement under which developed countries will reduce their green house gas emissions between the years 2008 to 2012 to levels that are 5.2% lower than those of 1990.

The idea behind Carbon Trading is quite similar to the trading of securities or commodities in market place. Carbon would be given an economic value, allowing people, companies or nations to trade it. If a nation bought carbon, it would be buying the rights to burn it, and a nation selling carbon would be given up its right to burn it. The value of carbon would be based on the ability of the country owing the carbon to store it or to prevent it from being released into the atmosphere. A market would create to facilitate the trading of rights.



Kyoto Protocol and Green House Gas Emissions:

Kyoto Protocol is an agreement on global warming made under the United Nations conference on climate change in Kyoto, Japan in 1997. It is an international treaty, which entails binding constraints on green house gas emission. The agreement came into force on February 16, 2005. According to this protocol, industrialized countries will reduce their combined GHG emissions at least five per cent below their 1990 levels by the first commitment 2008 to 2012. It is a key step towards the mitigation of climate change due to increased GHG accumulation in atmosphere.

It was the first international agreement, which legally binds, developed nations to reduce worldwide emission of GHG from these countries.

Table 1: Top 10 countries with CO₂ emission:

Rank	Country	Annual CO2 emissions (in thousands of metric tonnes)	Percentage of global total
	<i>World</i>	29,321,302	100%
1	 China	6,538,367.00	22.30%
2	 United States	5,838,381.00	19.91%
-	 European Union (27)	4,177,817.86	14.04%
3	 India	1,612,362.00	5.50%
4	 Russia	1,537,357.00	5.24%
5	 Japan	1,254,543.00	4.28%
6	 Germany	787,936.00	2.69%
7	 Canada	557,340.00	1.90%
8	 United Kingdom	539,617.00	1.84%
9	 South Korea	503,321.00	1.72%
10	 Iran	495,987.00	1.69%

(Source: Netherland Environmental Assessment Agency)

Clean Development Mechanism (CDM):

The Clean Development Mechanism (CDM), defined in Article 12 of the protocol, allows the country with an emission-reduction or an emission-limitation commitment under the Kyoto protocol (Annex B party) to implement an emission reduction project in developing countries. The objective of CDM is to benefit both investor and the host countries by contributing to sustainable development in the host countries. Under this mechanism, emission reduction projects in developing countries can earn certified emission reduction credits. Industrialized

countries to meet a part of their emission reduction targets under the Kyoto protocol can use these salable credits. The operational mechanism of CDMs involves an investment by a legal entity from a country that has adopted binding emissions targets according to the Kyoto Protocol in a project of a country which does not have that limits of binding emissions, which results in emission reductions. The investment decision would include an agreement between the two parties and their respective countries on the dispensation and transfer of the emission reductions resulting from the project.

They are of particular interest to developing countries, as it provides for investment in projects in developing countries for their sustainable development. While generating GHG statements a country complying with the Kyoto Protocol, which has its Carbon Credits left, may transfer to developed countries or countries which might not be able to meet up its standards, towards meeting their targets under Kyoto Protocol. CDMs address providing alternative technological options and incentives to developing countries, to pursue their socio-economic goals but with lesser climate change impacts.

Drivers of CDM projects:

There are a number of unique drivers encouraging participation in CDM project activities for various entities such as developing country, developed country, NGOs, Corporations, niche companies, industry associations, brokers, development banks, institutional investors, private equity investors and venture capitalists. These drivers have been summarized as below:

Actor	Drivers
Developing country	Promote sustainable development through investment
Developed country	Meet Kyoto targets at low costs
NGOs	Promote the environment and development
Corporations	Offset emissions; investment opportunity
Niche companies	Commercial opportunities, diffuse technology
Industry associations	New opportunity for members
Brokers	Commercial opportunity
Development banks	Promote sustainable development; create new markets
Institutional investors	Portfolio diversification; socially responsible investing

