Promoting Investments in Climate Change Mitigation

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Climate Change undercuts development

25+% crop productivity drop in many countries by 2080[1]

30% hunger risk increase by 2080[2]

200 million

permanently displaced 'climate refugees' by 2050[3]

5 million

illnesses due to climate change in 2012[4]

44 million

people driven into poverty from rising food prices in 2010[5]

4% GDP losses in Thailand from flooding in 2011[6]

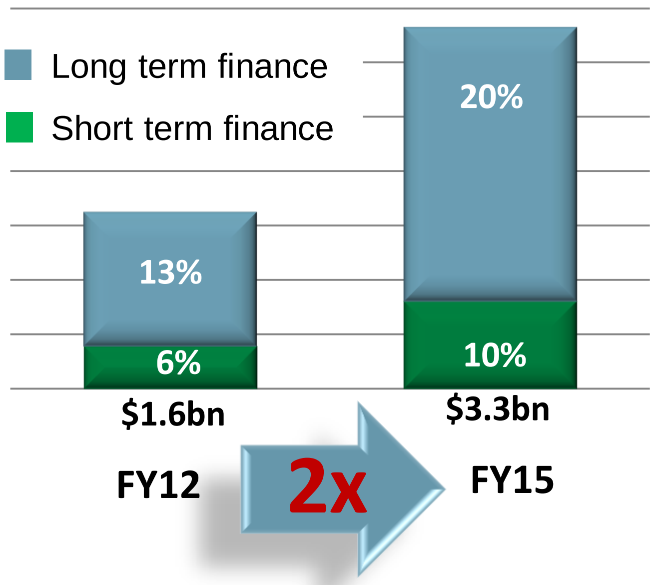
Sources:
1. William Cline "Global Warming and Agriculture"
2. World Development Report 2010
3. Columbia University CIESIN: "Environmentally Induced Population Displacements"
4. Journal Nature: "Impact of regional climate change on human health"
5. McKinsey: "Resource Revolution"
6. Bloomberg: "Thailand Says GDP May Shrink 3.7% on Floods"

IFC's Climate Goals and Commitments

1

IFC's annual climate-smart investment targets:

20% of long-term finance &
10% of trade finance by FY15



2

IDG 6 – IFC Developmental Goal: GHG reduction in metric tons of carbon dioxide equivalent (tCO2e)

3

IFC tracks the gross GHG emissions of all real sector investments

Sustainability and Climate Change

Sustainability covers more than climate change

- – Biodiversity, pollution prevention etc

Climate Change

- – Energy (CO_2)

Energy efficiency (reducing consumption of energy)

- Industrial
- Housing and construction
- Municipal

Renewable energy (increasing non GHG production of energy)

- Small
- Off-grid/grid connected
- – Methane (CH_4) avoidance (Agri, food processing, municipal waste and waste water)
- – Industrial gases (HF6, HFC's, N20 etc)
- – Avoided Deforestation/Afforestation (capturing CO_2)
- – Carbon Finance : an additional revenue stream for the above (a potential source for risk capital and incentives)

IFC Approach

Fully Commercial

Requires subsidy

Area of Focus

Sustainable Energy Finance
Fully commercial activities
(Commercial banks)

Commercial banks and DFIs

Area of Focus

Not fully commercial: Blended Finance
<u>Gap</u>: In need of <u>temporary</u> subsidy

