Title of the Paper

"Carbon Finance – Innovative Financing for Sustainable Development"

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1. INTRODUCTION :-

"The future we want should be a future in which there is ecological and economic space for sustainable growth for all. Let us work together to attain the future that we all desire"

--Dr. Manmohan Singh, Prime Minister of India[1]

As we know that Greenhouse Gases (GHGs) only causes damage to the environment but that is not the case in the present scenario. Now it helps in generating finance for the organization. It directly helps for sustainable development and indirectly helps organization particularly to the developing countries to raise the finance. The Clean Development Mechanism (CDM) aims to promote sustainable development in developing countries and allow industrialized countries to earn emissions credits from their investments in emission reducing projects in developing countries. Carbon Finance term is applied to investment in GHGs emission reduction projects and the creation of the financial instruments that are tradable on the carbon market. CDM is recognized through the Kyoto Protocol allowing offset of emissions in developed countries by the investments in emissions reductions projects in developing countries like India, China, Pakistan, Sri Lanka etc. The Kyoto Protocol is a protocol to the United Nations Framework Conventions on Climate Change (UNFCC) aimed at fighting global warning adopted in 1997 came into effect in the year 2005. The World Bank has constituted the World Bank Carbon Finance Unit (CFU). CFU uses money contributed by governments and companies in OECD countries to purchase project based GHG emissions reductions in developing countries. According to Report 2012 prepared by World Bank Carbon Finance Unit, it states that carbon market grew in total value by 11% in 2011, to $ 176 billion and where transaction value reached a new height of 10.3 billion tons of carbon dioxide equivalent (CO_2e). For the year 2012, it is projected that Carbon Market will reach the target of $400 billion.

[1] "Manmohan Singh hits out at developed nations over carbon emissions", (Speaking at the Conference, Rio+20 Summit, UN Conference on Sustainable Development at Rio De Janeiro, June 2012) http://articles.economictimes.indiatimes.com/2012-06-22/news/32369050_1_sustainable-development-natural-resources-carbon-emissions accessed on June 22, 2012

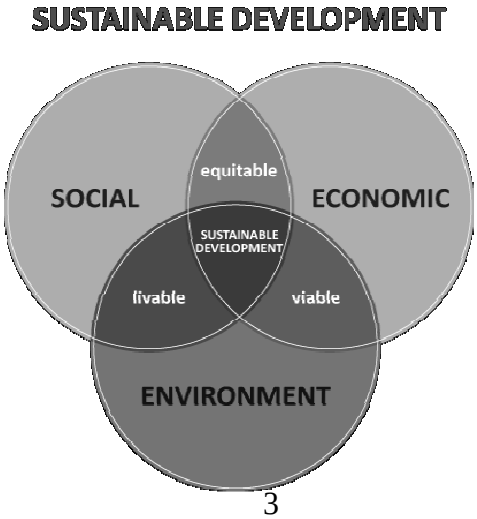
Present paper will discuss the overview of Carbon Finance, Role of International Organization in development of Carbon Finance, Recent scenario in Carbon Finance. Present paper is based on the secondary data available in the form of journal, research paper, news article etc.

2. AN OVERVIEW OF CARBON FINANCE :-

Before looking at the overview of the Carbon Finance, we will see the concept of Sustainable Development which led to this new idea of financing simultaneously preserving the environment. In other word we can say it "Innovative Financing for Sustainable Development"

Sustainable Development :-

Sustainable Development is a pattern of economic growth in which resource use aim to meet human needs while preserving the environment so that these needs can be met not only in the present, but also for generation to come. The term 'Sustainable development' was used by the *Bruntland Commission* formally known as World Commission on Environment and Development which coined what has become the most often-quoted definition of sustainable development as development that 'meets the needs of the present without compromising the ability of future generation to meet their own needs. Sustainable Development affects the integration of economic, political and social variables. This implies economic growth together with improved quality of life and environment protection, each one reinforcing others. Sustainable development is to maintain a balance between the human need to improve lifestyles and feeling of welfare and on the other side, the preservation of natural resources and ecosystem, of which future generation as well as the current on to depend.



