

www.pwc.com

*Emerging truths from
Durban (UNFCCC COP
17) – Realities and
lessons for industry*

12th April, 2012

Discussion Forum on “West
Bengal – Towards Sustainable
Growth: Perspectives on Energy
Policy and Environmental
Realities – A Balanced Approach”

pwc

Agenda

Externalities and Priorities and Vulnerabilities

Key outcomes at Durban

The report card before CP2

Critical issues in climate negotiations

Prices of carbon credits

Kyoto CP2 CDM?

India's voluntary actions

Climate Finance – national and international

Realities and lessons for industry

***Emerging truths from Durban (UNFCCC COP 17) –
Realities and lessons for industry***

Aspiration for a sustainable,
inclusive, low carbon growth
and the international Climate
Change Agenda at UNFCCC -
an inconvenient truth?

(who pays for equitable sustainable development?)

Realities and lessons for industry

- Tread carbon credit market with great care – only renewable PoAs maybe
- Take advantage of RECs and PAT scheme
- Take advantage of SAPCC and National schemes for EE as well as adaptation
- Innovate new businesses ideas in water, agriculture, food, energy efficiency and renewable energy
- Watch carefully for trade embargoes and international climate finance to lobby hard at Climate negotiation forums

Externalities, Priorities, Vulnerabilities

- Bali Action Plan and Road Map – Long Term Cooperative Action
- Cancun agreement - mitigation, adaptation, technology, and finance : mere consensus
- Durban – **Significant in fulfillment of the Bali Road Map** : 2nd commitment period of the Kyoto, Green Climate Fund, Technology Mechanism and Adaptation Framework, Durban Platform – post 2020
- The Earth Summit in Rio in June 2012 will take stock of sustainable development priorities globally

Priorities and Vulnerabilities

- 2009 State of the Environment Report by the Ministry of Environment and Forests (MOEF) - five key challenges faced by India, which are climate change, food security, water security, energy security, and managing urbanization
- India's Twelfth Five Year Plan has as one of its key pillars, a low carbon inclusive growth.
- Climate change vulnerabilities – long coastline, agriculture, water, food security, extreme events, growing energy demand and oil import bill, rural population without grid electricity

Key outcomes at Durban

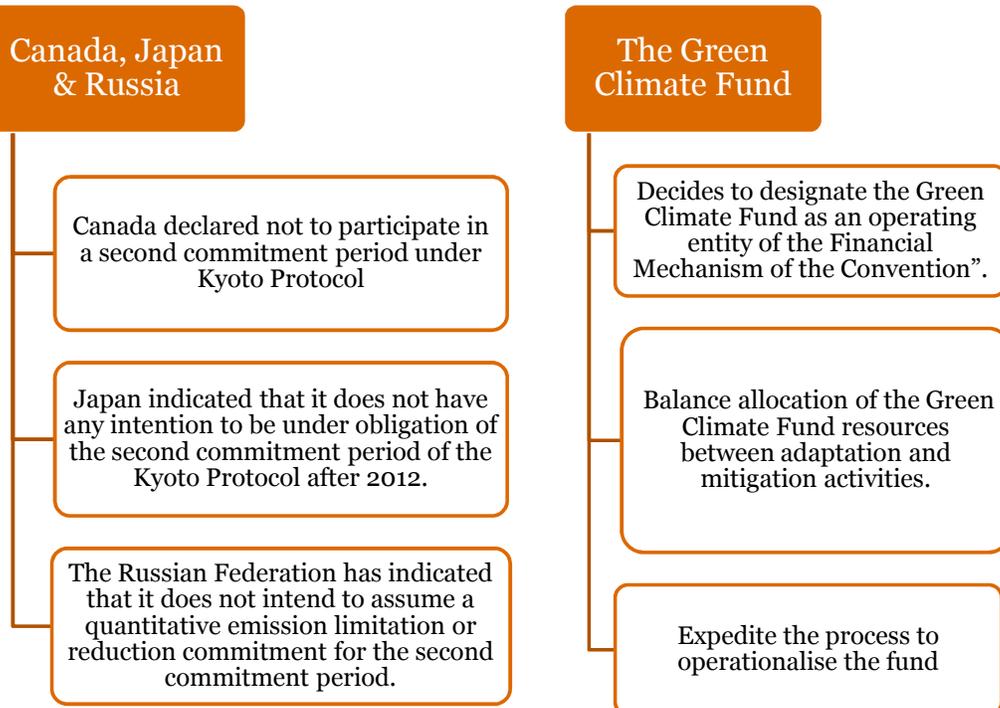
- Second commitment period of the Kyoto Protocol, which will begin on January 1, 2013 and end either on December 2017 or December 2020
 - The quantified emission limitation and reduction objectives (QELROs) for developed country Kyoto Protocol Parties will be determined during 2012.
- Durban also made significant progress in operationalization of Cancún agreements related to GCF and the Adaptation Framework.
- Technology Mechanism and its components viz. Climate Technology Centre and Network (CTCN) and Technology Executive Committee (TEC), established at Cancun.