Not fully commercial Gap: In need of LT subsidy

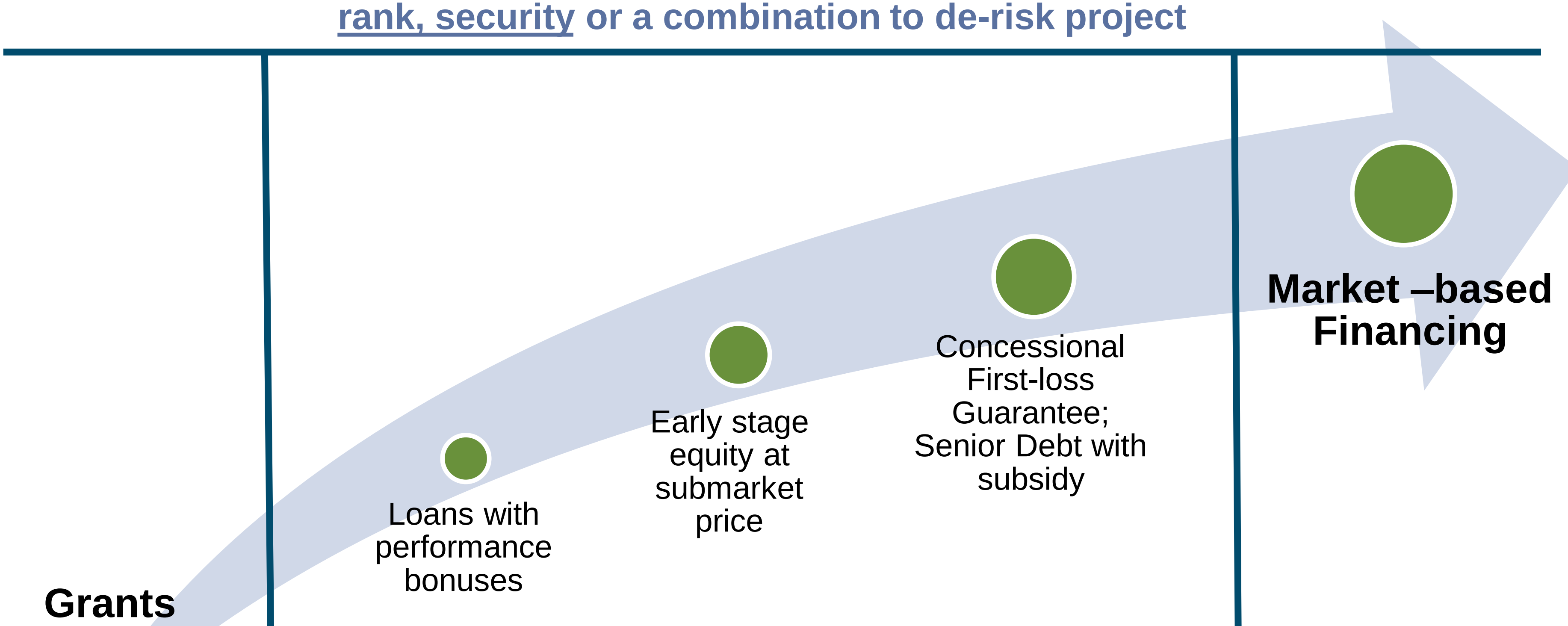
Permanent Subsidy (Government/NGOs)

- Lack of commercial viability because of perceived/real risks, or costs <u>but</u>
- Where risk/reward balance for private sector can be achieved over time
- Blended Finance to private sector can "fill the gap" in the market and catalyze investments

Approach being piloted for Agribusiness, Climate Change and SMEs

What is "Concessional Finance”?

