



Climate Change & Carbon Finance

An FI perspective

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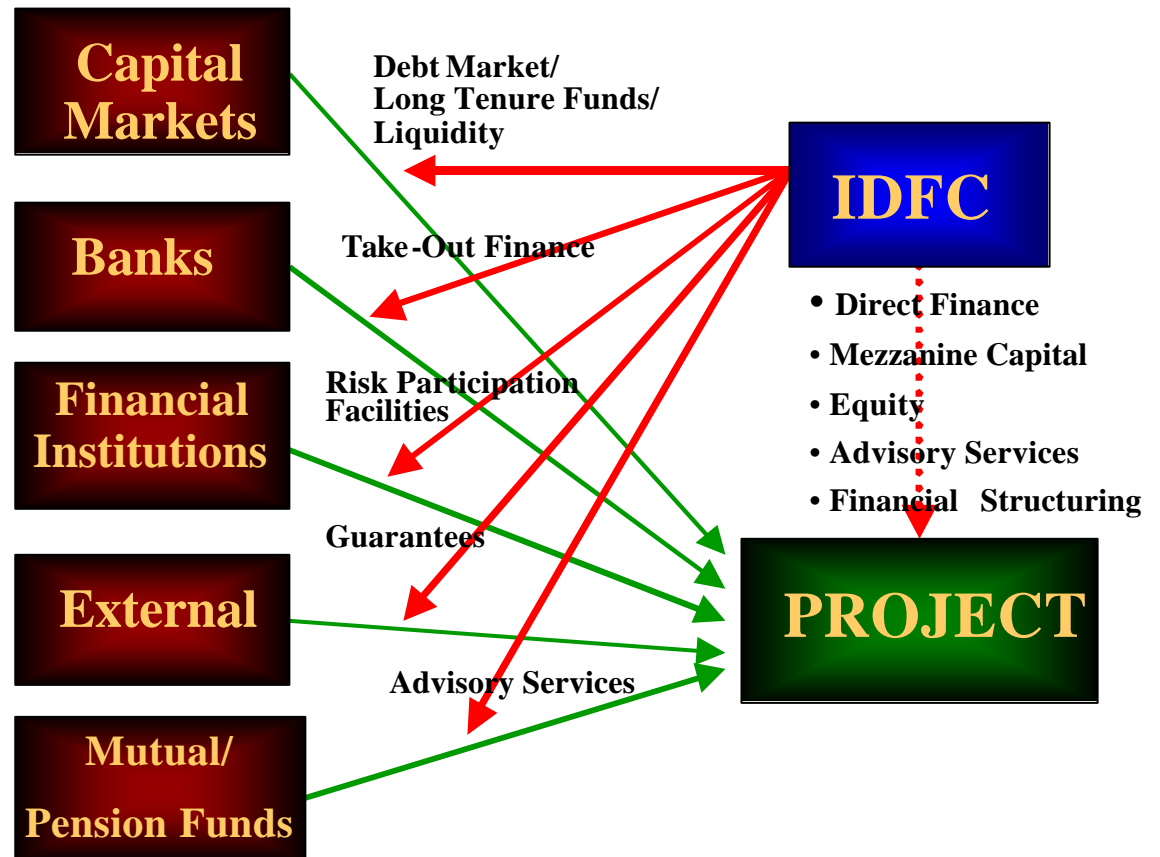
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IDFC About IDFC

IDFC's Mission

- To lead private capital to commercially viable infrastructure projects in India
- To provide a strong policy advisory role to Government to meet this objective
- To develop and strengthen the connectivity of infrastructure projects to markets and institutions

Institutional Positioning

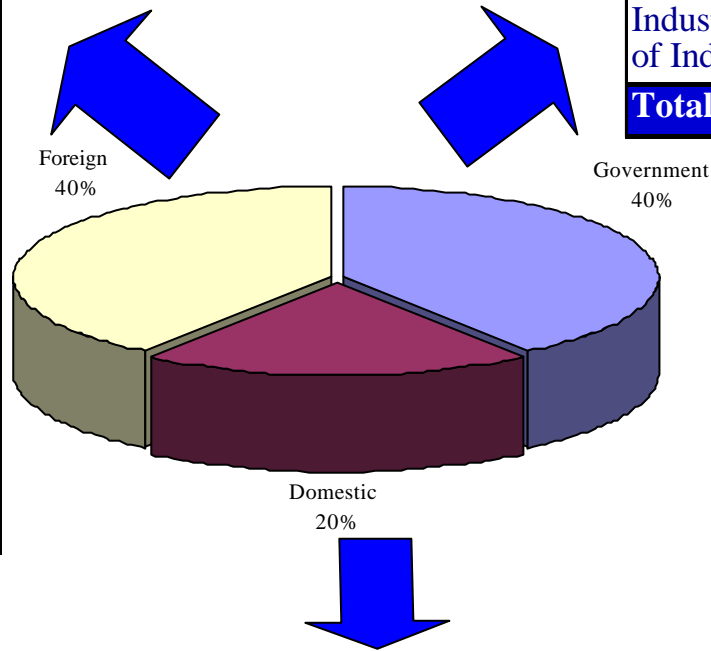




About IDFC

	Rs. Crores	Percent
Asian Development Bank	61	6.1
Commonwealth Development Corporation	61	6.1
Government of Singapore Investment Corporation	61	6.1
International Finance Corporation	61	6.1
American International Group Inc.	40	4.0
Deutsche Morgan Grenfell	40	4.0
The Swiss Federal Office for Foreign and Economic Affairs	38	3.8
Banca Nazionale del Lavoro S.p.A.	19	1.9
Standard Life Assurance Company	19	1.9
Total	400	40.0