***Carbon Market Mechanism* :-**

Carbon Markets have been a key driver for challenging finance and investments to projects that reduce greenhouse gas emission in developing countries since 2005, when the Kyoto Protocol came into effect. The verified emission reductions associated with these projects are used to generate financial assets (carbon credits) that are tradable in several carbon markets that have emerged at regional and national levels. The carbon finance associated with the sales of these credits contributes to meeting the incremental costs of 'greening' investments. Between 2005 and 2010 the cumulative value of origination and trade in these carbon credits was US $95 billion (Cumulative value of trade in primary and secondary Clean Development Mechanism contacted credits, Source : State and Trends of the Carbon Market Report 2011, The World Bank). Significant investment flows have been mobilized, especially from the private sector, as carbon credits can be used to meet climate commitments while simultaneously contributing to low-emissions economic development. As more countries seek to establish domestic carbon markets and use carbon pricing to achieve their climate related objectives, carbon finance is expected to remain a key instrument for catalyzing finance for low-emission development.

The problem of climate change led to subscribe the Kyoto Protocol which falls within the UN Framework Convention on Climate Change. This document implies that industrialized countries reduce their emissions of greenhouse gases. Global commitment is to reach an emission level for the period 2008-2012 which is an average 5.2% below 1990 levels. The carbon market has been created to allow countries and companies from industrialized countries to meet in an easier way their objectives of emission reduction according to Kyoto Protocol. This consists of a purchase and sale space of emission quotas and certified GHG emission reduction also carbon credits. Each carbon credit equals to one ton of certified CO_2e that is not emitted in to the atmosphere. This market allows entities of developing countries, following certain certification process, to generate carbon credits for reducing GHG emissions and thus achieve and additional financial resources to promote investment projects in clean technologies.

Countries committed to the Kyoto Protocol to reduce GHG emission must reach their targets through national measures. As additional means to achieve these goals, the protocol introduced three flexible mechanism based on the market, creating what is now known as the Carbon Market. These measures are International Emission Trading, Clean Development Mechanism and Joint Implementation. These mechanisms provide financial incentives to private companies that contribute positively to the environment and that regulate or reduce their emissions. Thus benefitting to companies that do not emit or emit less than their objectives and making pay companies that emit more than their objectives.

Flexibility Mechanism[2] :-

1. *Joint Implementation Mechanism (JI) :-*

Joint Implementation is a program under the Kyoto Protocol that allows industrialized countries to meet part of their obligations to cut emissions of greenhouse gases paying for projects that reduce emissions in other industrialized countries. The operation of the joint implementation mechanism is similar to the CDM. This mechanism generates Emissions Reduction Units (ERU).

2. *International Emission Trading (IET) :-*

Emission trading is a buy-and-sale scheme of greenhouse gases emissions between countries with targets set under the Kyoto Protocol. That is to say, between industrialized countries belonging to Annex I of the Kyoto Protocol. Thus, those which reduce their emissions more than committed can sell surplus emission certificates to countries that have not entirely fulfilled their commitment.

3. *Clean Development Mechanism (CDM) :-*

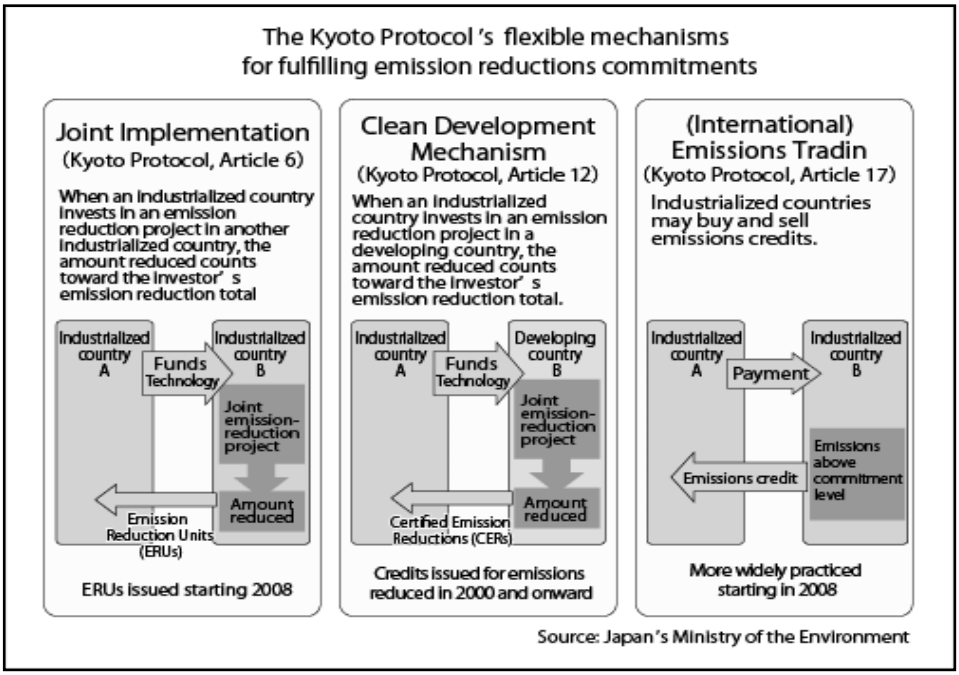
The Clean Development Mechanism (CDM) is an agreement on the Kyoto Protocol, Article 12, which allows industrialized country governments and