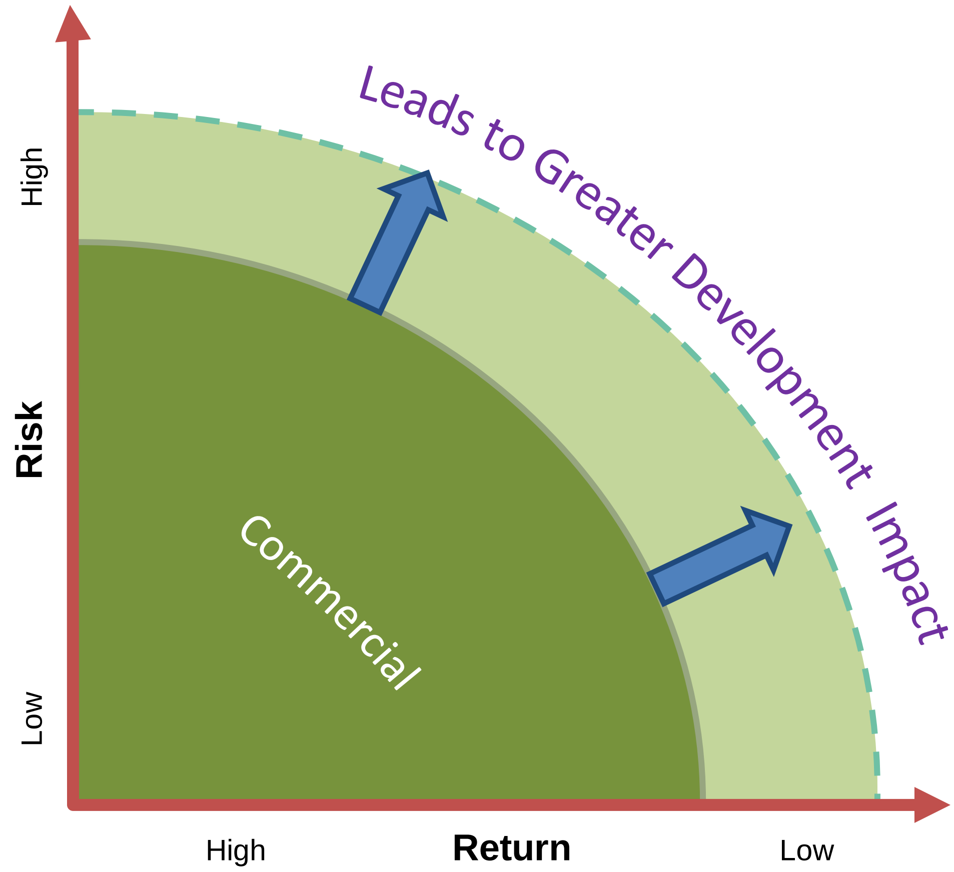
Financing at softer terms through <u>price, tenor, rank, security</u> or a combination to de-risk project



Blended Finance = Concessional Finance + IFC Investment

Purpose of Concessional Funds:

to catalyze investments that would otherwise not happen and which are <u>just beyond</u> commercial viability



More than $300M Concessional Funds Available for Climate Change Projects

Canada Climate Change Program (CCCP)	Climate Investment Funds (CIF)	Global Environment Facility (GEF)

• US$280M in-house
• Eligible Projects: RE, EE, forestry, adaptation
• Country Eligibility: IFC countries except China; in ECA only Moldova, Serbia, Georgia, Bosnia, Montenegro, Albania and Macedonia are eligible.
• No equity or CDM
• Max 30% subordinated
• Local currency where possible
	• Comprised of 4 funds
	  • Mitigation (CTF)
	  • Forestry (FIP)
	  • Adaptation (PPCR)
	  • Small RE (SREP)
	• Funds in house
	  • ~$230 (CTF)
	  •~$10 (SREP
	  • ~$9 (PPCR)
	• Available for countries with approved Investment Plans
		• GEF/IFC Earth Fund ($40M)
		• Environmental Business Finance Program
		  • Projects for SMEs through FIs ($24M)
		• Eligible Projects: RE, EE, biodiversity conservation

