INDIA GHG PROGRAM

Promoting profitable, sustainable and competitive businesses

Emerging Climate Finance Opportunities for Indian Businesses: Who Owns the Future?

DISCUSSION BRIEF

Introduction

The new international agreement on climate change that was adopted at Paris in December 2015 engenders a sense of optimism for many including businesses. The 'Multilaterism' in Paris negotiations proved a success in ensuring progress towards the global goal of keeping warming below 2 degree Celsius, and aiming for 1.5 degrees. Countries including India put forward their Intended Nationally Determined Contribution (INDC)[1] to the UNFCCC, giving rise to political recognition of the need to raise and expedite the provision of climate finance for action.

For India alone, fulfilling its INDC commitments would entail finance requirements of at least USD 2.5 trillion (at current prices) between now and 2030 to implement all its planned actions.[2] In addition, the enduring regime of a five year review for countries to progressively increase their climate efforts, would mean (a)increasing financial requirements as well as (b) increasingly enhanced role for all stakeholders including industry in meeting the progressive mitigation/adaptation goals of the country.

TERI in collaboration with WRI India and CII convened a roundtable discussion on 'Emerging Opportunities for Indian Businesses in the Evolving Climate Finance Scenario' at Delhi in January 2016 under the auspices of the India GHG Program.[3] Representatives from government, industry, and civil society organizations

Highlights

- COP 21, Paris: Climate Finance Implications for Industries
- International voluntary initiatives on climate finance: impact on the competitiveness of Indian industry
- How well is the Indian Industry placed to formulate effective models of growth
- Formulating effective market models for low carbon transition
- Role of innovative collaborations for industry to take up leadership in key initiatives.
- Policies that make climate action in India business friendly

1 a) Reduce emissions intensity of its GDP by 33 to 35 per cent by 2030 from 2005, b) To achieve about 40 per cent cumulative electric power installed capacity from non-fossil-fuel-based energy resources by 2030, and c) Create a carbon sink of 2.5 to 3 billion tonnes of CO_2 equivalent through additional forest and tree cover by 2030.

2 India's INDC submission to UNFCCC, October 2015

3 India GHG Program (IGHGP) is a collaborative initiative of WRI India, TERI, and CII with primary goal of promoting a culture of scientific GHG accounting and management in the Indian corporate sector. For more details please refer to indiaghgp.org.

The India GHG Program aims to promote profitable, sustainable, and competitive business environment in India by mainstreaming measurement and management of greenhouse gas emissions. The program is actively promoted by

WRI INDIA teri CII Confederation of Indian Industry

This Discussion Brief has been prepared by **Ms Swati Agarwal**, Research Associate, TERI

deliberated upon the role of Indian Industries in accessing climate finance for meeting national goals. The workshop was timely in that post-COP and post India's INDC submission, Indian industry representatives sought a platform for deliberations with policy makers, premised on the expectations that Indian industry had from the emerging climate finance scenarios both nationally and internationally. Under the UNFCCC provisions for climate change actions that developing countries undertake, the agreed full incremental costs have to be met by developed countries primarily through the financial mechanism under the Convention. For now, the only significant international financial institution under the financial mechanism is the Green Climate Fund (GCF). Opportunities mapping for Indian industries to access this fund was also one of the pillars of discussion in the roundtable.

This brief is made on discussions and recommendations made during the workshop where Industry participants sought directions on (a) the nature and channels of finance and support that are emerging, (b) where are they likely to receive support from, (c) how can the Indian government, government led organizations and financial institutions help in accessing finance domestically and internationally, and (d) what is roadmap that the government of India is envisaging for industry, following India's INDC submission. Indian industries were aware that it is prudent, progressive and timely that there emerges greater clarity on the potential roles Indian industry can play in the emerging trends to safeguard its global competitiveness.

