Existing Funding Sources for Mitigation and Adaptation in Developing Countries

Zhu, Xianli

Publication date:
2013

Document Version
Publisher's PDF, also known as Version of record

2nd Capacity Building Workshop for 2nd Round Countries in Asia and CIS under the GEF-funded TNA Project

Existing Funding Sources for Mitigation and Adaptation in Developing Countries

Xianli Zhu

UNEP Risoe Centre

21-24 Feb 2012, Bangkok

Existing International Funding Sources for Mitigation in Developing Countries

Based on the draft *Guidebook for Mitigation Funding Sources and Their application* prepared under the TNA project

Financing for Mitigation activities, 2009 - 2010

FINANCING SOURCE	AMOUNT (Million USD)	% OF TOTAL
Multilateral Financial Institutions	13,886	15.0%
Bilateral Financial Institutions	19,127	20.7%
Dedicated Climate Funds	2,428	2.6%
Carbon Offsets	2,250	2.4%
Philanthropy	240	0.3%
Private Financing Sources	54,600	59.0%
Total	92,531	100.0%

Source: Climate Initiatives, The Landscape of Climate Finance, 2011

Types of Financing Provided by Different Financing Sources

Type of Financing	Typically Provided By
Grants	Multilateral financial insitutions (MFIs), Bilaterial Financial Institutions (BFIs), Climate Funds
Subsidies	MFIs, BFIs, Climate Funds
Concessional Loans	MFIs, BFIs, Climate Funds
Market Rate Loans	MFIs, BFIs, Climate, Banks/FIs
Loan or Credit Guarantees	MFIs, BFIs, Climate Funds
Carbon Credit Revenues	MFIs, Climate Funds, Private Carbon Funds
Corporate Loans	Banks/FIs
Project Debt Financing	Banks/FIs, Climate Funds, Venture Funds, Infrastructure Funds, Equity Funds
Mezzanine Financing	Banks/FIs, Venture Funds, Pension Funds
Re-Financing	Banks/FIs, Venture Funds, Equity Funds, Pension Funds
Project Equity Financing	Banks/FIs, Climate Funds, Venture Funds, Equity Funds
Corporate Equity	Venture Funds, Equity Funds, MFIs (e.g. IFC)