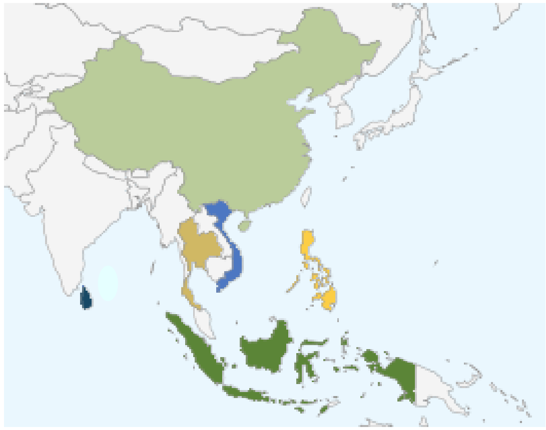
$140 M	$143 M	$31 M

Currently Available: ~$304

Delegated Authority from Donors

Concessional Finance in ASIA- Climate Change Projects 1

Project		Project Size[2]	Donor Funds	Concessional Finance Support	Source of Funds
Investment Transactions					
Techcombank (Vietnam)	CGF	25	1	Credit line w/ performance bonus	Earth Fund
CHUEE SME (China)	CGF	558	10	Guarantee/ First loss coverage	EBFP
Solar Power (Thailand)	CIN	41	5	Credit line w/ concessional pricing	CTF
BMUL (Thailand)	CGF	70	5	Guarantee/ First loss coverage	CTF
La Suerte (Philippines)	CIN	13	3[3]	Credit line w/ concessional pricing	CTF
BPI SEF II (Philippines)	CGF	70	3	Guarantee/ First loss coverage	Earth Fund
Dewan Housing (India)	CGF	85	15[3]	Credit line w/ concessional pricing	Canada
Total Investment		***862***	***42***		
Advisory Services					
Indonesia EE	A2F	2	0.41	Advisory	EBFP
Vietnam CPEE	A2F	2	0.90	Advisory	CTF
Philippines SEF	A2F	2	0.80	Advisory	CTF
CHUEE 3 SME AS	A2F	5	2.19	Advisory	EBFP
Biomass IPP	C3P	2	0.45	Advisory	Canada
Thailand Clean Energy	SBA	2	1.18	Advisory	Canada/CTF
Total Advisory		***15***	***6***		



[1] Figures in $USD millions;

[2] Committed amounts by IFC, the donor and the FIs at programs' inception

[3] Approved, but not yet committed

Market barriers for Scaling up Sustainable Energy Finance (SEF)

- High upfront costs
- High perceived risks
- Lack of proven business model
- Lack of capacity and information both at the FI level and also at the industry level
- High technology cost
- Lack of entrepreneurs
- Lack of service providers

What does IFC bring to the table?

SBA

Market transformation through technology demonstration, standards, and support to firms

A2F (SEF)

