Financing for Low Carbon Development in India

Shailly Kedia, Nishant Jain
The Energy and Resources Institute

Context

- Financing low-carbon development is a critical challenge of this century. Globally, this challenge has been greatly augmented in the wake of serious global macro-economic imbalances. As macro-economic and banking regulations, including the Basel rules, move towards safety, investments in sustainability could face impediment.

- Low carbon development projects are attributed with high initial capital costs which are usually offset by lower operations and maintenance (O&M) costs; however, in various economies, fiscal incentives are available for O&M costs but not for the initial capital costs.

- Investment decision-making is made based on methods including cost-benefit analysis and net payback period. A fundamental challenge here then is how to factor for environment and social implications in financial decision-making.

- The Addis Ababa Action Agenda of the Third International Conference on Financing for Development recognizes that "funding from all sources, including through public and private, bilateral and multilateral, as well as alternative sources of finance, will need to be stepped up for investments in many areas including for low-carbon and climate resilient development". The role of financing for promoting low carbon development strategies in different sectors in an economy becomes crucial.

- The report of the Expert Group on Low Carbon Strategies for Inclusive Growth by the erstwhile Planning Commission of India in 2014 noted that the shift to low carbon inclusive growth will require an additional investment equivalent to 1.5% of GDP over twenty years from 2011 to 2030, over and above the Baseline Inclusive Growth scenario. This is equivalent to USD 834 billion (in constant 2011 dollars). It is important to look at various financial mechanisms and the underlying policy environment for low carbon development in India.

Stakeholder Perspectives

Finance is a very multi-faceted topic in low carbon development encompassing public finance, banking, and market instruments. Moreover the process of decision-making in finance is important to understand. To understand these key aspects for low carbon development, structured questionnaire-based consultations were carried out for various stakeholder groups including government, industry, and research & academia with an objective of understanding sector-wise needs for low carbon development. It involved interviewing 298 stakeholders.

Key insights from the consultation are summarized below:

- High cost of financing is the major bottleneck for financing sustainability projects. Also, inadequate subsidies, inadequate mechanisms for supporting low carbon development by financial institutions along with lack of awareness of low carbon projects impede the financial space for low carbon development.

- In terms of financial decision-making in projects, cost benefit analysis is the quantitative method widely used while risk perception is the qualitative method used.

- The importance of provision of subsidies for promotion of low carbon development also needs to be considered.

- Financial innovation in public finance through government stimulus and special funds comes out as an important need. Tax reforms are essential to increase funding for local bodies. For sectors like renewable energy, market mechanisms are important.
- Public finance is a choice that all the stakeholders believe should a form a part of prominent sources of funding for financing sustainability projects. Government stimulus and equity are the other prominent sources.
- Market mechanisms are important for low carbon development projects.

Financing Mechanisms in India

There are various financial mechanisms for low carbon development in India including public finance, traditional finance, risk management instruments, market-based tradable instruments, and international sources (see table). While there is no domestic carbon market developed in India, instruments such as renewable energy certificates are traded at the Power Exchange India Limited. In terms of mechanisms developed by the central banking regulatory authority, there is a scope for the issuance of green credit guidelines.

	Type	Mechanisms in India
Public finance and fiscal Instruments	Tax revenue	Coal cess
	Budgetary allocations and fiscal transfers	Annual budgetary allocations, centre-state fiscal transfers
	Subsidies	Example include subsidies on solar heaters, electric vehicles, energy efficient appliances
	Fiscal instruments	Tax rebates
Financing mechanisms	Special Funds / Institutions	National Clean Energy Fund, state energy conservation fund, IREDA, sub-national funds
	Markets innovations	Indices such as Greenex and Carbonex
	Traditional market instruments	Green bonds for renewable energy, energy efficiency and green infrastructure projects
	Climate/ energy market instruments	Clean Development Mechanism, Renewable Energy Certificates, Energy Saving Certificates
	Banking provisions	Special provisions for MSME, priority sector lending norms by the Reserve Bank of India
Risk management	Risk management mechanisms	The Partial Risk Guarantee Fund under the National Mission on Enhanced Energy Efficiency, Credit Guarantee Fund Trust for Micro and Small Enterprises
International sources	Grants	Bilateral and multilateral sources
	International climate finance	Green Climate Fund, Adaptation Fund

Recommendations

The government and financial institutions need to play a greater role to respond and anticipate the complexities and needs emerging in the low carbon space. The role of the Ministry of Finance as the apex financial institution in India, the Reserve Bank of India as the banking regulatory authority, sub-national governments at the state and municipal level, banking and investment institutions, and the private sector – all have a crucial role to play in financing low carbon development. Key recommendations include:

- The sustainable development community as a whole needs to recognize the importance of engaging with global financial regulatory frameworks such as the Bank for International Settlements, International Monetary Fund and International Accounting Standards Board.
- The Ministry of Finance can promote mainstreaming of environmental sustainability in the budget decision-making process through mechanisms such as 'green budgeting'.
- Fiscal incentives can be further promoted. These instruments can be designed by governments at the sub-national level including state government and municipalities.
- Public finance will be crucial in helping stimulate investments for low carbon development. Apart from initiatives such as the National Clean Energy Fund, there is need for more innovation in public financing on low carbon development initiatives.
- The Reserve Bank of India can take steps in the direction of bringing financial innovation like designing 'green' credit guidelines. It should also promote voluntary sustainability reporting by banks.
- The Reserve Bank of India can play a role for spreading awareness regarding priority sector lending norms relevant to low carbon development among various stakeholders concerned. Also, sectors other than renewable energy which can also contribute potentially towards environmental sustainability, such as buildings, transport, agriculture, industry, waste and forestry should be given due consideration under the banking norms.
- Awareness about Carbonex and Greenex should be enhanced. These indices can also be extended to more companies.
- Market mechanisms in India will need to be strengthened for instruments such as the Renewable Energy Certificates (RECs) and Energy Saving Certificates (ESCerts). Trading of instruments under the Power Exchange India Limited can be further explored.
- In terms of international carbon market related instruments, there is a need for institutional support to clean development mechanism project developers across various states in India. There is also a need to relook at the current institutional processes which are bureaucratic and complex in design.
- While international climate finance has sought to leverage and attract private finance, according to Climate Funds Update, as of the beginning of 2012, globally, for every USD 1 spent between 2010 and 2012, only USD 0.25 of private finance had been drawn. Green Climate Fund should be able to boost this gap.
- For improving the enabling environment for public private partnerships (PPP), there is a need for more transparency in the entire PPP project cycle including bidding processes and standardization of procurement procedures. There is need to build capacity for evaluation and oversight. It is also important to design clear policy and regulatory guidelines specifically targeted at addressing issues in low carbon development projects as these are perceived to have higher risks.
- Banks, micro-finance institutions, non-banking financial companies require risk offsets to invest in low carbon development projects. Hence risk management instruments are important.

Acknowledgement

This policy brief is drawn from the full report, *"Financing for Low Carbon Development in India,"* prepared under a study on Low Carbon Development in India which is implemented by The Energy and Resources Institute and is supported by Shakti Sustainable Energy Foundation.