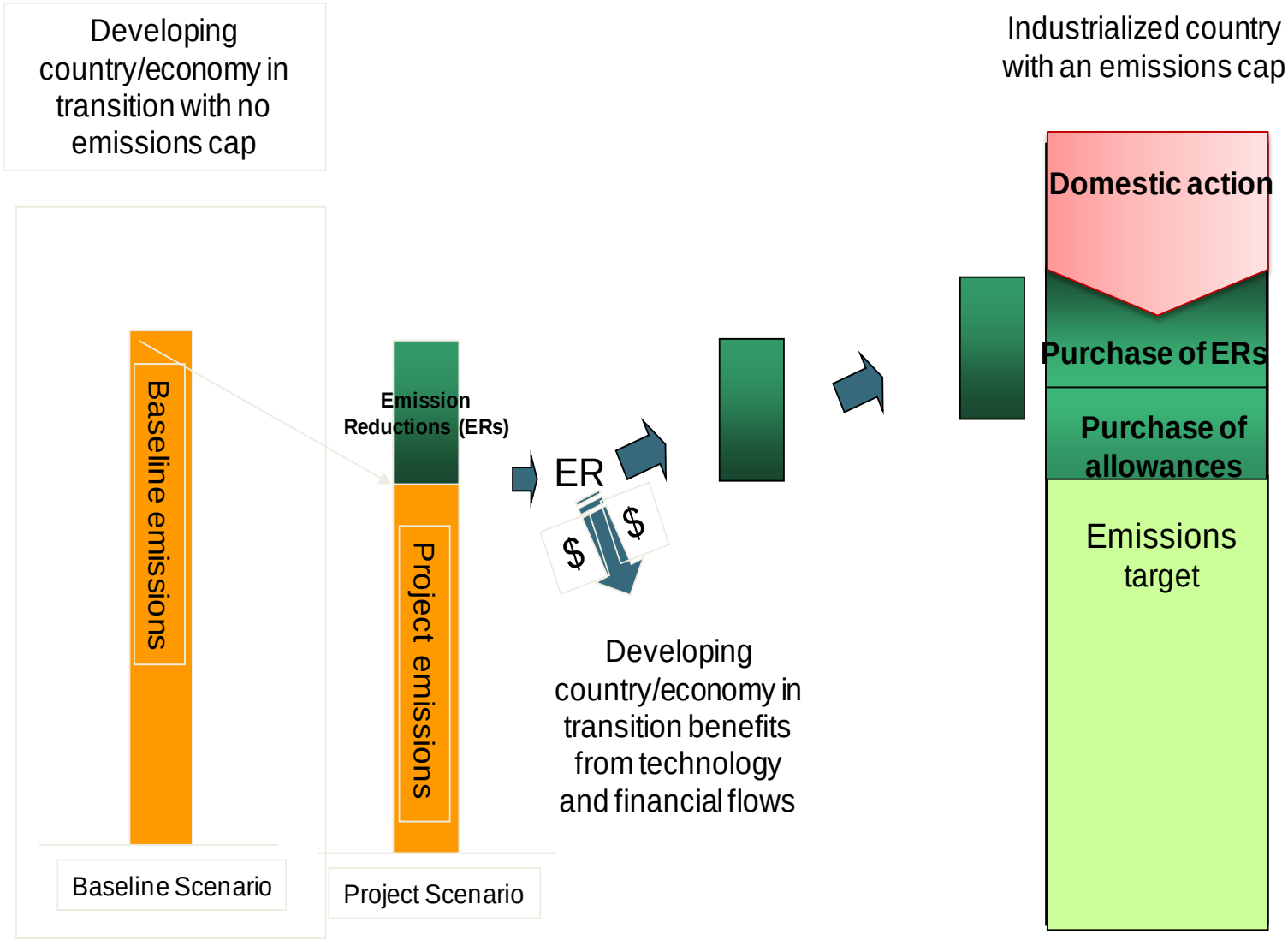
Detailed Information on Financing Sources

During the preparation the guidebook, the author team collected detailed information on 110 multilateral, bilateral and private financing sources for mitigation, which will be converted into a database and put on the TNA project website: www.tech-action.org

The information is organized in a standard format and provides the following (where available):

- Name of Financing Source
- Sponsoring Organization
- Address
- Key Contact
- Objectives
- Region/Country Focus
- Sector Focus
- Technology Focus
- Type of Funding Support
- Management/Governance
- Proposal/Application Requirements
- Eligibility Criteria
- Proposal evaluation Criteria
- When and How to Apply
- Procedures for Fund Disbursement
- Size of Funding Source
- Funding Limit for Individual Projects
- Monitoring/Evaluation Procedures
- Sources for Further Information