Wholesale model of climate financing through FIs

Investment

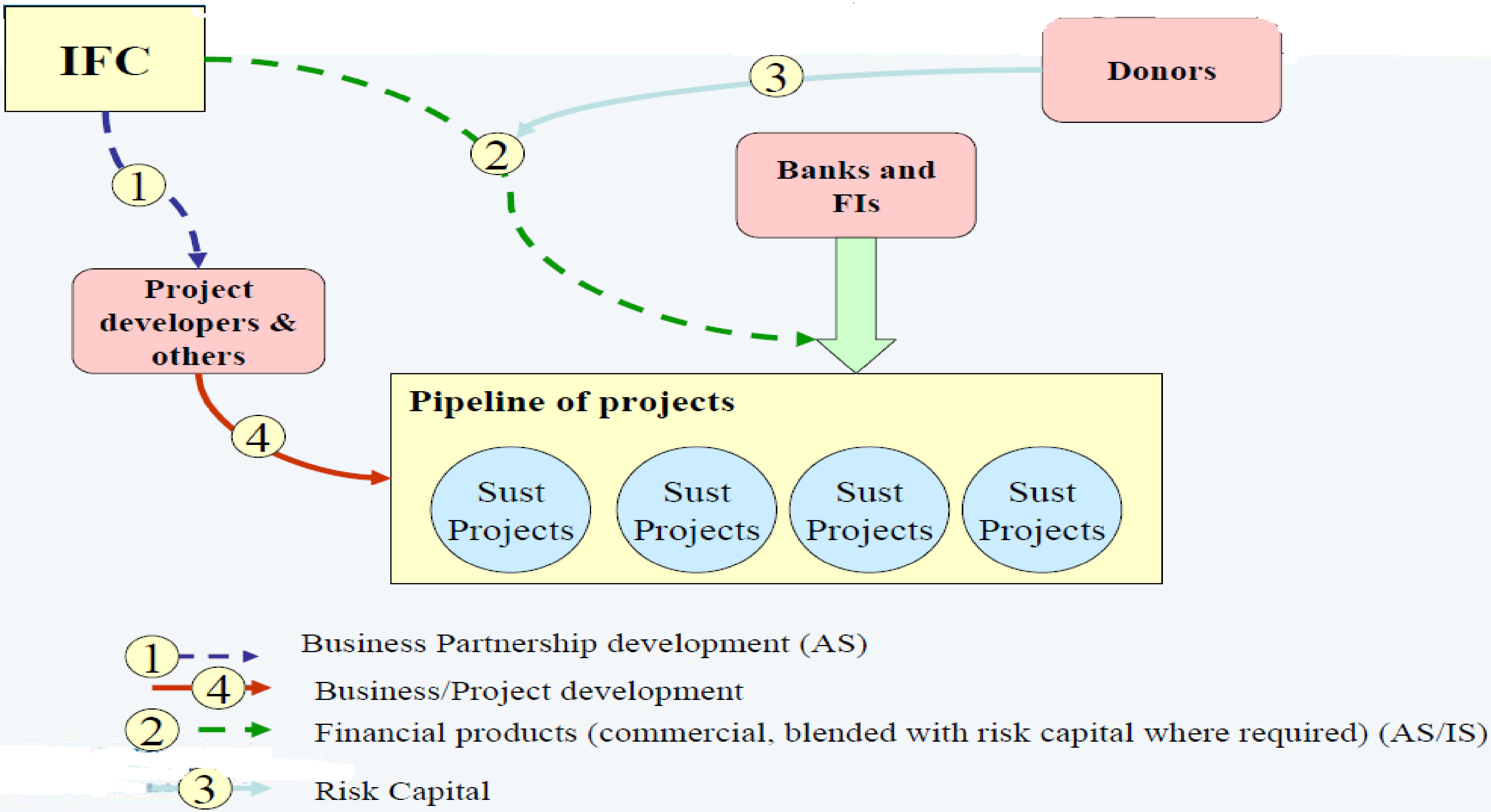
C3P

Large transactions for bidding with public-private funding

IC

Regulation and Policy improvement

IFC Approach: Scaling up Sustainable Energy Finance (SEF)



IFC Value Proposition

Enabling Partnerships to develop pipeline of new business:

- *Financial Institutions*
- *Energy Service Companies (ESCOs)*
- *Technology Manufacturers and Suppliers*
- *Carbon off-takers*

Advisory services (donor-funded) to build client FIs capacity to identify and analyze these types of projects:

- *Market analysis and product development*
- *Credit risk managers training*

Funding using financial products tailored to the needs of diverse markets:

- *Credit lines and senior loans*
- *Risk sharing products and guarantees*
- *Mezzanine financing and subordinated debt*
- *Risk capital*

Promoting Clean Energy

IFC improves access to energy by:

- Advising firms on the commercial and technical aspects of renewable technologies and business models.
- Helping build capacity at the sector level and promoting best practices and standards.
- Facilitating access to finance along the clean energy value chain.
- Working with government on initiating regulatory and policy reforms.


Generating Electricity from Hydro Power Project


Windmill for Clean Energy


Woman Operating Energy-Efficient Cookstove

Promoting Clean Energy Projects

Project Description	GHG Emission Reduction (in CO_2 tons)	Financing Mobilized (in $ million)	Number of People Covered
OFF GRID, India With support from IFC and other partners, 'Hariyali', the green finance program of Self Employed Women's Association (SEWA) is enabling rural women with the purchase of energy-efficient cook stoves and solar lanterns microfinance program.	250,000	1.59	500,000
OFF GRID, India The project provides technical assistance to regional rural banks to develop their clean lending portfolio. IFC is partnering with Micro Energy Credits (MEC), a carbon offset aggregator, to extensively engage with the banks on lending for solar home lighting systems and energy-efficient cook stoves.	--	1	420,000
ON GRID, Sri Lanka The project seeks to develop a market for power generation from renewable energy sources as an alternative to fossil fuels working along with local financial institutions in Srilanka.	63,000	66	--
ON GRID – PUBLIC PRIVATE PARTNERSHIP, India IFC supported the state of Gujarat in structuring and implementing on public-private partnership basis an innovative small-scale 5 MW grid connected solar rooftop power in the capital of Gandhinagar.	6,000	10	12,500
This is now being replicated in five other cities of Gujarat - Rajkot, Mehsana, Vadodra, Bhavnagar and Surat.	30,000	50	45,000
OFF GRID, India* The Lighting Asia program addresses the systemic market barriers that are impeding the development of markets for off-grid appliances and mini-grids.	64,000	-	2,000,000