COP21, PARIS: CLIMATE FINANCE AND INDUSTRY

High hopes were vested on the Paris agreement by industrial groups worldwide. But as George Monbiot, environmental and political activist put it in the Guardian: *"By comparison to what it could have been, it's a miracle. By comparison to what it should have been, it's a disaster."* This is true specifically pertaining to the unfinished agenda of Climate Finance for Climate Action. There was consensus that enough generality is built into the Paris Agreement regarding climate finance to allow for multiple sources and interpretations. Some directions that can be sought pertaining to industries emerging from the Paris agreement are:

Opportunity: Opportunity to broaden source pool for climate finance by encouraging all countries to provide public funding. Larger the pool, higher will be chances to seek available funding for low carbon initiatives and adaptation outside fiscal provisions.

Challenge: Paris lacked in sorting out how adequate funding will be made available (which countries will be delivering how much and by when) in a reliable manner. Shifting timeline of the 100 billion $ commitment per year by 2020 till 2025 in the new agreement weakens prior climate finance commitments.

Opportunity: To provide predictability on climate finance, developed countries will ex-ante communicate every two years on projected levels of climate finance to be provided to developing countries. Regular updates of this nature will signal how much finance is available to make low-carbon investments.

Challenge: Disappearance of the principle of 'new and additional' from the negotiating text will enable developed countries to label all sorts of international funding as climate finance, bulk of which is likely to comprise of commercial loans/finance. Project development and profitability will be impacted depending upon the nature of funding. Lack of clarity in this area has left Industries yearning for clear policy signals.

Opportunity: The Decision text Calls for a new market mechanism enabling cooperation including emission reductions in one country to be counted toward another country's NDC, potentially posing the way for global and regional carbon markets.

Challenge: Clear modalities regarding mechanism are not available.

BIG TICKET PLAYERS

Global Solar Council: Launched by global industry trade associations together (including India) to remove all solar trade barriers by 2020.

International Solar Alliance: Common platform for cooperation among solar resource rich countries with a view to reducing the cost of finance, technology and to unlock 1 trillion USD of investment by 2030 for 1 terawatt of solar power for immediate deployment. Global CEO's of energy companies and investor groups have welcomed this initiative.

Mission Innovation/Breakthrough Energy Coalition: 20 country governments seek to double government-directed clean energy R&D investment over next five years. In response, 28 investors from 10 countries formed the breakthrough energy coalition to make an unprecedented commitment to invest patient capital in early stage technology developments.

Portfolio De-carbonization Coalition: 25 investors committed to decarbonize 600 billion USD worth of their portfolio, categorically refraining from investing in companies with more than 30% of sales/energy creation from coal, double exposure to renewables, as well as to introduce carbon budget for their portfolios.

Divest-Invest Movement: More than 500 institutions representing over 3.4 trillion USD in assets under management have made commitments to divest away from carbonized portfolios.

Green Infrastructure Investment Coalition: investors, governments and development banks to help increase the flow of institutional investor capital to green infrastructure globally.

Energy Unlocked: A market-building initiative aimed at fostering innovation and the ecosystem of new energy actors. This will provide a platform for new market entrants and demand side innovators to find investments, customers and build their ecosystem partnerships.

Energy Efficiency Drive: More than 100 banks and a group of investors with close to 4 trillion USD assets under management have signaled intent to increase energy efficiency project lending in their portfolios.

International Voluntary Initiatives on Climate Finance: Impact on the Competitiveness of Indian Industry

International investor organizations, financial institutions, private investors and industry – all affirmed the call of low carbon investments during COP21. Despite the lack of clear directions to industry on climate finance within the new agreement, multiple new initiatives were launched by industries/investors voluntarily. Four big multilateral development banks – the World Bank, Africa, Asia and Inter-American Development Banks have committed to substantially scale-up finance for climate action to over 30 billion USD till 2020. In India, Yes Bank, a private sector bank has committed to mobilizing 5 billion USD through lending, investing and raising capital towards activities under India's INDC. Cumulatively, the agreement at Paris has put nearly 22 trillion USD of revenues at risk by 2040 for the fossil fuel industry, majority of which is for the oil sector.[4] Moreover, risks to these vary widely, not only in terms of the stringency of carbon regulations, but also in terms of how individual companies are positioned with respect to fossil fuels. For example, higher demand for efficient gas turbines puts some companies in a position to