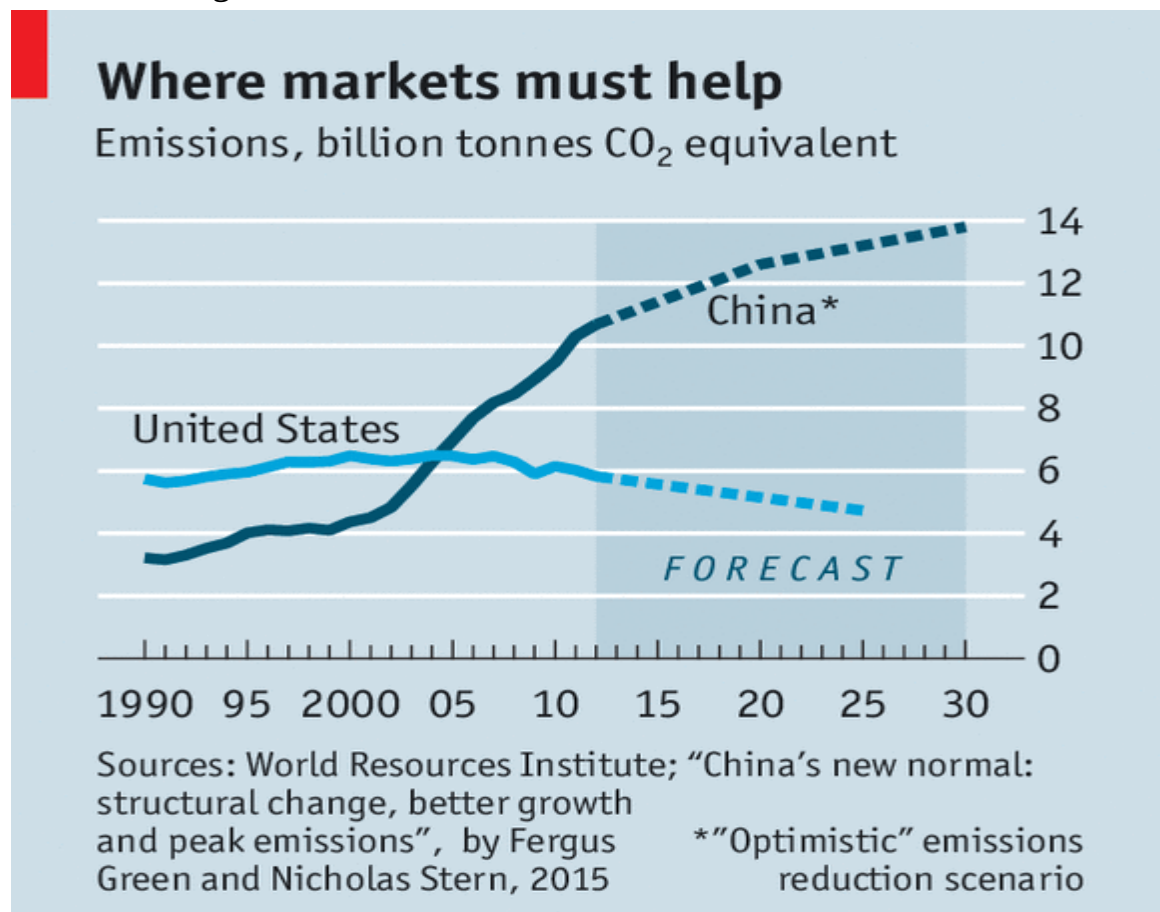
Carbon Trading in India:

India signed and ratified the protocol in August 2002. India is expected to capture between 20 per cent and 30 per cent of the CDM market bring in up to \$300 million in revenue. The ministry of environment and forests deals with the climate change and CDM issues in India. From January 2004 to June 2005, the national CDM authority approved 80 projects, for more than in any other country during the same period.