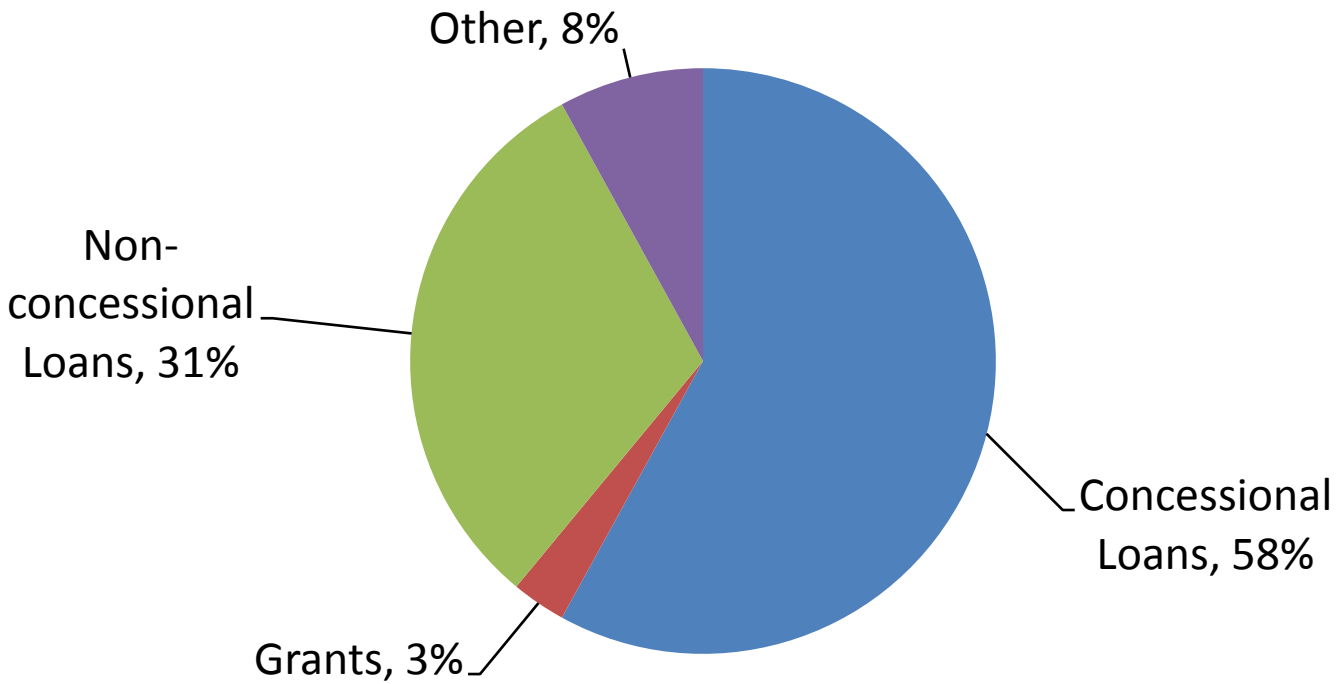
Project-based carbon finance – CDM and voluntary carbon market projects