Shareholding Pattern



	Rs. Crores	Percent
Government of India	200	20
Reserve Bank of India	150	15
Industrial Development of India	50	5
Total	400	40

	Rs. Crores	Percent
ICICI	60	6
State Bank of India	60	6
HDFC	30	3
UTI	30	3
IFCI	20	2
Total	200	20



IDFCs activities

- To enable commercially viable infrastructure development through
 - policy advice
 - project advisory
 - project financing
- Sectors
 - Energy
 - Transport
 - Water & Sanitation (Urban)
 - Telecom & IT
 - Food & Agri
- Special interest across the sectors on
 - Environment Management
 - For conventional projects
 - Environment Infrastructure
 - Decentralized Infrastructure & New Technologies



IDFC's interest in CDM

- **A Strong focus on Environment benefits & New Technologies**
- **Exploring the upsides of projects with Carbon mitigation that are already part of IDFC's areas of interest/portfolio**
 - **Waste to Energy Projects**
 - Methane offset
 - Conventional power generation offset
 - **Demand Side Management & Energy efficiency**
 - **Renewable Energy projects**
 - **Urban transport**
 - Fuel switching
 - Demand side management
- **Related activities with possible Carbon mitigation benefits**
 - **Rural Electrification**
 - **Working with Government for sector strategies**
 - Power strategy/Urban transport
 - **New technology exploration**
 - Bio-fuels, biomass power, off-grid options
- **Carbon finance could play an important role in enabling infrastructure projects to happen**



Potential areas for CDM

Energy	<ul style="list-style-type: none">• Demand Side management (DSM)• Co-generation• Biomass based projects• Renewables	OFFSET
Transportation	<ul style="list-style-type: none">• Fuel change• Public transportation	
Urban Infrastructure	<ul style="list-style-type: none">• Waste to energy• Waste to compost• Water pumping efficiency	
SEQUESTRATION		
Forestry	<ul style="list-style-type: none">• Mining Sector development• Land for infrastructure projects	



Realizing Carbon Benefit for Projects

- **For enhancing the project related returns for commercially viable projects**
 - easier to reach financial closure
- **For moving projects with marginal investment grade to investment grade**
- **Can jump start sectors**
 - Power sector
 - Renewable energy
 - Urban Infrastructure
- **Project must reach financial closure over and above the carbon money**
- **Un-viable projects are unlikely to be impacted**



Financial selection criteria

Project viability	Significance of carbon finance
-ve IRR	Carbon funds critical high cost : difficult to sell
Marginal IRR	Carbon funds critical; Cost/ton moderate; Investment attractive
Marginal IRR with un-addressed risk/barriers	Viability improves greatly; Low cost/ton Investment attractive
+ve	Viable without carbon financing Can be used to enhance



CDM : Institutional issues

- **Evolving the role of the Operational Entities**
 - Fast track for small projects
 - Regular projects
- **Attributes of OE**
 - Independence <> Synergies with existing operations
 - Management/Competence
 - Overall acceptability
 - Government of India
 - International bodies
- **Efficient procedures for operation and project clearance in India**
 - OE
 - OE subcontractors
 - Designation National Agencies



CDM : Financing issues

- **Allocation of transaction risks**
 - Transaction costs
 - Risks of project non-performance
 - Simple payment plan
 - Forex risk
 - Repayment risk
 - Performance model
- **Clear understanding of financial additionality expectations/requirements**
 - CDM for upside improvement (not enough return)
 - CDM for risk mitigation (high risk projects)
- **Other structures**
 - Aggregation models
 - Risk mitigation (guarantees etc)



Desirables

- **The process should be multi-purpose, to be able to operate under any regime**
 - CDM
 - Bilateral agreements
 - Pilot/Voluntary markets
- **Country driven priorities**
 - Focus areas of growth
 - Focus sectors
- **The Country process should**
 - Be transparent and clear
 - Efficient and facilitate low transaction costs to enable Indian projects to be competitive in a global market



Possible roles for an FI

- **Core CDM activities**
 - Validation & Registration : akin to project appraisal
 - Coordination of technical studies for Project feasibility / Carbon baselines (part of project appraisal)
 - Overseeing project monitoring and feedback (akin to project monitoring)
- **Finance related activities**
 - Project structuring and financial engineering with Carbon benefit integrated
 - Banking and aggregation to enable larger deals
 - Development of template Legal and financial contracts and frameworks (short term)
 - Developing the guidelines for financial additionality
- **Promote/facilitate local capacity building**



Way forward

- **Negotiation issues**
 - **Standards for accreditation of OEs**
 - Insurance : Professional liability etc may be a problem
 - Resources for activity : extent of risk to be borne by OE
- **Interim Action**
 - **Process & Entities**
 - Process for small "fast track" projects/portfolio
 - Template structures, contracts and agreements
 - Approach to baseline
 - Verification/Certification OEs (look at ISO type entities with strong Indian operations)
 - OEs for Baseline/Validation, Indian organizations/Fis
 - enable transaction costs to be kept low
 - **Proactive engagement in existing deals**
 - to establish experience & local capacity/credibility
 - PCF/Cerupt/other Multilateral/Bilateral mechanisms



Summary

- **CDM can be leveraged to move some priority infrastructure sectors**
 - Water, sanitation & solid waste
 - Energy
 - Transport
- **To move ahead, frameworks need to be in place for**
 - **Sector development**
 - infrastructure
 - industry
 - other
 - **Capacity building**
 - OE
 - Training
 - technical assessment
 - **Financial structuring and integrating into project finance**
 - **Legal and fiscal frameworks**



Thank You