**These are ongoing projects*

Resource Efficiency Projects

The following projects illustrate some of IFC's successful advisory interventions in utilizing natural resources productively :

Project Description	GHG Emission Reductions (in CO_2 tons/ year)	Water Savings (million cubic meter per year)
Cleaner Production Program for South Asia, India The project directly supports cleaner production assessments with existing and potential IFC investee clients. Cleaner production is a key instrument for carbon dioxide emission reductions and an effective way to mitigate risks known to cause or accelerate climate change.	60,000	1.3
Corporate Water Program, India* IFC is developing a water sustainability framework for four Tata Group companies - Tata Steel, Tata Power, Tata Motors, and Tata Chemicals- to facilitate investment in water efficiency at 11 plants of Tata Group across India. The Group is expected to develop and implement a water policy and strategy, starting with the replication of water footprint assessments across all group companies. The Group is likely to partner with IFC and other stakeholders for catalyzing water security solutions for 50,000 farmers in Uttar Pradesh.	--	6.7
Low Carbon Special Economic Zones, Bangladesh This project will lower the carbon emissions from activities within the Chittagong Export Processing Zone and provide a roadmap for other export processing zones inside and outside Bangladesh to follow the low-carbon growth path.	62,000	--

Resource Efficiency Projects

Project Description	GHG Emission Reductions (in CO_2 tons/ year)	Water Savings (million cubic meter per year)
Green Building Codes, Bangladesh IFC and the Housing and Building Research Institute are assisting the Government of Bangladesh in developing a Green Building Code to be piloted in Dhaka.	450,000	--
Partnership for Cleaner Textile, Bangladesh The program will engage with ten apparel brands on harmonizing procurement guidelines related to water efficiency in the supply chain, 200 textile factories on the identification of resource efficiency measures, and 150 factories on best textile processing and effluent treatment technology investments.	150,000	25
Municipal Street Lighting in Bhubaneshwar, India* IFC is supporting the Indian state of Odisha in upgrading the street lighting network in the capital of Bhubaneswar through a public private partnership approach.	7,000	-

**These are ongoing projects*

Private Equity Funds related to Climate Change

Fund Name	Region	Total Committed Capital ($)	Vintage	Commitment ($)	Description
Aloe 2	India	28 million	2008	19.4 million	Aloe 2 is a closed-end private equity fund which will make investments in companies in the clean energy sectors in Asia.
Infuse Capital	India	N/A*	2013	5 million	Indian Fund for Sustainable Energy (Infuse) is a fund established to invest in early stage companies engaged in wide array of products and services in the clean technology sector in India. It is housed within the Centre for Innovation Incubation and Entrepreneurship (CIIE), the business incubator at the Indian Institute of Management, Ahmedabad (IIMA).
Nereus Capital	India	N/A*	2013/14	20 million	Nereus is a closed-end private equity fund formed to invest in companies engaged in the development, construction, or operation of renewable energy generation assets in India or the deployment of clean energy technologies in India.
GEF SACEF	South Asia	127 million	2010	18.5 million	SACEF is a 10-year closed-end private equity fund dedicated to the clean energy sectors in the South Asia region. The Fund will make investments in energy efficiency, renewable energy generation, and environmental products and services.
Aloe III	East Asia and Pacific	N/A*	2013/14	25 million	Aloe III is a closed-end private equity fund, which will make investments in companies whose business activities sustain, restore and improve the environment. Sectors of focus include, but not limited to, clean energy, waste recycling, and eco process.