PwC

Key outcomes at Durban

- Durban Platform to discuss the post 2020 arrangements - post 2020 arrangements would be finalized by 2015 and implemented from 2020.
 - India played a crucial role : option of ‘an agreed outcome with a legal force under the Convention’.
 - 2020 arrangements is firmly rooted in the Convention and all its established principles including CBDR and Equity apply.
- Progress was made in Durban on issues relating to Reducing Emissions from Deforestation and Degradation and Sustainable Management of Forests (REDD+)

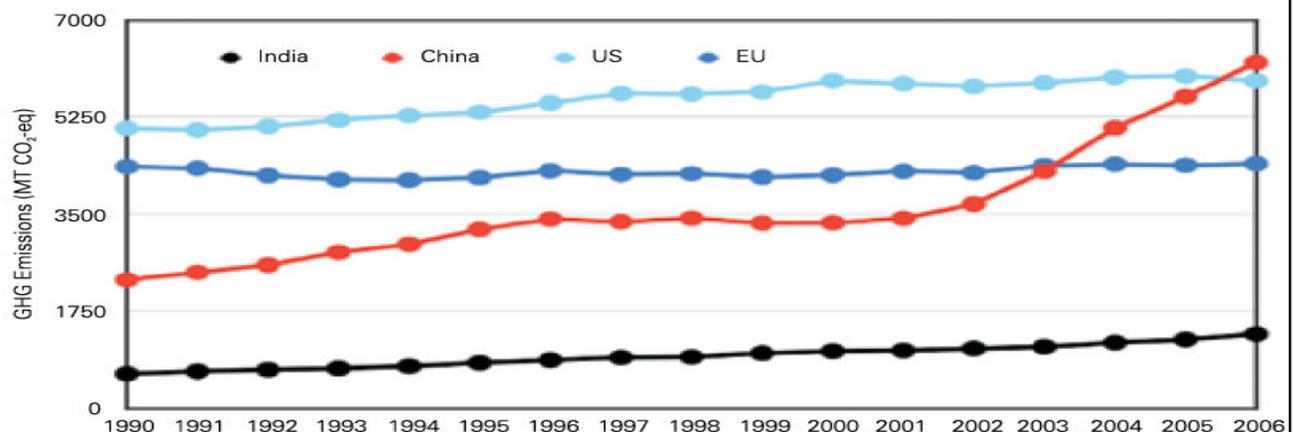
Recent development and carbon market price trend

Durban Outcome

The report card before CP2 shows that it is the developing countries who have reduced...

- Historical responsibilities: Percentage contribution to cumulative emissions from 1900 to 2005 – India is around 2.5 % whereas US – 30 EU 25, China 9, Russia – 8, Japan 4.5
- Per capita – US 18 MT, Australia Canada 16, Russia 15, nethernalnds 11, India <2
- The Kyoto Protocol target for developed countries (individually or jointly) to reduce overall emissions by an average of 5 per cent below 1990 levels in the first commitment period (2008-2012).
 - Instead of reducing the developed countries increased by 8.10% on an average
 - Most developing countries, on the other hand, have reduced by more than 5% per annum in the same period

Growth of Total CO₂ emissions of select countries



The IEP estimates that the India's primary energy supply will need to increase by 4 to 5 times and its electricity generation capacity by 6 to 7 times of its 2003-04 levels to deliver a sustained growth rate of 9 percent through 2031- 32 with primary energy supply growth of around 5.8 percent per year. Commercial energy supply would need to grow faster at about 6.8 percent per annum as it will incrementally replace non-commercial energy over this period.

PwC

Prices of carbon credits have dropped drastically Is it worth it?