4 Barclays' equities team has analysed the implications for the energy industry, whose assets and business strategies could see dramatic impacts from conference developments. The bank's analysis is based on using IEA's World Energy Outlook 2015 to determine baseline demand (under the New Policies Scenario, IEA's reference case) and comparing it to the 450 Scenario, which models energy consumption patterns under a global framework to keep carbon dioxide under 450 ppm, which is understood to prevent global climate change from exceeding an average of 2 degrees Celsius in warming. When comparing global oil demand between the New Policies Scenario and the 450 scenario, Barclays breaks down the risks for the oil sector as follows:

a) $16.4 trillion in lost revenue from lower sales of conventional crude oil

b) $3 trillion in lost revenue from lower sales of natural gas liquids, and

c) $3 trillion in lower sales of unconventional crude oil benefit over others. Some of the oil majors in the world have been preparing themselves for a global carbon price for some time, and have already put significant investments into both renewables and alternative fuels.

For India, while it is clear that investors have already started to rethink their portfolios in favor of low carbon projects, there emerges a clear market signal for Indian businesses to reform their behavior as per the emerging trends to retain their comparative advantage in the globally changing scenarios.

Some opportunities that emerged for Indian industry from the global investor movement are:

- Investment towards tackling specific barriers to investment such as small project aggregation, green infrastructure, etc.
- Potential to engage with government and international institutions directly, indirectly to strengthen their cooperation in private sector activities.
- Take first movers advantage through de-carbonizing its portfolio in the direction of the global movement such as investments in solar sector, energy efficiency sector etc.
- Seek opportunities for investment in sectors which have not received much traction through conventional channels of finance such as in clean energy R&D.

WHAT CAN PRIVATE SECTOR DO TO ACCESS FUNDS FROM GCF?

Demonstrate good project ideas: a project which can leverage funding that the GCF brings in. This may involve bundling the fund with the national funds such as National Clean Environment Fund (NCEF).

Robust Monitoring, Reporting and Verification: Monitoring and verification will be key in sourcing GCF funding.

Build Co-operation among industry peers: Magnitude of ideas needs to demonstrate transformation. Ability of the project idea to transform a sector and not project specific ideas like in case of CDM.

'Proven' Concepts: GCF would favor projects that are somewhat 'proven' in delivering results which reduces the risk of project failing post funding.

Develop projects having competitive advantage: GCF seeks to fund projects that are able to demonstrate their competitive advantage in the country in the long-run.

Initial Result Areas of Fund: The GCF's PSF targets renewable energy, transportation, energy efficiency, agriculture and water efficiency, forestry and land use, waste management, and urban planning.

Other potential areas: Include areas covering project risks/barriers to Indian industries uptake, such as high cost of hedging in international finance.

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- Enhance its preparedness to undertake low carbon initiative.
- Smoothen the marginal risk of investment over time in low carbon initiatives.

Channels of Climate Finance available to Indian Industries

Green Climate Fund

Under the international finance mechanism for incremental funding, Green Climate Fund (GCF) is the most significant mechanism at the moment. The GCF has close of 10.2 billion USD of committed finance of which 5.5 billion $ has been realized. The fund aims to disburse this funding equally between the adaptation as well as mitigation projects in developing countries. This will be through ramping up of 2.5 billion $ each year, with significant chunk of it going to the private sector. In this case, it is essential for India and Indian private sector to be organized and prepared to be able to put forward innovative project plans in terms of scale, size, and technology.

