



# The Commerce of Climate

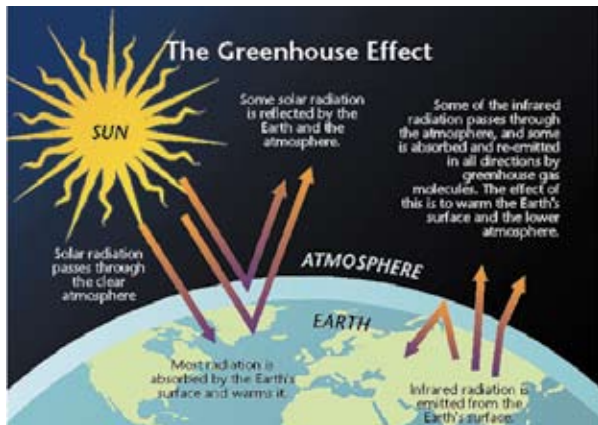
## *A Taxman's Perspective*

### Climate Change

Anthropogenic Green House Gas (GHG) emissions have had a significant impact on the ecosystems as well as the climate particularly after 1970 with the global-average surface temperature rising by about 0.8°C above its level in 1750. Studies have revealed that the warming of the planet is closely linked with the buildup in the atmospheric concentrations of carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>) and other greenhouse gases (GHG). While there are natural emissions of GHG, they are adequately taken care of by the natural processes that are also known as cycles (eg. Carbon cycle, nitrogen cycle, etc.). However, as a result of use of fossil fuel based energy, the emission of GHG has far exceeded what the nature could assimilate. Such exponential increase in the anthropogenic GHG emissions has been the result of economic development and inevitably led by the developed world. They have accounted for the lion's share in such GHG concentration which is contributed by use of fossil fuels (70-75%) and deforestation and other land-cover change largely from developing countries in the tropics. The seemingly modest changes in average temperature experienced over the 20th century have been accompanied by significant increases in the incidence of floods, droughts, heat waves, and

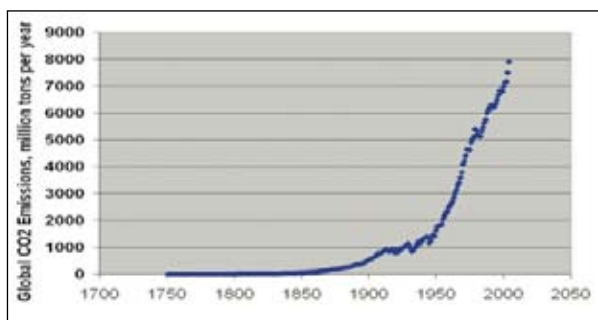
wildfires, particularly since 1970. It now appears that the intensity of tropical storms has been increasing, as well. There have also been large reductions in the extent of summer sea ice in the Arctic, large increases in summer melting on the Greenland Ice Sheet, signs of instability in the West Antarctic Ice Sheet, and movement in the geographic and altitudinal ranges of large numbers of plant and animal species. If CO<sub>2</sub> emissions and concentrations grow according to mid-range projections, moreover, the global average surface temperature would be expected to rise 0.2-0.4°C per decade throughout the 21st century and would continue to rise thereafter. The cumulative warming by 2100 would be roughly 3-5°C over pre-industrial conditions. Accumulating scientific evidence suggests that changes in the average temperature of this magnitude are likely to be associated with large and perhaps abrupt changes in climatic patterns that, far more than average temperature alone, will adversely impact agriculture, forestry, fisheries, the availability of fresh water, the geography of disease, the livability of human settlements, and more.