*Fundraising

PE Funds: Early observations

IFC's Results Have Benefited From:

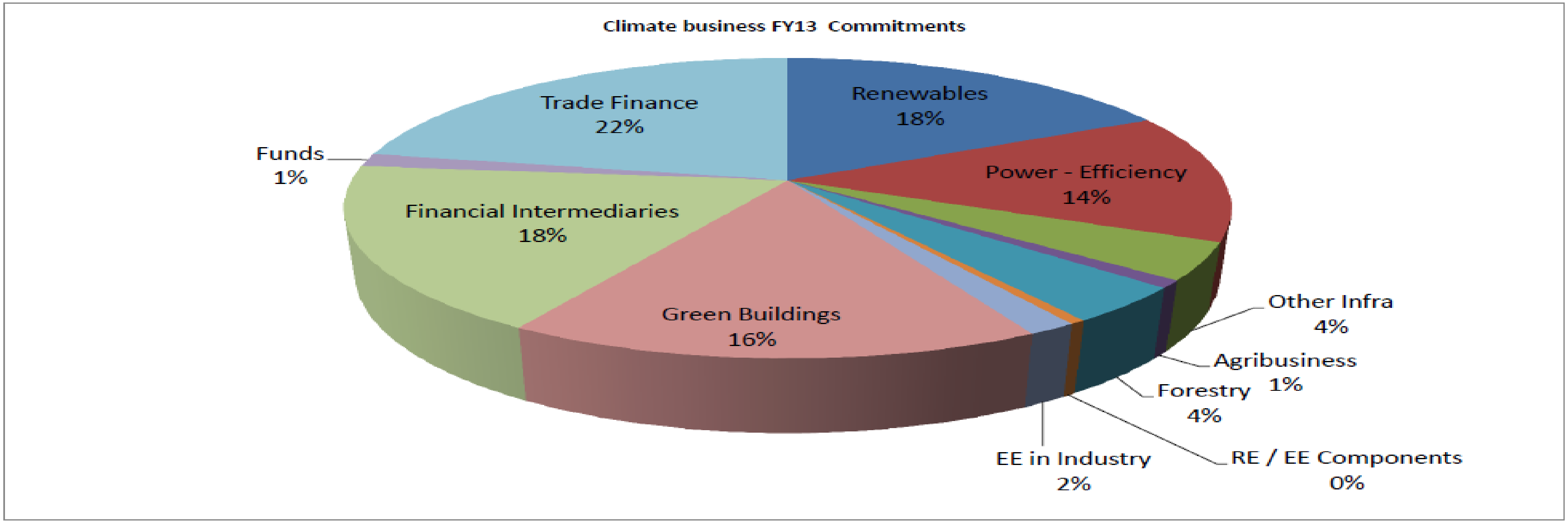
- Diversification - Taking Advantage of the Entire Global EM Opportunity
- Concentration in Mid-Sized and Smaller funds
- Good Manager Selection
- Capturing the Early Mover Premium

Early Lessons Learnt

- Lack of funds
  - Difficulties for fund managers to raise capital
  - Technology driven
  - Resource for R&D largely missing
  - Global financial crisis
- Sub sector diversification is required
- Appetite for risk will have to be greater than usual
- The early entrant premium will be present but diminishing
- Markets are still evolving brining opportunities and risks
  - Track records in isolation will remain a weaker indicator than in developed markets
  - Staying close to the market will be key
  - Constraint will be scaling up, not risk

