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SIB STUDENTS' ECONOMIC FORUM

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Theme No. 185 : GLOBAL WARMING AND CARBON FINANCE – PART II

What is Clean Development Mechanism (CDM)?

Though non-annex 1 countries are exempted from emission reductions, in order to encourage them to undertake emission reduction projects this scheme has been introduced. Under this scheme emission reductions of projects in non-annex 1 countries can be sold to the annex 1 countries at a price determined by the market. CDM projects in non-annex 1 countries thus will earn additional stream of cash flow. On the other hand the industries in annex 1 countries can reduce their emissions through least cost method –either by reducing the emissions of their projects, or by taking up joint Implementation projects in another annex 1 country where the project cost may be less or by buying emission reductions from a non-annex 1 country. This arrangement provides enormous opportunity for the emerging economies like India. Such projects undertaken in non-annex 1 countries are called CDM projects and the emission reductions generated in these projects are called 'Certified Emission Reductions" (CER). One CER is equivalent to reduction of one ton of Carbon Dioxide. Different gases have different global warming potential (GWP) and reduction of emission of these gases will be converted into carbon dioxide equivalents. For instance, HFC_{23} has GWP equivalent to 11700 times of carbon dioxide and methane is 21 times that of carbon dioxide. Reduction of one ton of HFC_{23} hence will earn 11700 CERs and reduction of emission of one tone of methane will earn 21 CERs.

What is carbon credit?

Certified Emission Reductions (CER) are often referred to as carbon credits. Studies reveal that generally CERs earned from CDM projects in emerging economies are sold over the counter and very less amount of CERs are traded through organized exchanges like European Climate

Exchange (ECX) and Chicago Climate Exchange (CCX) Therefore, details of prices and price index are not publicly available. Nevertheless, it is estimated that the average price of one CER is around $5.

What is the role of Banks in CDM projects ?

As can be seen the CDM projects minimise hazards and reduce waste production and emissions and hence do not generally involve environmental risks and social risks of lending. Besides, these projects are compliant to environmental regulations and would not have to incur cleanup expenses that other projects may have to. As such the credit risk is less. Banks and financial institutions would find it to be a great opportunity to finance CDM projects. CDM projects provide the following opportunities to the banks and financial institutions.

- Financing GHG emission reduction projects.
- Trading in CERs.
- Consultancy and advisory services.
- Financing their existing customers to introduce technological innovations that result in emission reductions, and thus generate carbon credits.

What are the Potential CDM projects?

Energy sector accounts for the largest number of CDM projects. Obviously, energy sector is the single largest consumer of fossil fuel and emitting highest volume of GHGs. Hence any project that generates power by not consuming any fossil fuel and any project that leads to minimising the consumption of energy are eligible for CDM.

Energy Sector: Projects that have potential for earning carbon credits in the energy sector, with examples of projects that have already been registered with UNFCCC (United Nations Framework Convection on Climate Change) are listed below:

- Improving efficiency of power generation.
- Fuel switching in power generation.

Renewable energy

- Hydroelectric projects, windmill projects, Solar power projects, Biogas projects, Bio-diesel projects, generating power from municipal waste etc have potential for earning carbon credits.
- Opportunities for earning carbon credit by improving energy efficiency are plenty in energy intensive industries such as iron and steel, cement, fertilizer, pulp & paper, etc.

Transport

- Conversion of public transport vehicles running on diesel to CNG
- Bio fuels like ethanol and bio-diesel

Others

- Hydroflurocarbons destruction projects
- Nitrous oxide destruction projects

What is the future outlook for CDM in India?

India has made a strong beginning in implementing CDM projects. Nevertheless, given the number of industrial undertakings in the country and natural resources like water, wind and sunlight available in plenty there is enormous scope in this field. SMEs are known for energy inefficiency and emissions. There are several instances wherein many SMEs, often clusters of SMEs have been ordered to be closed on environmental grounds or have been directed to put up costly effluent treatment plants. While CDM projects would make the projects compliant to environmental regulations, it may also generate carbon credits. Renewable energy sources, both in small and large scale, are yet to be fully exploited. Banks and financial institutions can play a proactive role in making our industries sustainable by financing their environment friendly projects, and by doing so they can also do more business with less risk.

Which country is the largest source of global warming pollution?

A Seattle(USA) based research group has found in its survey that Indians care most about carbon emissions. It is found that people in developing countries like India and china show more concern over rising carbon emissions compared to citizens of industrialised nations like U.S, Briton etc. Though USA make up just 4 percent of worlds population, they produce 25 percent of carbon dioxide pollution from fossil-fuel burning- by far the largest share of any country. In fact the United States emits more carbon dioxide than China, India and Japan, combined.

What is the outcome of the conference of G8 nations held at Berlin recently?

The meeting of G8 nations (US, Briton, Canada, France, Germany, Italy, Japan and Russia) and the five 'outreach' developing nations (India, China, Brazil, South Africa and Mexico) have agreed to seriously consider a halving of greenhouse gas emissions by 2050.

The meeting reaffirmed the commitment of the participating nations to the UN Framework convention on climate change and to its objectives. It is matter of some relief that the US finally agreed to join the UN process to combat climate change. The policy paper presented to the G8 countries by the emerging five nations stated unequivocally that the 'greenhouse gas mitigation in developed countries is the key to addressing climate change, given their responsibilities in causing it'. But the declaration by G8 said that the emerging economies needed 'to address the increase in their emissions by reducing the carbon intensity of their economic development'. Developing nations want the cost of fighting the global warming threat fairly shared. The effort is to address the challenge of climate change with out sacrificing economic growth.