A 2°C increase in the global-average surface temperature above its 1750 value is likely, for example, to result in up to a 4°C warming in the middle of large continents and even larger increases in the polar



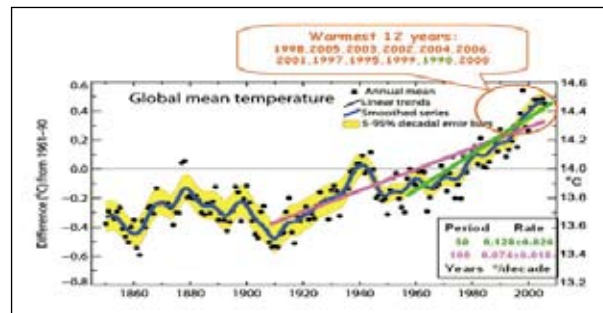
regions. Regional changes will be even more extreme if global average temperatures rise to 3°C or higher. Climate change during the 21st century is likely to entail increased frequency and intensity of extreme weather, increases in sea level and the acidity of the oceans that will not be reversible for centuries to millennia, large-scale shifts in vegetation that cause major losses of sensitive plant and animal species and significant shifts in the geographic ranges of disease vectors and pathogens. These changes have the potential to lead to large local-regional disruptions in ecosystems and to adverse impacts on food security, fresh water resources, human health, and settlements, resulting in increased loss of life and property. The science of climate change is continually reviewed and assessed by the Intergovernmental Panel on Climate Change (IPCC), which was established in 1988 jointly by World Meteorological Organisation (WMO) and United Nations Environment Programme (UNEP).

The IPCC assesses all available factual information on the science, the impacts and the economics of climate change and on the adaptation/mitigation options to address climate change, and periodically issues Assessment Reports. The 4th Assessment Report reiterates the linkage between GHG and global warming after analysing a wealth scientific evidence collected by over 4000 scientists over the world.

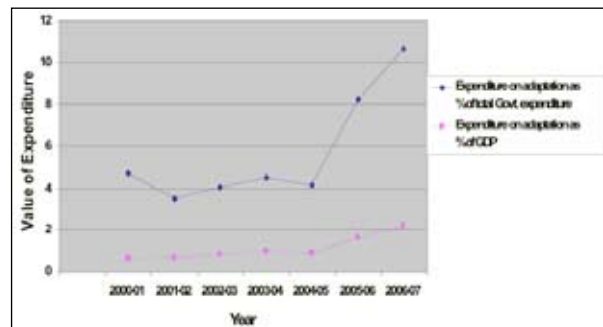


### Climate Change- Mitigation and Adaptation

The effect of growing GHG emissions on climate has now been established beyond any reasonable



doubt. Increase in sea level threatens the very existence of many small island countries and also countries having large coastal zones. Irregular patterns of rainfall have started causing effects on agriculture - some point to such a causation of stagnation in the yields of wheat in the Green Revolution belt with climate change. Therefore, the world recognized the need for not only arresting current and future emissions (mitigation) but also the need to help countries<sup>1</sup> in adapting to the consequences of climate change. Ministry of Environment and Forest, Government of India, estimates that the adaptation cost to the Indian economy has been as high as 2% of GDP. A similar estimate for the world has been documented by what is now famously called the Stern review. While mitigation is being addressed by the global community by a range of measures including market based mechanisms, adaptation issues are yet to be addressed that reduce or moderate the existing effects of climate change on developing countries.



### Global Climate Change Agenda

The climate change became an important agenda for global negotiations in early 1990 after the release of the first IPCC report. The issue was agreed to during the United Nations Conference on Environment & Development in 1992 in Rio. The United Nations Framework Convention on Climate Change (UNFCCC) was negotiated and came into force in 1994. The cornerstone of the convention is the principle of Common But Differentiated Responsibilities (CBDR) for countries. That is, the developed world, accounting for majority of GHG emissions, were required to take emission reduction targets while the mitigation efforts of the developing world will be supported by appropriate technology, financing and capacity

building measures. In 1997, Parties to the Convention adopted the Kyoto Protocol (KP) that commits the developed country parties (referred to as Annex-I parties) to return their emissions of GHG to an average of approximately 5.2% below 1990 levels over the period 2008-2012. Amongst the developed countries, USA and Australia\* decided not to ratify the Protocol which came into force on 16th February 2005. The first commitment period of KP has commenced in 2008 and will be upto 2012. The post 2012 international regime is currently under negotiation. The KP evolved a market based mechanism for mitigation by use of clean technologies in developed and developing world, the latter being stimulated by the Clean Development Mechanism (CDM). In sum, KP created a market for emission reductions and trading which is also known as carbon market.