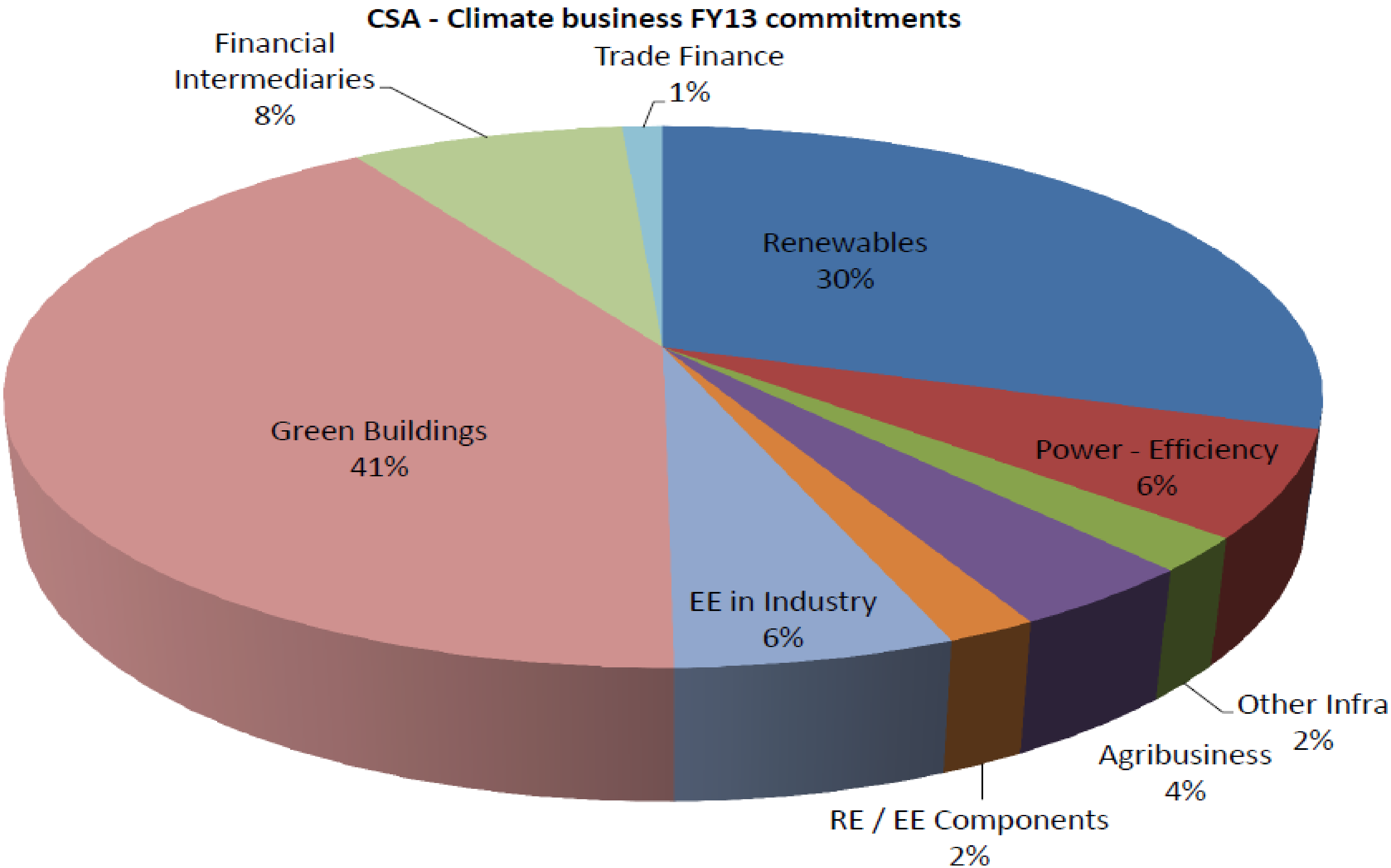
IFC Global Commitments

Composition of Climate-Related Commitments - Global



Renewables	$441.18
Power - Efficiency	$348.46
Other Infra	$100.71
Agribusiness	$20.49
Forestry	$99.25
RE / EE Components	$11.99
EE in Industry	$37.72
Green Buildings	$412.20
Financial Intermediaries	$449.56
Funds	$35.00
Trade Finance	$552.03

IFC South Asia Climate Commitments



Thank you!