Carbon funds

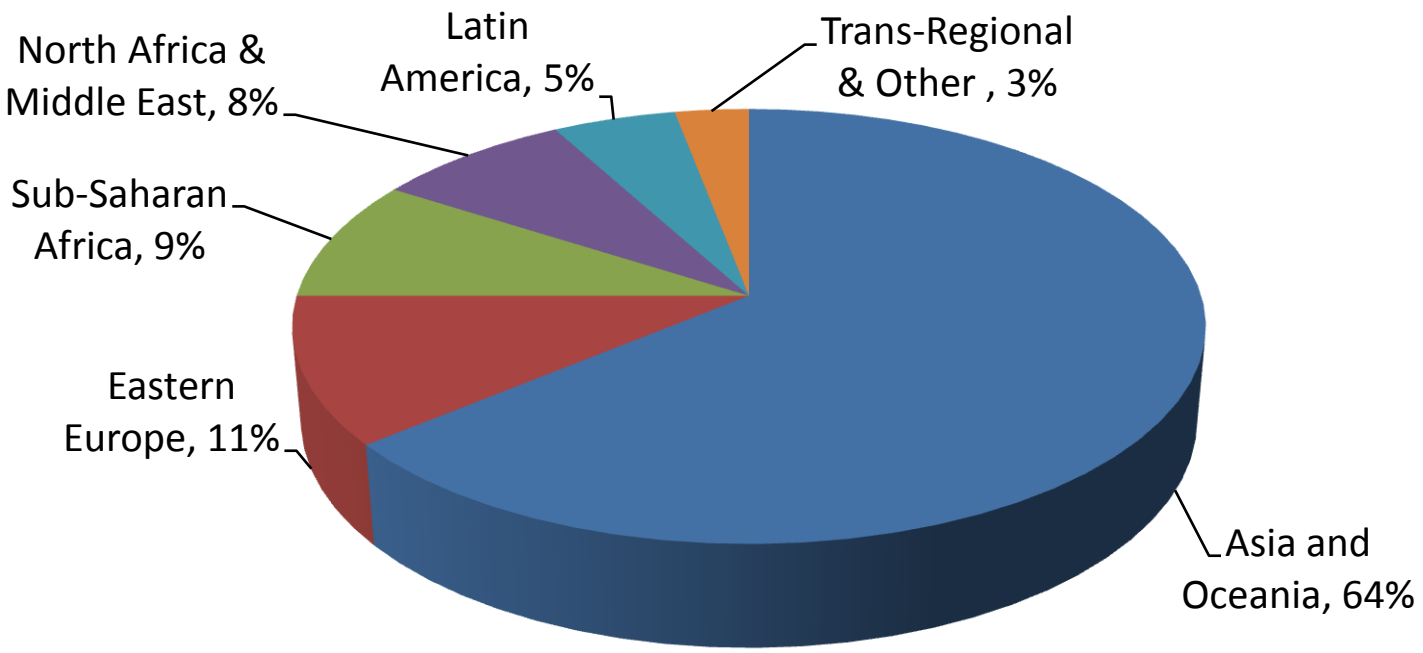
Fund Name	Operated by	Fund Size	Characteristics
ADB Asia-Pacific Carbon Fund	Asian Development Bank	$152 m	Upfront financing of up to 75% of expected CER volume
ADB Future Carbon Fund	Asian Development Bank	$115 m	Upfront financing of up to 50% of expected CER volume
AfDB African Carbon Market Support Program	African Development Bank	N/A	Assists in the development of PINs and PDDs
African Carbon Asset Development Facility	UNEP	$87 m	Technical assistance, transaction cost sharing, and financial institution outreach
Carbon Finance for Agriculture, Silviculture etc	Fonds Francais Pour l'Environment Mondial	€2.3 m	Capacity building, project management, knowledge management
EIB-KfW Carbon Program II	European Investment Bank	€100 m	Purchase carbon credits from LDCs vulnerable to climate change
EIB Post-2012 Carbon Credit Fund	European Investment Bank	€125 m	Purchase CERs with vintage 2013-2020
Forest Carbon Partnership Facility (FCPF)	World Bank	$160 m	Assist preparing large scale emission reduction from deforestation and land degradation
Multilateral Carbon Credit Fund (MCCF)	European Investment Bank	€208.5 m	Carbon fund dedicated specifically to countries from Central Europe and Central Asia
UNDP/MDG Carbon Facility	UNDP	Project-specific	Promoting emission reduction projects which contribute to MDGs
World Bank Carbon Funds and Facilities	World Bank	$2.5 bn	Possible upfront payment (max. 25% of transaction amount) and post-2012 purchase
World Bank Carbon Partnership Facility	World Bank	N/A	Provide carbon finance for post-2012

Distribution of Financing Mechanisms from Leading Bilateral Financial Institutions



