



# GLOBAL STRATEGY & INVESTMENT CONSULTING

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## CARBON CREDITS....

a VC PERSPECTIVE

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## Introduction

The greenhouse gas market has shown significant developments over the past several years. From a theoretical construct proposed by politicians and academics during the early mid 1990s to an important part of Kyoto Protocol in 1997, to what is today a very promising and active market, the evolution has been very impressive.

Carbon credits are an important constituent of national and international emissions trading schemes. They provide means to reduce greenhouse effect emissions on an industrial scale by capping total annual emissions and letting the market assign a monetary value to any shortfall through trading. These credits can be exchanged between businesses and can be bought or sold at prevailing market prices in international markets. Credits can be used between trading partners and around the world to finance carbon reduction schemes. There are many companies that sell carbon credits to commercial and individual customers interested in lowering their carbon footprint on a voluntary basis. These carbon offsetters purchase credits from an investment fund or a carbon development company that has accumulated credits from individual projects. The quality of the credits is partly based on the validation process and partly on the sophistication of the fund or development company that acts as the sponsor to the carbon project, the reflection of which can be seen in the price. Typically, voluntary units have less value than the units sold through the rigorously-validated Clean Development Mechanism.

## Kyoto Protocol

The Kyoto Protocol is a 'modus operandi' to the International Framework Convention on the reduction of greenhouse gas emissions which result in climate changes. It is an amendment to the United Nations Framework Convention on Climate Change (UNFCCC), an international treaty intended to bring countries together to reduce global warming and to cope with the effects of temperature increases that have been unavoidable even after 150 years of industrialization. Countries that ratify the Kyoto Protocol commit to reduce emissions of six greenhouse gases that contribute to global warming: carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, HFCs and PFCs. The Kyoto Protocol entered into force on 16<sup>th</sup> February 2005 and presently covers more than 170 countries. The main objective of the protocol is to reduce worldwide greenhouse gas emissions to below the 1990 level of 5.2% by 2008 to 2012. As of December 2007, the US and Kazakhstan are the only signatory nations not to have ratified the act. This treaty expires in 2012, and international talks on a future treaty to succeed the current one have begun in May 2007.



## Investment Plans of Venture Capital Firms in Carbon Credit Projects

India is an emerging market for Carbon Credits. EcoSecurities, a developer and trader of Carbon Credit projects is looking at investment opportunities for such projects in India. The company had recently raised 80 million euros to make direct investments in worldwide carbon reduction schemes. It is looking at 30 to 40 projects in the renewable energy sector, which will include small hydroelectric projects of 10-15 MW, to as high as 150 MW projects. Apart from Brazil and India, China is one of the three most significant signatories to the Kyoto Protocol.

As the Indian carbon sector gets hotter, venture capital firms are making a beeline to set up exclusive carbon funds for clean development projects (CDM), which have the potential to generate carbon credits. To begin with, IFCI Venture Capital Fund is planning to float Green Venture Fund with a corpus of Euro 50 million. It is presently looking for a partner, who once on board, can enable this corpus to be raised to Euro 100 million depending on the appetite for the carbon sector in India. It is expected that the Green India Venture Fund would be two-tiered (one for the domestic market and the other for the foreign shores). The fund will scout for viable CDM projects which could generate a good amount of carbon credits. It is expected that the carbon market will witness a huge upside in terms of valuations, with other financial institutions and banks also considering floating similar funds. According to United Nations Framework Convention on Climate Change (UNFCCC), India is expected to generate around 28 million units of CERs (certified emission reductions) or carbon credits. To provide the initial funding, Green India Venture Fund will take up equity position in CDM projects and is looking for returns in the range of 12 to 13%.

### Future Outlook

The rising pressure on countries to address climate change has paved the way for the rise of a multimillion dollar international market for buying and selling emissions of greenhouse gases. Ever since its establishment in 2001, the carbon market has captured the attention of Indian entrepreneurs. Majority of projects selling carbon credits so far include renewable energy (such as wind power, biomass cogeneration and hydropower), energy efficiency measures in several sectors (such as cement, petrochemicals and power generation) as well as the reduction of industrial gases that contribute to climate change.

The market for carbon credit deals in India is expected to be around USD 6 billion (INR 236.4 billion) in the next four years. About 34% of the total numbers of CDM projects that have been approved are from India. Environmental finance as an asset-class is pegged at USD 1 trillion globally by 2012. A carbon credit, or certified emissions reductions (CER), licenses the owner to emit one tonne of carbon dioxide in a year.



These CERs are awarded by the CDM executive board, an arm of the United Nations (UN), to projects in developing countries. Indian CERs are predominantly bought by European and Japanese companies. With Australia ratifying the Kyoto Protocol, strong demand is expected from that region. Recently, the ITL (International Transaction Log) was awarded to the Kyoto Treaty by UNFCCC, to help transfer the CDM registry to a national level. As a matter of fact, the price of CERs is bound to rise with the ITL in place. CERs were priced at around USD 17 (around INR 672) as on March 2007 as compared to European Union Allowances or EUAs, which are the regional equivalents of CERs, selling as high as around USD 30 (around INR 1186). Due to lack of transfer facilities of Asian CERs to the national registry of a European buyer, the European buyers ended up paying a higher price for locally available EUAs. This price difference between CERs and EUAs is expected to lessen thereby offering better deals to Indian players.

The carbon credit market is the fastest growing market in the world. The volume of carbon credits sold by developing countries doubled between the year 2003 and 2004 and tripled by 2005. In 2006 alone, carbon transactions worth USD 30 billion (INR 1.19 trillion) were conducted globally, transferring some USD 5 billion from the countries of the global north to the global south. Out of the total number of carbon contracts signed in the world till date, India has the second largest portfolio with a market share of 12%, trailing only behind China, which has a whopping market share of 61%. India has a lot to look up to and aim for as far as the carbon credit market is concerned.



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