CER OTC Price Assessment

CDM – 776/3797 projects 124 million issued (around EU 1.24 billion)

NEWS

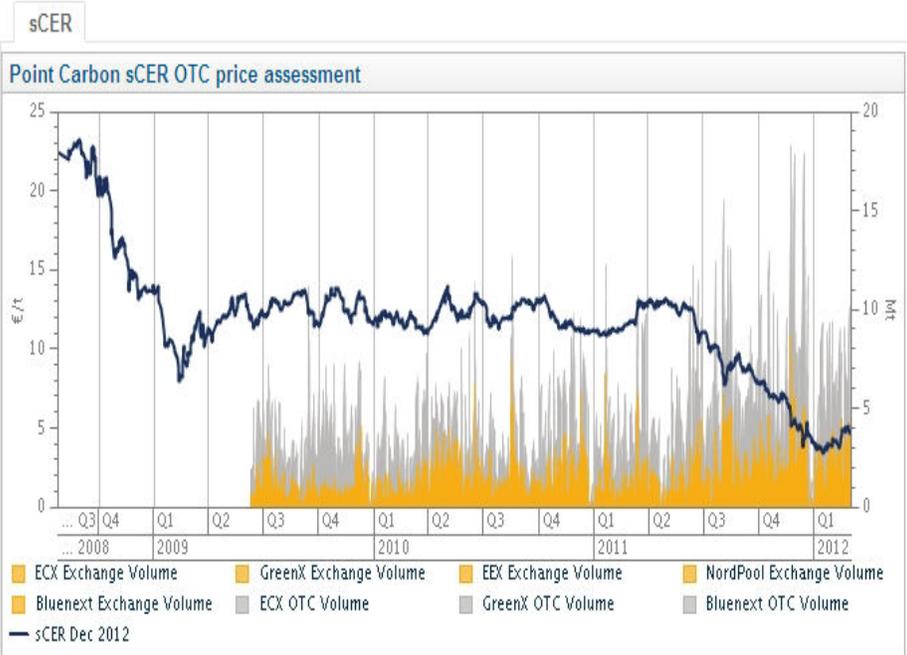
Latest news

- Europe
- North America
- Asia-Pacific
- Africa and Latin America
- Markets
- Policy
- Corporate
- All news

Publications

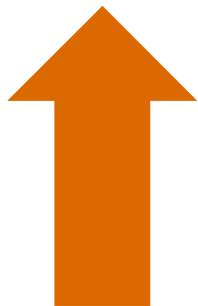
- Carbon Market Daily
- Carbon Market Europe
- Carbon Market North America
- Carbon Market

Pw



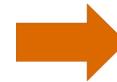
Recent development and carbon market price trend

Carbon market : Durban versus EU debate

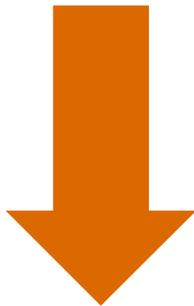


Durban outcome

- Agreement to work on a global climate change agreement by 2015 and this will come into effect and be implemented from 2020.
- The second commitment period under the Kyoto Protocol shall begin on 1st January, 2013 and will end either on 31st December, 2017 or 31st December, 2020.



CDM project will continue following the UNFCCC guideline during the second commitment period



EU declaration

- In 2009, the EU banned from its Emissions Trading Scheme the use of Clean Development Mechanism (CDM) credits from projects registered after 2012 in all but the least developed countries, in order to encourage emerging economies to take tougher climate action.



Significant market uncertainty risk for CERs from the post 2012 registered CDM project

CDM – only PoAs make sense

- Would PoAs be important in Renewable even at this price?
- PoAs are only attractive because of the directive of EU to allow new CPAs to be added to the PoAs registered before 2012. It is the only window of opportunity for project conceived after 2012.
- Only the Japanese BOCM (with Japanese technology) appears attractive as it would guarantee CER revenues for the crediting period and investors can make more informed decision. This would address the concern of price fluctuations in CERs and it impacting the project returns. Maybe Australia later on...

PwC

India's voluntary action

- Per capita emissions in 2031 would stay < 4 tonnes lower than global per capita emission of 4.22
- NAPCC – mitigation and adaptation India has announced a domestic goal of reducing the emission intensity of its GDP by 20-25 per cent of the 2005 level by 2020.
- BEE – 7665 MW savings in 4 years of the 11th plan
- Building Codes

PwC

India voluntary actions

- Perform Achieve and Trade – maybe for all industries someday! Energy efficiency will remain an important driver in the national context
- Planning commission technology sector reports
- Lower carbon sustainable growth be a central element of our Twelfth Five Year Plan.
- Power Plants – 60% of coal based thermal would be based on supercritical technology
- RECs are highly attractive as compared to CERs (carbon credits) and this is evident from the upsurge in investment into wind in this financial year.