[2] "The Mechanism under the Kyoto Protocol : Emission Trading, the Clean Development Mechanism and Joint Implementation", http://unfccc.int/kyoto_protocol/mechanisms/items/1673.php July 1, 2012

businesses (natural or legal persons, public or private entities) to enter into agreements in order to meeting targets for reducing greenhouse gas (GHG) in the first commitment period between the years 2008 to 2012. This is done by investing in emissions reduction projects in developing countries (so called countries non-Annex I) as an alternative to acquire certified emission reductions (CER) to lower costs.

The CDM allows projects of greenhouse gas emission reduction in countries without emission targets under the UN Framework Convention on Climate Change (UNFCCC) and Kyoto Protocol. In theory, the CDM allows a drastic reduction in costs for industrialized countries, though they generate the same emission reduction that would have occurred without the CDM. The CDM also generates a transfer of clean technologies to developing countries. Governments or companies when investing in these CDM projects receive Certificates of Emission Reductions (CERs) which can be purchased at a lower cost than in their market and simultaneously achieve complete reduction targets. A CDM project must comply with the terms of additionally, baseline determination and contribution to sustainable development of the country, as provided by Article 12 of the Kyoto Protocol. A project that participates in the CDM must comply with the cycle established by the Board of the CDM prior to receiving the economic benefits resulting from such participation

Following figure will explain the flexible mechanism under Kyoto Protocol.



3. INTERNATIONAL ORGANIZATION IN DEVELOPMENT OF CARBON FINANCE :-

3.1 United Nations Framework Convention on Climate Change (UNFCCC)[3] :-

In 1992, countries joined an International Treaty, the United Nations Framework Convention on Climate Change (UNFCCC), to cooperatively consider what they could do to limit average global temperature increase and resulting climate change and to cope with whatever impacts were by then, inevitable. Climate Change is a complex problem which although environmental in nature, has consequences for all spheres of existence on our planet. It either impacts on or is impacted by global issues, including poverty, economic development, population growth, sustainable development and resource management. There are now 195 parties to the conventions. By 1995, countries realized that emission reductions provisions in the Conventions were inadequate. They launched negotiations to strengthen the global response to climate change and two years later adopted the Kyoto Protocol. The Kyoto Protocol is an International agreement linked to the UNFCCC. The Kyoto Protocol legally binds developed countries to emission reduction targets. The Protocol's first commitment period started in 2008 and ends in 2012. The major distinction between the Protocol and the Convention is that while the Convention encouraged industrialized countries to stabilize GHG emissions, the Protocol commits them to do so. Recognizing that developed countries are principally responsible for the current high levels of GHG emissions in the atmosphere as a result of more than 150 years of industrial activity, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities."

Countries with commitments under the Kyoto Protocol to limit or reduce greenhouse gas emissions must meet their targets primarily through national measures. As an additional means of meeting these targets, the Kyoto Protocol introduced three market-based mechanisms, thereby creating what is now known as the "carbon market."