Regional Distribution of Multilateral and Bilateral Financing for Mitigation

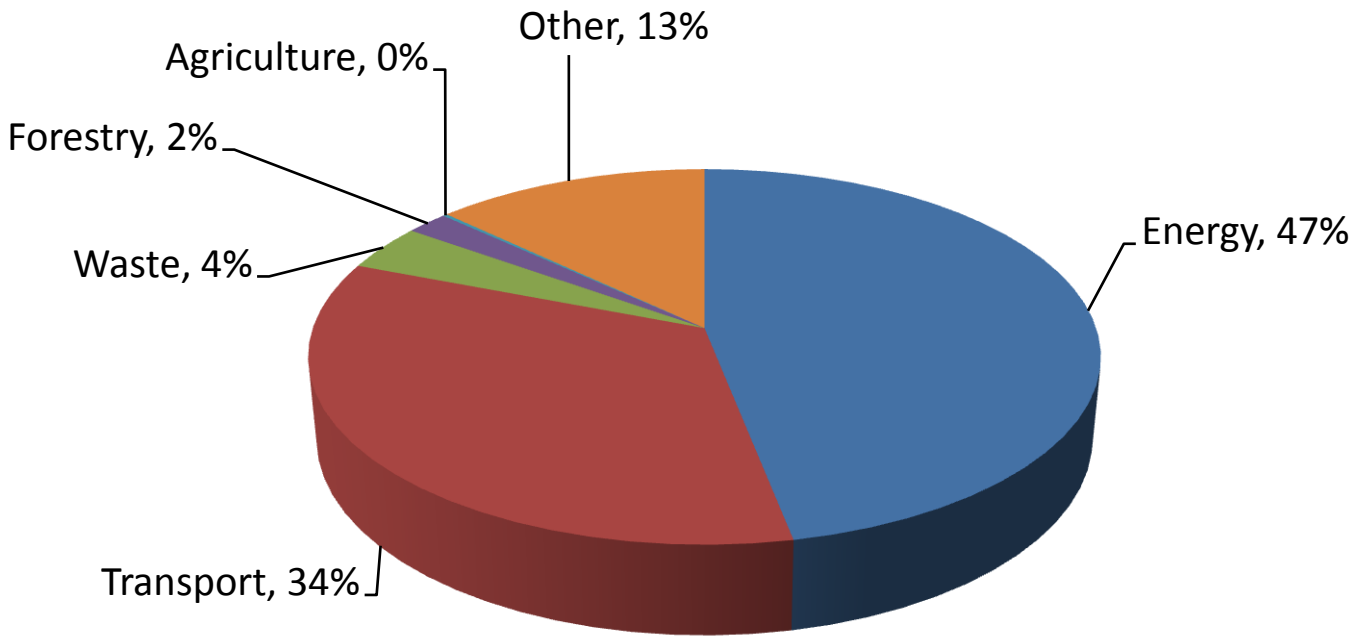
(Includes information from JICA, KfW, AfD and EIB)



Source: Stockholm Environmental Institute, Bilateral Finance Institutions and Climate Change: A Mapping of Climate Portfolios, May 2009

Technology/Sector Distribution of Financing for Mitigation

(Includes information from JICA, KfW, AfD and EIB)