Two Indian companies from Gujrat and Hariyana, both in the business of refrigerants, are leaders in the world of carbon trading that goes under the CDM of United Nations convention on climate change (UNFCCC). GLF was the first Indian company to get registered for a CDM

project in March 2005. So far GLF has received around Rs.300 corer (including advance) towards sale of carbon credits (The Indian Express, January, 28,2007). While many companies are also looking at generating additional revenue through the sale of carbon credits India has generated approximately 30 million carbon credits and approximately 140 million in run, the second highest transacted volumes in the world. India's carbon market is growing faster than even information technology, bio technology and BPO sectors as 850 projects with a huge investment of Rs 650,000 million are in pipeline. As per the Prime Minister's council on climate change, the revenue from 200 projects is estimated at Rs. 97 billion till 2012. India has been able to register approximately 350 projects spread across various sectors with major dominance of renewable energy, energy efficiency and biomass energy projects. Carbon, like any other commodity, has begun to be traded on India's Multi Commodity Exchange (MCX) and has become first exchange in Asia to trade carbon credits.

Carbon trading in International market:



Economist.com

Now a days, a number of companies of the international market understand the importance of addressing unavoidable emission in an effort to reduce the effect of climate change. Some of the

Major Player's are-

Google:

Google have been carbon neutral since 2007 and recognise the importance of combatting climate change in order to preserve a sustainable environment for their business and the generations to come. They have a three-way approach to becoming a greener company: they optimise their energy by optimising their efficiency, maximise their renewable energy sources where they can and offset their residual emissions. At Google, they see carbon offsets “as a tool that allows (them) to take full responsibility of (their) impact today. When considering an offset project, (they) carefully examine the project's environmental integrity, its ability to be monitored and verified, and ensure that the carbon savings of the project are real and additional to what would have happened without (their) investment.”

Climatecars:

Climatecars is a green car service company in London who take their environmental responsibility very seriously. Their policy adheres to the following key principles: investment in low-emission technology, reduction and recycling of waste, offsetting residual emissions and finally, ensuring a low carbon supply chain.

Puma:

PUMA published its first Environmental Profit and Loss Account (EP&L) in 2010, a sustainability initiative that reported the group's total environmental impact for key areas of greenhouse gas emissions. The EP&L valued PUMA's water, land air and waste pollution generated by its operations at €145 million for that year. This innovative approach to evaluating its environmental impacts has encouraged PUMA to improve its energy use and innovate to develop more sustainable products. The group is also engaging in carbon neutral supply chain and helping its suppliers become carbon neutral. PUMA are eager to “continue to grow toward (their) mission to be the most desirable and sustainable sport-lifestyle company in the world, (...) and to further (their) commitment to collaborate with (their) partners to find solutions to offset (their) carbon footprint.

Conclusion:

Global warming is the most alarming threat to the world in 21st century. There is a lot of evidence that the climate of the earth is changing. The average surface temperature has risen; glaciers have been melting and sea levels rising in the recent years. The human caused emissions have been rising dramatically after the beginning of the industrialization.

There is a lot of evidence that the climate of the earth is changing. The average surface temperature has risen; glaciers have been melting and sea levels rising in the recent years.

There is also strong evidence that humans and their actions contribute the changes in the climate. The human caused emissions have been rising dramatically after the beginning of the industrialization. There is no doubt that industry is the biggest source of the carbon dioxide emissions. It is important to reduce the emissions from industry, and the emission limits are a good way to do so. However, it would be important to identify also other causes of CO₂ emissions, and especially to recognize the reasons why industry causes so much carbon dioxide. In fact the reason is that there is a great demand for the products of industry. So the consumers of industry who create the demand have a big role in the emission reduction. Identifying the real causes of the emissions is the only way to reduce them significantly.

To achieve this goal, every party involved including offices and public events should be educated about how to reduce their consumption and that way the emissions, which are created because of their consumption needs. Also the studies and follow-ups of the CO₂ emissions should not be limited only to industry and traffic, but also the emissions from offices and public events as well as from other consumers. In order to have a control over it, awareness among the people is very important. The concept of carbon trading has developed to fight against it. But the mechanism has so many limitations. It does not provide “level playing field” for both developed as well as developing countries. The objectives of the concept have changed now a day. It is going to be a new tool of capitalist exploitation.

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