[3] "Background on the UNFCCC : The International response to climate change", http://unfccc.int/essential_background/items/6031.php accessed on July 1, 2012

The Kyoto mechanisms are:

- Emissions Trading
- The Clean Development Mechanism (CDM)
- Joint Implementation (JI)

The Kyoto mechanisms : -

- Stimulate sustainable development through technology transfer and investment
- Help countries with Kyoto commitments to meet their targets by reducing emissions or removing carbon from the atmosphere in other countries in a cost-effective way
- Encourage the private sector and developing countries to contribute to emission reduction efforts

JI and CDM are the two project-based mechanisms which feed the carbon market. JI enables industrialized countries to carry out joint implementation projects with other developed countries, while the CDM involves investment in sustainable development projects that reduce emissions in developing countries.

The carbon market is a key tool for reducing emissions worldwide. It was worth 30 billion USD in 2006 and is growing. Annex I Parties must provide information in their national communications under the Protocol to demonstrate that their use of the mechanisms is "supplemental to domestic action" to achieve their targets. This information is assessed by the facilitative branch of the Compliance Committee

3.2 World Bank Carbon Finance Unit (CFU)[4] :-

The World Bank Carbon Finance Unit's (CFU) initiatives are part of the larger global effort to combat climate change, and go hand in hand with the World Bank and its Environment Department's mission to reduce poverty and improve living standards in the developing world. The CFU uses money contributed by governments and

[4] "About the World Bank Carbon Finance Unit" http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/ENVIRONMENT/EXTCARBONFINANCE/0,,contentMDK:21841841~menuPK:4125923~pagePK:64168445~piPK:64168309~theSitePK:4125853,00.html accessed on July 1 , 2012

companies in OECD (Organization for Economic Co-operation and Development) countries to purchase project-based greenhouse gas emission reductions in developing countries and countries with economies in transition. The emission reductions are purchased through one of the CFU's carbon funds on behalf of the contributor, and within the framework of the Kyoto Protocol's Clean Development Mechanism (CDM) or Joint Implementation (JI).

Unlike other World Bank development products, the CFU does not lend or grant resources to projects, but rather contracts to purchase emission reductions similar to a commercial transaction, paying for them annually or periodically once they have been verified by a third party auditor. The selling of emission reductions - or carbon finance - has been shown to increase the bankability of projects, by adding an additional revenue stream in hard currency, which reduces the risks of commercial lending or grant finance. Thus, carbon finance provides a means of leveraging new private and public investment into projects that reduce greenhouse gas emissions, thereby mitigating climate change while contributing to sustainable development.

The Bank's carbon finance operations have demonstrated numerous opportunities for collaborating across sectors, and have served as a catalyst in bringing climate issues to bear in projects relating to rural electrification, renewable energy, energy efficiency, urban infrastructure, waste management, pollution abatement, forestry, and water resource management.

The World Bank's carbon finance initiatives are an integral part of the Bank's mission to reduce poverty through its environment and energy strategies. The threat climate change poses to long-term development and the ability of the poor to escape from poverty is of particular concern to the World Bank. The impacts of climate change threaten to unravel many of the development gains of the last several decades. The Bank is therefore making every effort to ensure that developing countries can benefit from international efforts to address climate change.

A vital element of this is ensuring that developing countries and economies in transition are key players in the emerging carbon market for greenhouse gas emission reductions. The role of the Bank's Carbon Finance Unit is to catalyze a global carbon

market that reduces transaction costs, supports sustainable development and reaches and benefits the poorer communities of the developing world.

The World Bank Carbon Finance Unit (CFU) uses money contributed by governments and companies in OECD countries to purchase project-based greenhouse gas emission reductions in developing countries and countries with economies in transition. The emission reductions are purchased through one of the CFU's carbon funds on behalf of the contributor, and within the framework of the Kyoto Protocol's Clean Development Mechanism (CDM) or Joint Implementation (JI).

The World Bank has been supporting these mechanisms since 1999 in a variety of carbon funds and facilities. Carbon funds and facilities under World Bank management have grown from $145m to $2.3b since year 2000. They have demonstrated the role market instruments can play in supporting cost-effective emission reductions and channeling mitigation finance to developing countries.