One of the private sector friendly features of the Green Climate Fund is its Private Sector Facility (PSF). The PSF's mandate is to fully engage private sector investors, developers, entrepreneurs, corporations, and small and medium sized enterprises (SMEs) in climate-sensitive and resilient projects throughout the developing world. It aims to mobilize at scale private funding flows from local, regional, and international commercial banks and institutional investors (i.e. insurance companies, pension funds, and private equity funds). To facilitate industries to develop fundable proposals and access climate finance from global funds, NABARD is conducting capacity building programmes to train agencies, private sector, rural banks, and government institutes to develop projects, products, programmes which can be taken up for funding. ,

Some recommendations to Indian industry for accessing the fund are:

- to assume a proactive role in developing implementable projects in consultation with the NIEs, government and financial institutions and
- to set up a pipeline of around 6 to 10 projects for funding under this mechanism through a streamlined framework such as an internal coordinating mechanism where NABARD or other NIEs can work with financial institutions, private sector, and national and sub-national governments to prepare good project pipelines would be essential.
- to convert industry challenges into opportunities for developing GCF proposals. Some of these could include projects related to addressing high cost of funding; hedging cost for international finance, etc.

Domestic Funds

On climate finance, Participants reiterated that there also exist potential sources of grant funding under National Clean Environment Fund (NCEF), and Corporate Social Responsibility (CSR). However, (a) Modalities to access these funds are unclear (b) They face multiple demands such as other developmental activities, so that it is unclear how much would be available for climate finance.

Role of Innovative Collaborations for Industry

Co-operation and innovative partnerships formed one of the standing pillars of discussion at the roundtable. It was reiterated that co-operation would be essential between all primary stakeholders to enable access to finance for climate projects. The nature and degree of co-operation may vary depending upon the specific roles of each actor in the climate finance scenario.

Co-operation between Government and Industry

- Following India's current actions since the INDC as well as the 5 year progressive review cycle in the Paris agreement, domestically it would be crucial for government and industry to work closely together to ensure that what we have put on table as INDC are actually implemented. This is necessary, so after 5 years when the INDCs have to be enhanced, there is clarity on what exactly is the potential; what exactly are the opportunities; and how exactly government and industry can work in partnership to achieve these.
- Government at all levels should co-operate with the private sector as well as financial institutions to identify potential areas of intervention to address the specific challenges related to financing climate projects. Partial risk guarantees, bulk purchases to create markets for low carbon products should work well in Indian context.

Co-operation between the industry peer groups

- This is important to drive mutually beneficial outcomes in the market. For instance, the natural gas industry may find constructive way of doing business and create a cohesive network/business opportunity by collaborating with competing industries such as renewables.
- A key role can be played by organizations such as TERI-CBS, FICCI, and CII who can provide industry responsive platforms to bring together industries to collaborate with each other and generate business ideas through consultative discussions and add a positive value to collaborations.
- Industry group in collaboration with each other can develop project ideas where a workable idea in a particular sector, perhaps takes the entire sector (industry groups) into confidence to develop large scale transformative programmes for submission for funding to GCF.

Formulating Effective Market Models for Low Carbon Transition

On market based mechanisms, Indian industry representatives were quite hopeful that something on carbon markets should emerge in this agreement as it acts as a good tool to leverage private sector money in India and also gives clear direction to the industries to develop projects. Going the Clean Development Mechanism (CDM) way was not well received by the industry representatives following the experience of fall in global carbon markets where many of the Indian industries were left with stranded assets. However, there is a consensus

among the industry group that market mechanisms do play a significant driver for private sector.

Some key takeaways that emerged from the discussion are:

- With the new agreement, Industries are now keen on identifying the opportunities that lay for them within the voluntary trading opportunity under 'Paris agreements - Internationally Transferred Mitigation Outcomes' (ITMOs).
- One can draw from the domestic experience of PAT and REC that there are specific models of markets which may work well in the Indian context. Perhaps, developing a carbon market of one's own can be potentially a good proposal from India's side to seek GCF funding.