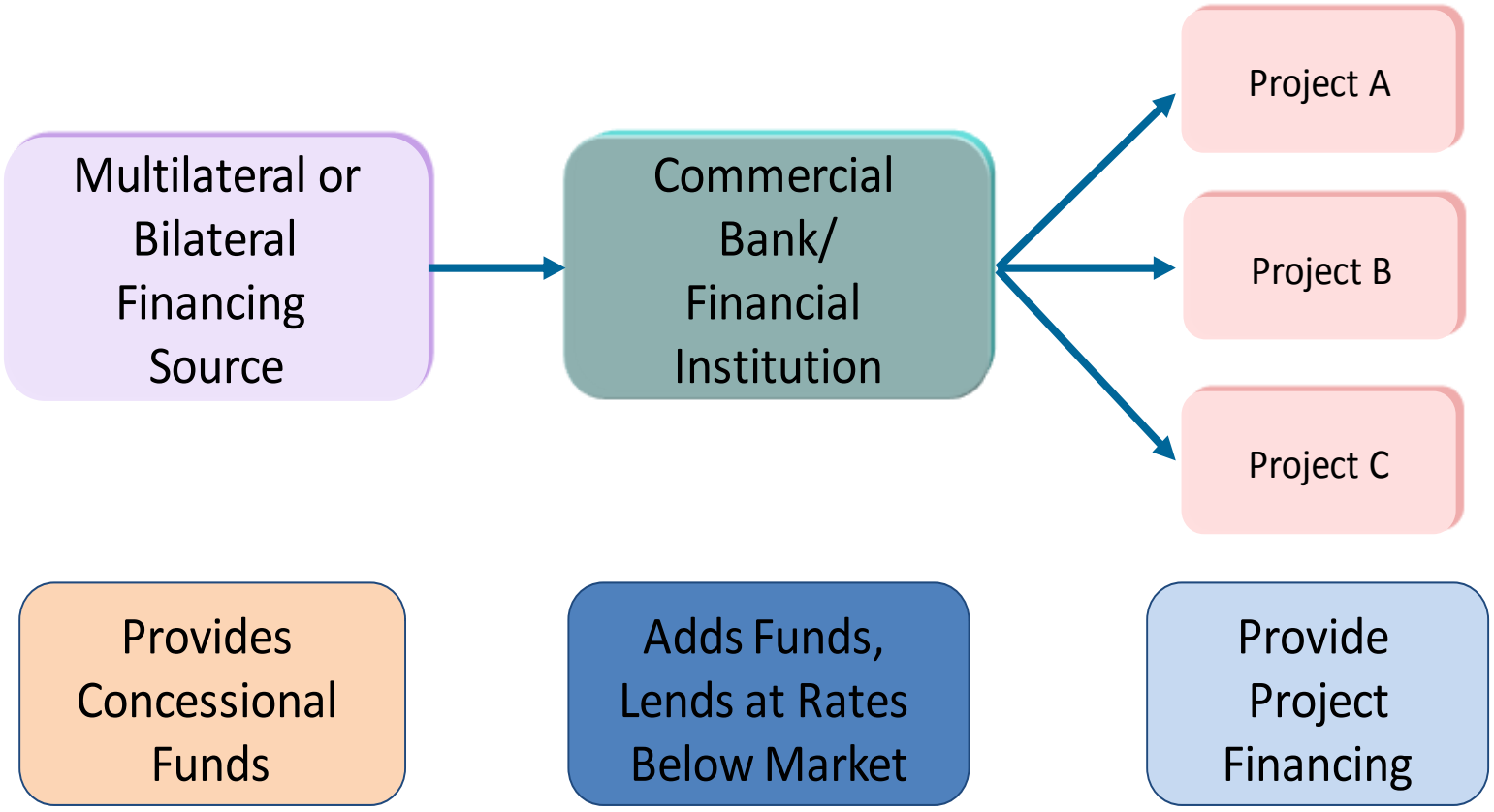


Source: Stockholm Environmental Institute, Bilateral Finance Institutions and Climate Change: A Mapping of Climate Portfolios, May 2009

Key features of multilateral and bilateral financings sources for mitigation

- Fund comes from governments of OECD countries
- Objectives: Financing programs and projects that will reduce GHG emissions
- Financing mechanisms: Grants
  - Concessional loans
  - Market-based loans
  - Credit lines
  - Credit or risk guarantees
  - Equity financing

Illustrative Example of Concessional Loan for Mitigation Projects



Eligibility Conditions

- Geographic or regional setting
- Technology/Sector covered
- Type of financing (grant. Concessional or market-based loan, guarantee, equity finance, etc.)
- Size of project (minimum and maximum)
- Co-financing or cost-sharing requirements
- Type of proposing entity (government agency, NGO, PPP, private sector, etc.)
- Implementation time frame
- Etc.

Project/Program Evaluation Criteria

- Relevance to objectives of the financing source
- Relevance to objectives of the funding agencies (who have established the financing source)
- Total funding sought
- Amount or % of co-financing
- Estimated GHG reductions
- Cost of achieving the reductions (such as $ per ton of CO_2 equivalent saved)
- Economic and financial viability
- Experience and capabilities of proposing entity
- Program management plan
- Implementation plan
- Evaluation plan
- Etc.

Private financing

- 59 billion USD in 2009/2010, 59% of the total funding for mitigation
- Mainly in the form of debt funding, also some equity funding
- Substantial growth in the last few years, especially for renewables
- Key consideration in investment/funding decision making by provide funding sources: risk-reward ratio

Private funding

Two main types: debt, mainly provided by banks and financial institutions; equity mainly provided by private investors, also by some banks/financial institutions and public funds

Typical debt financing:

- Corporate lending
- Project financing, or limited resource finance
- **Mezzanine Finance**
- **refinancing**

Private equity funding

Different focuses of different private funding providers

- **Venture Capital providers** will focus on 'early stage' or 'growth stage' (depending on how far from the laboratory and commercial roll out) technology companies;
- **Private Equity Firms**, which focus on later stage and more mature technology or projects, and generally expect to 'exit' their investment and make their returns in a 3 to 5 year timeframe;
- **Infrastructure Funds**, traditionally interested in lower risk infrastructure such as roads, rail, grid, waste facilities etc, which have a longer term investment horizon and so expect lower returns over this period;
- **Institutional Investors** such as Pension Funds have an even longer time horizon and larger amounts of money to invest, with lower risk appetite.

