United Nations Framework Convention on Climate Change

Climate finance for national action and mechanisms

Capacity building workshop on development of CDM and NAMA for the public and private sector in Zimbabwe

24-25 August, Juliusdale, Nyanga

UNFCCC Secretariat

Grant A. Kirkman - Head SDM Relations Management

The Paris (outcome) Agreement

“global investment in clean technologies is running at about $330 billion USD a year, but global climate finance efforts needs to reach $1 trillion USD per year by 2030 to keep the average global temperature rise under the agreed upon 2°C target“

Christiana Figueres

former UNFCCC Executive Secretary

“climate change needs to be seen in terms of what it means for the wellbeing of people”

Patricia Espinosa

Undersecrertery General & UNFCCC Executive Secretary

Unlocking renewable energy investment

IRENA
International Renewable Energy Agency

”If public finance institutions focus on **risk mitigation rather than crowding out** private investors; if **public and private** finance institutions **join forces*** to **aggregate smaller projects**; if local FIs leverage local networks and knowhow to **build strong project pipelines**; & if policy makers support these actions through **dedicated financial risk-mitigation facilities**, investment levels that may now sound unrealistic can be reached”

Adnan Z. Amin
Director-General
International Renewable Energy Agency

*standardise contract templates, project documents & harmonize standards

From technology adoption to the energy sector

Energy technology challenges

- Slow technology adoption
  - Lack of regulatory support
  - Difficult investment environment
  - Poor intellectual property protection

- Difficult characteristics of the energy sector
  - Structural dominance by large utilities
  - High capital intensiveness
  - Preference for status quo investment paradigm
  - RE projects are more costly than conventional energy projects
    - Higher capital requirements per unit (but lower operating costs)
    - Smaller scale but same development costs as bigger projects
    - Dependence on local resources, often far from load centers
    - Higher interconnections costs due to remote locations

Source: Frankfurt School of Business

Regulation, policy challenges

Policy frameworks, project development risks

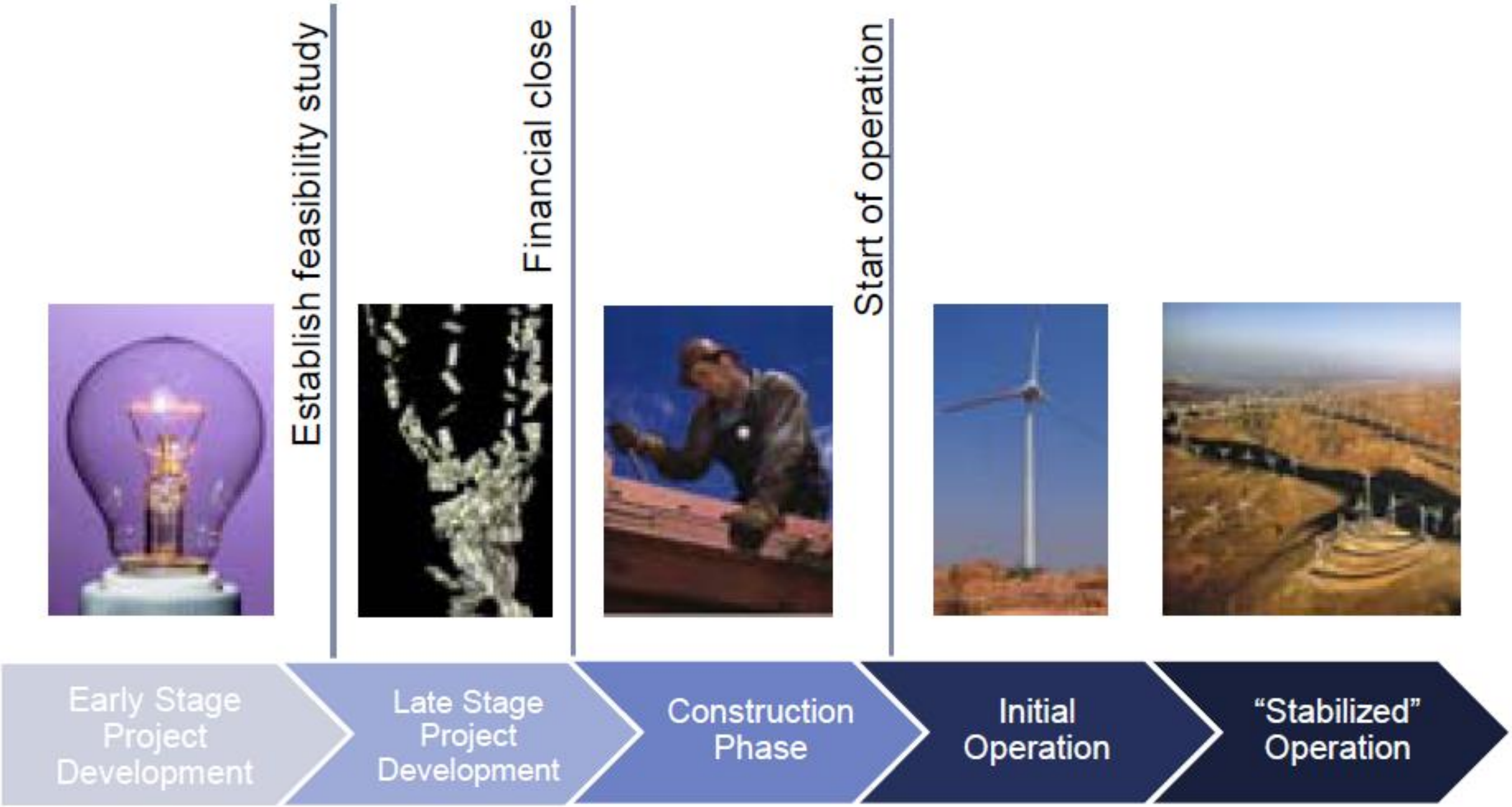
- Missing policy and regulatory frameworks
  - Lack of clear and concise policy and regulations in many developing countries
  - No clear 'first mover' advantage for frontier market project developers