3.3 International Finance Corporation (IFC)[5] :-

IFC has been supporting business solutions to climate change since 1989, just a decade after the term was coined in a report published by the U.S. National Academy of Sciences. Our first project was a solar energy investment in China, a precursor to dozens of investments subsequently made all over the globe, from Argentina to Uganda.

Since that time, we have become an innovator of clean energy financial products around the world; an active participant in the carbon market, and more recently a source for pioneering analysis of carbon accounting and climate risks.

In each of the last two years, IFC has invested about $1.7 billion in clean energy and climate-friendly projects, with ambitious goals for substantially increasing this amount in coming years.

[5]http://www1.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_Site/CB_Home/Overview/ accessed on July 1, 2012

Today most of our power investments are in renewable energy projects. And all this has been done without the benefit of an international agreement to constrain the growth in greenhouse gas emissions (GHGs) – a situation expected to continue until at least 2015, creating substantial market uncertainty.

But what is clear is that better coordination, more unified and reinforced action, and common strategies are still needed across the public, private and non-profit sectors to move the global sustainable development agenda forward. Given the scale of investment required, partnerships between governments, civil society and multilateral investment institutions are necessary. This is where IFC plays a role by strengthening these ties and building for the future.

IFC's Climate Business Group was created in September 2010 to not only execute climate-related transactions but to coordinate with units across the IFC on identifying better approaches to resource efficiency. Our work now extends across virtually every aspect of our business and complements the full range of our strategic objectives, including:

- Clean energy investments that open markets with first-of-a-kind projects demonstrating technical feasibility, attracting private financing, and encouraging supportive government policy reforms;
- Support to local financial institutions, leveraging domestic resources that would otherwise be unavailable for clean energy investments;
- Working with governments to promote favorable investment climates for climate-friendly investments;
- Developing and promoting innovative financial products that attract greater investment in clean energy;
- Helping private sector clients to identify and respond to financial risks of climate change; and
- Finding opportunities to address both climate change and poverty alleviation such as encouraging low cost energy efficient homes and solar lanterns.

Working together with our clients, donors, and partners, we are creating new models for others to follow. But there is still much more to be done. Moving forward, we

want to systematically identify and respond to investment opportunities and climate risk across sectors such as clean tech, water, and solid waste.

3.4 International Emission Trading Association (IETA)[6] :-

The International Emissions Trading Association (IETA) is a nonprofit business organization created in June 1999 to establish a functional international framework for trading in greenhouse gas emission reductions.

Our membership includes leading international companies from across the carbon trading cycle. IETA members seek to develop an emissions trading regime that results in real and verifiable greenhouse gas emission reductions, while balancing economic efficiency with environmental integrity and social equity.

As of April 2011, IETA comprises more than 155 international companies from OECD and non-OECD countries. IETA has formed several partnerships including, among others, the World Bank, Eurelectric, the World Business Council for Sustainable Development (WBCSD) and the California Climate Action Registry, the Edison Electric Institute (EEI), the Electric Power Research Institute (EPRI) and the San Francisco Carbon Collaborative.

IETA currently has offices in Geneva (Switzerland), Brussels (Belgium), London (UK), Toronto (Canada), Melbourne (Australia) and US offices in Washington, DC and San Francisco, CA.

4. RECENT SCENARIO IN CARBON FINANCE MARKET :-

4.1 State and Trends of the Carbon Market 2012 report published by World Bank[7] :-

Carbon Market grew by 11% year on year to US$ 176 billion and transaction volumes reached a new high of 10.3 billion tons of carbon dioxide equivalent (CO_2e).

[6] "International Emission Trading Association" http://www.ieta.org/overview accessed on July 1, 2012
[7] "State & Trends of the Carbon Market 2012" , World Bank Report, Washington DC, May 2012, http://siteresources.worldbank.org/INTCARBONFINANCE/Resources/State_and_Trends_2012_Web_Optimized_19035_Cvr&Txt_LR.pdf accessed on July 1, 2012