Most equity investors use IRR as the yard-stick for investment decisions

Characteristics of Public-private partnerships for mitigation financing

Type of PPP	Brief Description	PPP Features			
		Agreement between Public and Private Entities	**Allocation of Risk between Partners**	**Mobilization of Private Sector Financing**	**Payment to Private Sector for Providing Services**
Dedicated Credit Lines	Mechanism under which governments or donors provide low-interest loans to LFIs to encourage them to offer sub-loans to implementers of EE projects	Loan agreement between partners	Project financing risk shared between partners	Private partner generally provided co-financing	LFI earns fee by on-lending funds at higher interest
Risk-Sharing Facilities	Mechanism where governments or multilateral banks offer guarantee product to absorb some EE project risks and encourage involvement of LFIs in EE financing by reducing their risk	Guarantee Facility Agreement (GFA)	Public partner absorbs some financial risk	Mobilizes additional private sector financing by risk reduction	LFI earns interest on additional loans mobilized
Energy Saving Performance Contracts (ESPCs)	ESCO enters into term agreement with public agency to provide services, with payments contingent on demonstrated performance	Energy services Agreement (ESA)	Performance risk generally borne by ESCO	ESCOs mobilize private-sector financing	Performance-based payment to ESCO

Existing Funding for Adaptation

Based on the draft *Guidebook for Adaptation Funding Sources and Their application* prepared under the TNA project

Published estimates of adaptation funding needs in developing countries by 2030

Sector	Study		
	UNFCCC (2007)	Parry et al. (2009)	World Bank (2010a)
Agriculture, forestry, fisheries	$bn 7	$bn 7	$bn 6
Water resources	$bn 9	Much higher than other two studies	$bn 11
Human health	$bn 5	At least $bn10	$bn 3
Coastal zones	$bn 5	$bn 10	$bn 29
Infrastructure	$bn22–41	$bn 65–154	$bn 29
Extreme events	$bn 2	$bn 2	$bn 7
Fisheries	$bn 2	$bn 2	$bn 2
Ecosystems	$bn 2	$bn 33–40[a]	$bn 2
Total	$bn 54–73	> $bn 129–225	$bn 80–90[b]

Source: Parry et al. (2009) reported a global estimate of $65–80 billion. We assume that half of this amount is in developing countries.

b. Range is from the World Bank (2010a) report. Estimates by sector are based on reported numbers for the 2020s and 2030s.

Source: Smith et al., 2011.

Existing UNFCCC funding sources for adaptation

Fund name	governanc e	Total fund size (inc.	Amount currently allocated	Eligible sectors and activities	Geographical focus
Adaptation Fund	Adaptation Fund Board/ GEF	US$310 m (Jan. 2011)	US$12 m (Mar. 2011)	All vulnerable development sectors where 'sufficient information is available to warrant adaptation activities'.	Developing countries that are signatories of Kyoto Protocol
Least Developed Countries Fund (LDCF)	GEF	US$324 m (Jun. 2011)	US$153 m (Jun. 2011)	All vulnerable development sectors identified in the National Adaptation Plan of Action (NAPA). Activities funded must be in line with the specific 'urgent and immediate adaptation priorities' identified in the .	Least Developed Countries who have completed a National Adaptation Plan of Action (NAPA)
Special Climate Change Fund (SCCF)	GEF	US$180 m (Jun. 2011)	US$120 m (Jun. 2011)	Two funding windows exists: (a) Adaptation and (b) Technology Transfer. (a) covers long and short term adaptation activities in all vulnerable sectors where 'sufficient information is available to warrant such activities'. (b) covers technology transfer activities related to both mitigation and adaptation.	All non annex I signatories of the UNFCCC – with special emphasis given to the 'most vulnerable' countries in Africa, , and the Small Island Developing States (SIDS).