PwC

Climate Finance - international

- The UNFCCC has estimated US\$ 200-210 billion in additional annual investment in 2030 to return GHG emissions to current levels.
- US\$ 28-67 billion for adaptation in developing countries.
- Developed country will provide finance, transfer technology to developing country (Article 4.3, 4.5, 11.1)
- Developing country efforts will be contingent on the success of developed country assistance to them as above. Economic and social development and poverty alleviation are overriding priority of the developing country (Article 4.7)
- Important to watch : Reports including that of the High-level Advisory Group on Climate Financing and the report on mobilizing climate finance for the G20 and the assessment criteria in these reports

PwC

Climate Finance - National

- The Prime Minister's Council on Climate Change assesses the financial cost of actions proposed in the National Missions. Nationally Appropriate Mitigation Actions (NAMAs), policies, and programmes and estimate the financial requirement
- National Clean Energy Fund (NCEF) fed by a cess on coal at INR 50 per ton introduced in 2010.
- SAPCC budgets : Example : 17,000 crore over a period of five years for the state of Odisha.
- Estimated 235 '000 crore needed for all the missions in the 12th Plan

Realities and lessons for industry

- Tread carbon credit market with great care – only renewable PoAs maybe
- Take advantage of RECs and PAT scheme
- Take advantage of SAPCC and National schemes for EE as well as adaptation
- Innovate new businesses ideas in water, agriculture, food, energy efficiency and renewable energy
- Watch carefully for trade embargoes and international climate finance to lobby hard at Climate negotiation forums

THANK YOU

surojit.bose@in.pwc.com

© 2012 PricewaterhouseCoopers. All rights reserved. "PricewaterhouseCoopers" refers to the network of member firms of PricewaterhouseCoopers International Limited, each of which is a separate and independent legal entity.

Critical issues in climate negotiations

- SIDS and LDCs have lobbied and India's climate change vulnerability has gone unheard – long coastline and underdeveloped regions.
 - India's per capita GDP is lower than SIDS and LDC and India lower per capita GDP and emissions than SIDS
- Equity, trade and technology–related intellectual property rights (IPRs) “equitable access to sustainable development” while working towards a global goal of climate stabilization – agreed in Cancun
- Developed countries to assist developing with technology, finance and capacity building in order to work towards climate mitigation – UNFCCC Article 4.3, 4.5, 4.7 and 11.1
- Arbitrary action – against UNFCCC principles : global tendencies to erect protectionist barriers – inclusion of civil aviation emissions in EU ETS – multilateral framework does not allow such unilateral and sectoral actions

PwC

Critical issues in climate negotiations (continued)

- Technology transfer and IPR issues not sorted out as declared in BAP : “accelerate deployment, diffusion and transfer of affordable environmental technologies”. – NAMA and Adaptation would not happen at the pace intended only 2.7/30 bn US of Copenhagen Fast Start finance mobilized and that too for SIDS and LDCs and Africa
- GCF Long term finance of US 100 per year bn by 2020 – aviation tax as a source is a concern; Advisory Group on Climate Change Finance (AGF) Report – considers medium price of USD 25 per ton to raise this money, how the incidence of global tax, offsets and net incidence on developing nations would shape is to wait and see
- India’s concerns conversion of the targets of the second commitment period of the Kyoto Protocol into unconditional quantified emissions limitation and reduction objectives (QELROs)?

Lest we forget - our vulnerability to Climate Change

Climate change is impacting the natural ecosystems and is expected to have substantial adverse effects in India:

- mainly on agriculture on which around 58 per cent of the population depends for livelihood
- water storage in the Himalayan glaciers which are the source of major rivers and groundwater recharge
- sea-level rise, and threats to a long coastline and habitations
- increased frequency of extreme events such as storms, floods, and droughts
- India's food & water security problems
- critical challenge of meeting its rapidly growing energy demands - 80 per cent imports for crude oil requirements
- large section of the rural population is still not connected to the grid or efficient modern cooking fuel sources

Kyoto CP2 CDM?

CDM is a flexible mechanism under the Kyoto Protocol

CDM reform : PoA, suppressed demand (Africa), materiality and stakeholder engagement, training, countries with < 10 projects would be favoured, CDM policy dialogue has been launched

- EE and renewable energy based electrification in areas without grid connection
- First of its kind and assessment of common practice
- Significant deficiency in validator's report postponed, or even the formulation of an appeals process

-
- NMEEE – PAT (700 industrial units and achieve a saving of almost 17,000 MWs of energy by 2017) – market transformation, financing, economic development also considered – approximately a 100 million tones of emission reduction targeted
 - EC Act – norms and ECBC
 - Renewable energy – EA 2003 , NEP 2005, Tariff Policy (TP) – mandate : REC and RPO

THANK YOU

© 2012 PricewaterhouseCoopers. All rights reserved. "PricewaterhouseCoopers" refers to the network of member firms of PricewaterhouseCoopers International Limited, each of which is a separate and independent legal entity.