Policies that Make Climate Action in India Business Friendly

Technology Development & Transfer

- India's INDC in itself is a huge market signal to technology deveopers to start investing seriously in technology development.
- In the evolving climate change regime, it is believed the first movers in technology development will be the biggest winners of tomorrow. This is true not only with respect to technology in the narrow perspective of mitigation or renewable energy, but across the range of actions and areas, for example efficiency in water uses, efficient buildings, etc.
- To strengthen technology development and transfer in developing countries for the existing technology contracts, linkages between the existing global contracts such as the WTO TRIPS and UNFCCC must be called for by developing countries. This is necessary so that in future industries would be able to comfortably look at mechanisms which will give them access to technology at concessional rates or meet a part of the license fee through the Green Climate Fund. Such relationships must be established and India can take lead in its development to help its Industries fare well in the global market.

Role of Commercial banking in low carbon transition

While the government of India is preparing to identify potential sectors of implementation/measures to meet its INDC commitments, domestically, it is also essential to identify the sources from where the funding/investments in these sectors are going to come from. At present, the amount of funding from GCF and other national climate funds is quite lean and the Indian commercial banking sector has just started to develop their portfolio in climate projects[5] and have started committing investments in the sector. But, in the larger picture, it is important that India prepares its commercial banking sector, well in advance to adequately support finance for climate action. This is imperative from the point of view of the global investors making an active shift towards climate projects in their lending portfolio. Indian investors, financial sector and its private sector therefore, urgently need to read these signals and react in a way to be able to hold their competitive advantage in the global market.

Some highlights on commercial sectors lean behavior towards climate projects are:

RECENT BANKING SECTOR REFORMS THAT MAKE THEM CLIMATE FRIENDLY

Reserve Bank of India has set new guidelines that identify renewable energy and clean technology sector as priority lending sectors.

Regional banking system – BRICS Bank plans to earmark certain portion of their portfolio (about 15%) for renewable energy lending.

BRICS plan to set-up a mechanism to reduce the hedging cost of fund.

Voluntary Financial risk disclosure task force is established to align information between investors, lenders, insurers, and other stakeholders in ascertaining the financial risk element of industries investing in clean projects.

[5] During the roundtable interactions, investor groups highlighted that currently in the commercial banking space, hardly 0.25% portfolio of their lending comprise of concessional finance and even within that there is hardly few example in India, primarily with the view to not distort the market.

- Financial institutions generally resort to balance sheet funding which automatically puts climate projects in the back seat.
- the implementing industry must be able to demonstrate a continuous track record of that business idea/model performing to be able to fund through the commercial lending channel.
- FIs usually want to see equity funding or venture capital funding in a project before pure commercial funding could be justified. This is because in low carbon projects, pipeline of successful project ideas are not currently available in all sectors. This makes securing funds from the financial institutions difficult.
- High cost of funds as well as funding for technology development are a challenge in India

This indicates that while the banks are not shying away from financing climate projects, the climate change sector will have to reach a stage where banks would be able to extend finance on a complete recourse basis without looking only at balance sheet of the company.

Some of the suggested reforms for commercial sector that emerged from the discussions are:

- ☞ Banks to take on voluntary commitments in terms of the total percentage of investments that they are willing to divert financing into climate projects.
- ☞ Issue recommendations to industry on their investment guidelines for the committed amounts.
- ☞ Investors to co-operate with the government to set up partial risk guarantee schemes for green projects, as well as partial load sharing through multi-bank investment models.
- ☞ Banking capacity needs to be strengthened to be able to lead structuring/re-structuring of climate projects in a manner that they become bankable. Even in this case, several load sharing mechanisms such as credit enhancement facilities, partial risk guarantee, escrows, hedging cost reduction models could be explored.
- ☞ Capacity and awareness needs to be built at the local banking level about the financing needs and opportunities in climate projects.