Multilateral & bilateral funding sources for adaptation

Source	Gov.	Type	Size	Sector focus	Geo. focus
African Development Fund	AfDB	Loan	Approx. $10.4 bn (Budget for 2011-2013)	No sectoral limitations. The AfDB contributes to the promotion of economic and social development in 40 African LDCs by providing concessional funding for projects and programs, as well as technical assistance for studies and capacity-building activities.	Sub-Saharan
Africa Challenge Fund: Renewable and Adaptation to Climate Technologies (REACT)	KPMG on behalf of donors	Grant Loan Risk mgmt.	$50-100 m (total size of fund)	No sectoral limitations. The fund is exclusively focused on supporting innovative business ideas from private entities within the areas of renewable energy and adaptation	East African. Private entity applicants only.
ClimDevAfrica Special Fund	AfDB	Grant	$136 million (budget 2010-2012)	No clear sectoral limitations. The fund will support 'implementation of demonstration adaptation practices' as well as various capacity building activities.	AfDB member countries.
Global Climate Change Alliance	EU	Grant	€164 m for 2008-2010) €140 million (Feb. 2011)	Covers both mitigation and adaptation. Adaptation is a top priority. Focal areas for adaptation support: (a) Development of adaptation plans in vulnerable countries other than LDCs, (b) Support for NAPA implementation, (c) Adaptation activities in the Water and agriculture sector, (d) Sustainable natural resource management, (e) Promoting disaster risk reduction	Currently covers 18 countries globally.
Global Facility for Disaster Reduction and Recovery (GFDRR)	World Bank	Grant	$244 million (November 2010)	Mainstreaming of disaster risk reduction in development. E.g. activities to reduce risks from climate related disasters (flooding, cyclones, droughts etc.), climate resilient reconstruction of infrastructure after disasters, and other DRR related adaptation activities.	Global

Bilateral and Multilateral funding sources for adaptation (cont'd)

Source	Type	Fund size	Allocated	Sector focus	Geo. focus
Hatoyama Initiative/ Cool Earth Partnership	Grant Loan TA	Around $750 million (5% of total pledge)	$218 million (June 2011)	Not clear. This is not a fund as such, but an initiative covering all of 's international activities in relation to climate change. Sectoral focus and eligibility is dependent on bilateral discussions with .	Global. Dependent on bilateral discussion with
International Climate Initiative	Grant Loan	€371 million (2008-2011)	All funding allocated for 2011. €120 m per year estimated for 2012→ (50% for adaptation /REDD)	No clear sectoral limitations. Mentioned sectors include: food security and agriculture, sustainable land management, water resource management, sustainable biomass production, human health, disaster risk reduction and migration management.	Global. 'Particularly vulnerable countries and regions'.
Multilateral Investment Fund (MIF) (run by ADB)	Grant Loan EquityTA	Approx. $120 m peyear (yearly budget)	Unknown	No clear sectoral limitations. The MIF works primarily with the private sector (small businesses, microfinance etc.). Adaptation is one of the priority themes.	25 countries in Latin America and where IADB have offices.
Strategic Climate Fund – Pilot Programme for Climate Resilience (PPCR) (Run by World Bank)	Grant Loan TA	$986 m (May 2011)	$27 million (May 2011)	All development sectors and priorities identified in NAPAs or other relevant country studies and strategies. A specific 'Strategic Program for Climate Resilience' (SPCR) will be developed in each PPCR country and will guide further implementation and funding.	Supporting active in 18 countries globally

Some TNA countries can develop project proposals to use their GEF-5 allocations

- GEF encourages countries to use their GEF-5 (2010-2014) STAR (System for Transparent Allocation of Resources) allocations for project ideas from their TAPs
- TNA countries that have not used any of their GEF-5 STAR allocation for climate change: Argentina, Sudan, Morocco, Ecuador, Nepal, Sri Lanka, Cambodia, Bhutan, Cote d'Ivoire, El Salvador, Georgia, Mauritius, Moldova, and Rwanda
- As of November 2011, most developing countries still have some remainder under GEF-5 allocations
- Further information: GEF-5: http://www.thegef.org/gef/strategies

  Country fund allocations and utilization status: GEF report on the implementation of STAR Nov 2011 .pdf