As agreed at 15th Conference of the Parties (COP) under the UNFCCC in 2009, the Copenhagen Accord declared that deep cuts in global emission are required "so as to hold the increase in global temperature below two degree Celsius." It also called for an assessment that would consider strengthening the long-term goal, including "temperature rises of 1.5 degrees." The Copenhagen Accord also invited parties to submit mitigation plan with UNFCCC. To date, 90 countries including 48 developing nations have registered plan with the UNFCCC to reduce emission by 2020. Despite international efforts, the climate change challenge remains daunting and the search for long term solutions continues. The seventeenth Conference of the Parties (COP 17) to the UNFCCC took place in Durban, South Africa in December 2011 without providing any guarantee that the UNFCCC 2°C target will be reached. It was decided in the conference that Kyoto Protocol will see a second commitment period from 2013 until either 2017 or 2020. Over 50 developing countries have now submitted proposal to the UNFCCC to limit the growth of greenhouse gas emission by 2020. These proposal also known as Nationally Appropriate Mitigation Actions (NAMAs), refer to a set of mitigation policies and /or actions that a developing country voluntarily undertakes in an effort to reduce its GHG emissions and report these reductions to the UNFCCC.

4.2 BSE launches India's First Carbon efficient live index called Greenex[8] :-

Climate change is one of the major present-day priorities. Business houses have begun to acknowledge the phenomenon. They are concerned about climate change, and the systemic and sector-specific risks associated with it.

Owing to the high levels of risk faced by countries such as India, the immediate need to shift to a low carbon growth path is clear. In turn, low carbon strategies can only be implemented if the emissions landscape across businesses and its effect on sustainable growth are clearly defined and understood.

[8] "BSE launches India's first Carbon Efficient Live Index called GRRENEX" , http://articles.economictimes.indiatimes.com/2012-02-26/news/31101643_1_first-carbon-efficient-bse-greenex-energy-efficiency accessed on July 1, 2012

In a new development, the BSE has launched the Green Index called Greenex. This is India's first carbon-efficient live index. The index has been developed by the BSE in collaboration with IIM Ahmedabad. It is the second thematic index launched by BSE. BSE Greenex will measure the performances of companies in terms of Carbon Emissions. The index will target socially-aware investors. There are many investors willing to pay a premium for green investments in companies to get better returns. The new index will comprise 20 stocks based on a minimum carbon footprint, market capitalization and turnover. The BSE Greenex will assess the energy efficiency of firms, based on energy and financial data.

This is the first index based on actual performance on the energy efficiency front, rather than stated future plans. According to the BSE, the BSE Greenex is the first step in creating a credible market-based response mechanism here, where both business houses and investors can rely on purely quantitative and objective performance-based signals to assess 'carbon performance'.

The index will meet the growing local and international demand to identify 'green investments' and companies with a strong social responsibility. The cost of carbon-based energy production is increasing. If companies become more efficient and reduce energy costs, there is a chance of higher profitability. The index can be used to develop green financial products including mutual funds, exchange-traded funds and structured products. Further, the index is expected to enable investors to take more informed investment decisions on companies in the energy-intensive sectors. It will help screen companies doing well on the carbon side, as the concerns of climate change is growing among stakeholders.

The index can be used by individual and institutional investors such as asset management companies, pension funds, and insurance companies looking for investments in companies with strong long-term prospects and develop green financial products. According to the BSE, during the pilot runs, this index has performed better than the Sensex. This indicates that companies that can balance energy efficiency and profitability give better returns for investors.

4.3 Carbon Expo – "Carbon markets grew in volume but continues to face uncertainties":-

With around 2500 visitors and media representative participating from 95 countries, the 9th annual Carbon Expo in Cologne, Germany ended on 1st June, 2012 with a strong show of continued commitment from the private sector. Despite financial turbulence, scarce public resources and uncertainty in the carbon market, the attendance remained high at the world's leading emissions knowledge and trading fair. Encouraged by the sign of trust, the event's organizer – The World Bank, The International Emissions Trading Association and Koelnmesse announced the continuation of the fair in 2013 and 2014 in Barcelona and Cologne, respectively. The Expo continues to be one of the most important networking venues and source of knowledge for the carbon market. A total of 199 exhibitors from 67 countries, including private companies, service providers and government representatives from developing countries attended Carbon Expo. More than 2500 people participated in plenary sessions and workshops as well as in over 40 side events on subjects ranging from challenging to implementing projects in developing countries, reforms of the Clean Development Mechanism (CDM) and new market mechanism.[9]

4.4 Rio+20 UN Conference on Sustainable Development (June 2012) :-

The United Nations Conference on Sustainable Development was hosted from June 13 to 22 2012 by Brazil in Rio de Janeiro. Rio+20 was a 20 year follow up to the historic 1992 United Nations Conference on Environment & Development also held in the same city.