These measures and reforms will together send a strong signal to businesses to drive climate action and leverage the billions of dollars pledged by developed countries into trillions of dollars flowing into low carbon projects.

SUMMARY

- Paris agreement generated widespread enthusiasm among industry, investors and other stakeholders worldwide and gave clear signals to industry to forecast trends in the Climate context.
- Given the recent investor and political movements at and around Paris, Indian industries are preparing themselves to realize opportunities that emerge in the global markets.
- Industry peer to peer co-operation as well as co-operation between important stakeholders like with government and financial sector will be crucial to move the private sector.
- Climate Funds such as GCF, NCEF will be vital to leverage market finance forces in favor of climate action by industry.
- Investment into both ready technology like RE and EE as well as new technology is important. Climate funds can be leveraged to address the risks associated with technology R&D.
- Specific models of markets based mechanism for climate finance such as PAT, RECs may work in the Indian context. Proposals to develop more market based mechanisms to leverage private sector finance could be proposed to the GCF.
- The government is preparing to convene the resources and expertise of all important stakeholders and create an enabling environment.
- Banking sector in India is reforming fast to meet the country's low carbon transition ambition and opening up opportunities for private sector to invest.

List of Participating Organizations

Capgemini India
Shakti Foundation
Statkraft
NTPC
GIZ
PRESPL
IOCL
Ministry of Finance
ONGC
BEE
NABARD
Jain Irrigation Systems Ltd
CLP India Private Limited
Niti Ayog
Infosys
Mahindra Susten
Indian Railways
GAIL (India) Limited
Dalmia Cement
Ministry of New and Renewable Energy
GGGI
Welspun Energy Limited
Dalmia Cement (Bharat) Limited
NTPC Ltd
YES Bank
Lloyd Insulations India Limited
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Partners

WRI India is a research organization that turns big ideas into action at the nexus of environment, economic opportunity and human well-being. WRI India is linked with World Resources Institute (WRI), a global research organization that spans more than 50 countries, with offices in Brazil, China, Europe, India, Indonesia, and the United States.

www.wri-india.org

TERI (The Energy and Resource Institute) is a non-profit, scientific and policy research organization, working in India and globally in the field of climate change, energy, environment, water, biotechnology, forestry, as well as a range of sustainable development issues. The organization was founded in 1974 with the mission of addressing climate and energy issues of concern to the Indian society as well as the world at large. Over the years the Institute has created a dynamic and inspiring environment for developing innovative and cost-effective solutions. TERI has been engaged in forging long-term linkages and partnerships with agencies and organizations, including the government, so that the effort towards a green tomorrow never ceases.

www.teriin.org/index.php

CII is a non-government, not-for-profi t, industry led and managed organization playing a proactive role in India's development process. Founded over 118 years ago, India's premier business association has over 7,100 members including SMEs and MNCs. Extending its agenda beyond business, CII assists industry to identify and execute corporate citizenship programs — along with partnerships with civil society organizations to carry forward integrated and inclusive development..

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INDIA GHG PROGRAM
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About India GHG Program

The World Resources Institute (WRI) India, the Confederation of Indian Industries (CII), and The Energy and Resources Institute (TERI) have launched a Centre for Excellence on GHG accounting in India. This is the India GHG Program, a voluntary initiative to assist Indian corporates in measurement and management of GHG emissions. The Program promotes a more competitive, profi table, and sustainable business environment; broadens engagement between to policymakers and the business sector in supporting the overall advancement of national goals; and will create a pool of adequately trained and certifi ed GHG practitioners, plus measurement and management professionals.

The Program aims to help companies in India monitor their progress towards voluntary reduction goals in a consistent and credible manner. It will provide the companies with tools and technical assistance to build inventories, identify reduction opportunities, establish both annual and long-term reduction goals, and track their progress based on the GHG Protocol.

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