\* Australia signed the convention in 2007.

### The Global Carbon Market

The KP created a market by:

- Creating a demand for emission reductions by countries (Annex-I) and their industry through a legal emission reduction target.
- Stimulating supply of clean technologies for the demand so created; and
- Enabling trading of emissions particularly when the cost of abatement is higher than the market price of carbon.

The demand pull market has been made possible as a result of the application of CBDR and the resultant legally binding enforcement of emission reduction regime. Three market based instruments to facilitate this are:

- ▶ CDM -for investments in non-Annex-I countries (Developing Countries) of clean technologies resulting in GHG emission reductions in a measurable, reportable and verifiable manner. The resultant reduction of GHG is quantified as a Certified Emission Reduction (CER) by the UNFCCC (CDM Executive Board).
- ▶ Joint Implementation (JI)- for trade of emissions at the project level between developed country industries ; and
- ▶ Emission Trading (ETS)- for trade of emission or allowances at country level.

All these instruments are based on transparent measureable, reportable and verifiable emission reductions and are regulated under UNFCCC. There are similar schemes in other countries like USA, Australia, New Zealand, etc.

While JI and ETS are at present not relevant to a developing country like India, CDM revenues are expected to increase, particularly from FY 2006-07

onwards at least till 2012. According to the UNFCCC<sup>1</sup> statistics, the expected CERs by 2012, based on the current pipeline of projects, is 2.7 billion. Currently CERs are being traded at a cost of € 10 per CER thereby a market of € 27 billion worldwide. The present share of India is around 10% in the global CER market- given that there is a thrust by the Government and Bureau of Energy Efficiency (BEE), the market share may reach about 20%. Thus, by 2012, around €5 billion of CERs will accrue to persons in India every year for the crediting period of their individual project. Presuming a crediting period of 7 years and an overlap before 2012 of 2 years, the period between 2012-2017 could see income from CERs of € 25 billion or around Rs 30,000 crores annually. The tax implication, given that the first commitment period has commenced, could be of the order of around Rs 10,000 crores from this alone. Tax administration must gear up for this challenge - understanding the mechanics of the transaction involved hold the key.

### Taxation Riddle of CERs

The process of securing CERs presents a unique preposition under the extant taxation regime. This is because of the following facts:

- Most of the projects which become or may become eligible for securing CERs are infrastructure projects, e.g. supercritical power plants, renewable energy projects, etc.
- Such projects (as mentioned above) avail of the benefits of tax exemption under chapter VI of the Income Tax Act, 1961 - particularly section 80-IA
- All the above infrastructure projects are governed by a cost plus regulatory regime where tax is also a pass through.
- Income from CERs is additional to the normal business income of such assessee.

Thus, an infrastructure project that becomes eligible for CER could legitimately seek regulatory approval to include it as a part of its annual revenue requirement. The regulatory could then take into consideration the additional revenue stream while passing the tariff order under the present cost plus regulation. Thus, while the tariff may get moderated, the entire CER revenue could be posed for exemption u/s 80-IA as normal business income. While it may be argued that there is nothing wrong with this articulation, the question that needs to be answered is whether CERs are indeed part of a normal business income to become eligible for a possible interpretation as highlighted above. The answer to the question is in the negative as argued in the following section.