The Rio+20 draft on *'The Future We Want'* spells out a common vision that talks about sustainable development that includes economic, social and environmental aspects, poverty alleviation, realization of the UN's Millennium Development Goals by 2015, gender equality, right to food, equal opportunities and education for all and so on. These are broad issues that need to be tackled in great detail but not with a

[9] http://www.carbonexpo.com accessed on 1/07/2012

uniform plan that would apply to all countries and peoples regardless of which stage of growth they're in.[10]

On the last day of the conference Prime Minister of India Manmohan Singh criticized industrialized countries over the issue making available additional finance and technology to help developing worlds reduce carbon emissions saying there is "little evidence" of support for them. Singh also made a strong plea for finding new pathways for sustainable living since the current consumption pattern in the industrialized world are unsustainable. Describing economic development, social inclusion and environmental sustainability as all equally critical as components of sustainable development, Prime Minister Singh said that the task before the world community is to give practical shape and content to this architecture in a manner that allows each country to develop according to its own national priorities and circumstances.[11]

5. CONCLUSION :-

As we have seen in the present paper that we can go for sustainable development generating finance through the *Carbon Finance – Innovative Financing for Sustainable Development*. This model can only be helpful when the developed country extend significant support in the fulfillment of the objectives enshrined in the Kyoto Protocol. Rio+20 Conference on Sustainable Development was organized in June 2012 at Rio de Janeiro, Brazil. In this conference Prime Minister of India, Dr. Manmohan Singh made a strong remark on Industrialized countries saying that they are not providing additional finance and technology to help developing countries to reduce carbon emission. He also said that there is *"little evidence"* of support from these nations.

In northern India, a company called D. Light is distributing thousands of solar lanterns to people without access to energy grid. In northwestern Zambia, a small

[10] http://www.uncsd2012.org/ accessed on 1/07/2012
[11] "Manmohan Singh hits out at developed nations over carbon emissions" http://articles.economictimes.indiatimes.com/2012-06-22/news/32369050_1_sustainable-development-natural-resources-carbon-emissions accessed on June 22, 2012

micro-hydro facility set in the Zambezi River provides electricity to pineapple farmers, allowing them to can and export their crops for the first time. And in Ghana, Toyola Energy, a cook stove manufacturer that sold only a few hundreds units in 2006, is now producing more number of stoves. Each one of these projects is, in part financed by the creation and sale of Carbon Offsets. Carbon Finance helps in subsidizing the green products, improves the products' value proposition by providing additional revenue streams to make them financially viable and available at a lower price point for end users. *Taping into carbon markets requires a long and costly process of documentation, monitoring and verification. With high transaction cost, the potential for failure has prohibited most small scale projects from accessing this complex market.* Because of these constraints, carbon finance is generally better suited for large scale projects such as wind farms, geothermal facilities and waste-to-energy plants that generates a large number of offsets and are easier to monitor. The economics of smaller products - cook stoves and solar lanterns, the types of projects undertaken by Micro Finance Institutions, makes the value proposition less attractive. Other side carbon market is often volatile and it also creates the uncertainty[12].

First commitment of the Kyoto Protocol ends in the year 2012. The seventeenth Conference of the Parties (COP 17) to the UNFCCC took place in Durban, South Africa in December 2011 without assuring that the UNFCCC's 2° C target will be achieved. It was decided in the conference that Kyoto Protocol will see a second commitment from 2013 until either 2017 or 2020. We hope a better, an inclusive mechanism to achieve objectives of sustainable development in the second commitment under the Kyoto Protocol.

[12] Josh Weinstein, *"Innovations & Challenges in Carbon Finance"*, December 14, 2010, http://www.nextbillion.net/blogpost.aspx?blogid=2052 accessed on July 1, 2012