### Legal Status of CER

The answer to the question posed in the previous paragraph, according to the author, holds the key to

the determination of the taxability of CERs. In order to do so, the process of issuance of CERs must be examined which will determine the legal status of it. Some authors have felt that CER is a commodity or a good<sup>2</sup> as it fulfills all the legal tests. However, the author differs entirely from this point of view as it goes only by the posterity of assignment of CERs to a project which has all the attributes of a good namely utility, capability of storage and transfer. While it may be correct for some, it does not take note of the germane fact of the process and manner of accrual of CERs which is completely divorced from the command and control of the project developer. The following is the mechanism of issuance:

- Investment in developing country in a clean or low emission project by an investor. This is part of his normal business undertaking.
- Monitoring and verification of emission reduction under an approved monitoring and verification methodology of the CDM EB - situated in Bonn.
- Validation of emission reduction by accredited Validators appointed by the CDM EB
- Registration of CDM projects, after recommendation of the Designated National Authority (DNA) (in India's case the Ministry of Environment and Forest) by CDM EB. The registration is after a due diligence by the EB and the CER is issued only after the registration.

It may be added that mere investment in low emission project or MOEF approval or even validation in India does not assure the issuance of CER. The due-diligence of the CDM EB is the critical determining factor. This is duly corroborated by the fact that over the last two years, the EB rejected almost 8-9% of the projects and in 2007 gave approval on the automatic route to only 57% of the projects posed to it. As this transaction happens outside India and is linked to a project which has an independent existence and is manufacturing a commodity or good, categorizing CERs as goods is not appropriate. This is further supported by the fact that CERs is not the primary outcome of the eligible project, it is a derivative of the fact that for producing a good or commodity, cleaner or low emission technology is used.

Moreover, the methodology followed by an assessee for issuance of CER is governed not by the norms of the business that has been set up but by a completely different set of methods and norms that are independent of it. Furthermore, CERs are issued periodically based on monitoring, verification and validation. It is possible that CER issued periodically may differ and may not have a correlation with the business outcomes or what was issued earlier. Therefore, CERs are intangible rights that accrue outside India and the income accrued as a result of transfer of CERs needs to be treated

as income from other sources. In the opinion of the author, such income from CERs is not covered under chapter VI A of the Act.

CERs in India are yet to be regulated. There have been reports of CER trading on Multi Commodity Exchange, but its legality stems from a misplaced notion of it being a commodity or good. Trading of CERs in India seems inappropriate given that the demand for them is in Annex-I countries. Trading of CERs by such countries in India poses a high political risk given the absence of a regulatory environment.

Given this view point on the treatment of CERs as income from Other Sources, and the fact that the primary demand for them is in developed countries, there could be issues of transfer pricing. The added complexity is the fact that the market for CERs in the developed countries is speculative and also is one of the many other alternatives (like JI, ETS, etc) to fulfill the legal emission reduction target of the Annex-I country parties. There could be a possibility of under-pricing of CERs in the garb of hedging for CERs transaction between related parties or forward trade at prices that do not reflect the market valuation. The need for constant monitoring of carbon markets in the west cannot be overemphasized.

### The Way Ahead

The market based Climate Change mitigation instruments hold immense promise for the domestic industry- not just in accessing state of the art technologies but also additional income by way of CERs. However, absence of any regulatory oversight on these transactions, debate over the legal status of CERs, lack of finality over taxability of the revenues and possible transfer pricing issues pose challenges that the tax administration must respond forthwith. Clarification on the legal status of CERs, clarity on the taxation issues relating to CERs and some incentives are necessary to unlock the immense potential that remains to be tapped in India. Leadership of the public sector in creating the market for CDM, particularly by aggregation and bundling could see a crowing-in of private investment to enhance the share of CER revenues of India globally.

### REFERENCES

- 1 www.unfccc.org
- 2 Agarwal, Sanjay K: 'Accounting and Taxation Aspects of Carbon Trading'; The Chartered Accountant (October 2006) pp 510-513. The author refers to the decisions by the SC TATA Consultancy Services v. State of Andhra Pradesh [2004] 141 Taxman 132/271 ITR 401 and BSNL v. UOI [2006] 152 Taxman 135/282 ITR 273/145 STC 1.



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