- Risky project development in the RE sector
  - Project development costs are considered 'soft costs'
  - Projects developments costs, especially in RE, are perceived to be high risk
  - Development costs are often underestimated and under reported

- Additional challenges in developing countries
  - Lack of local project developer expertise
  - Lack of sufficient equity resources in early/late stage investments
  - Lack of appetite for least developed or low income countries
  - Lack of experience of institutional investors in seed capital investments

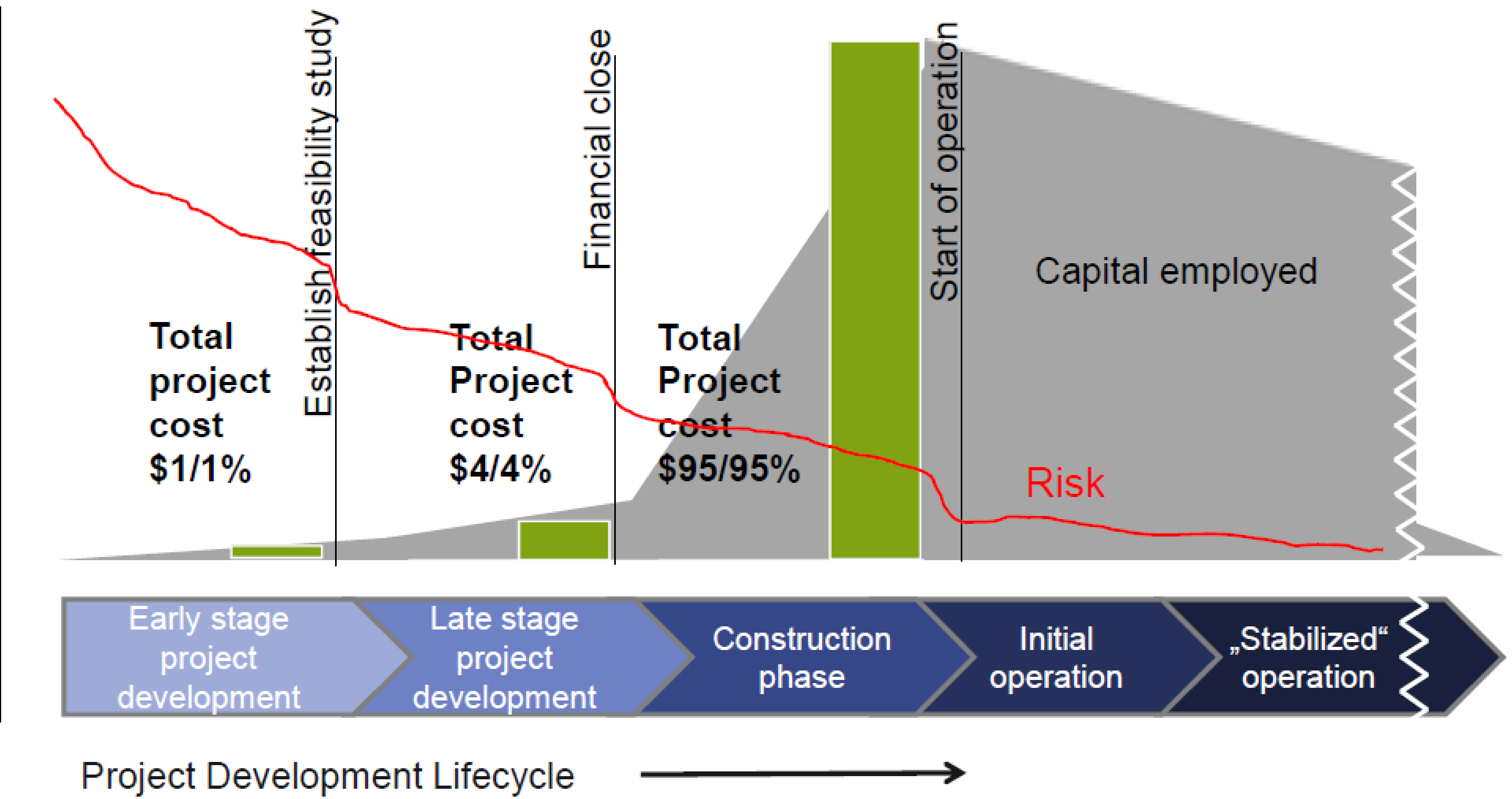
Source: Frankfurt School of Business

The project development life cycle



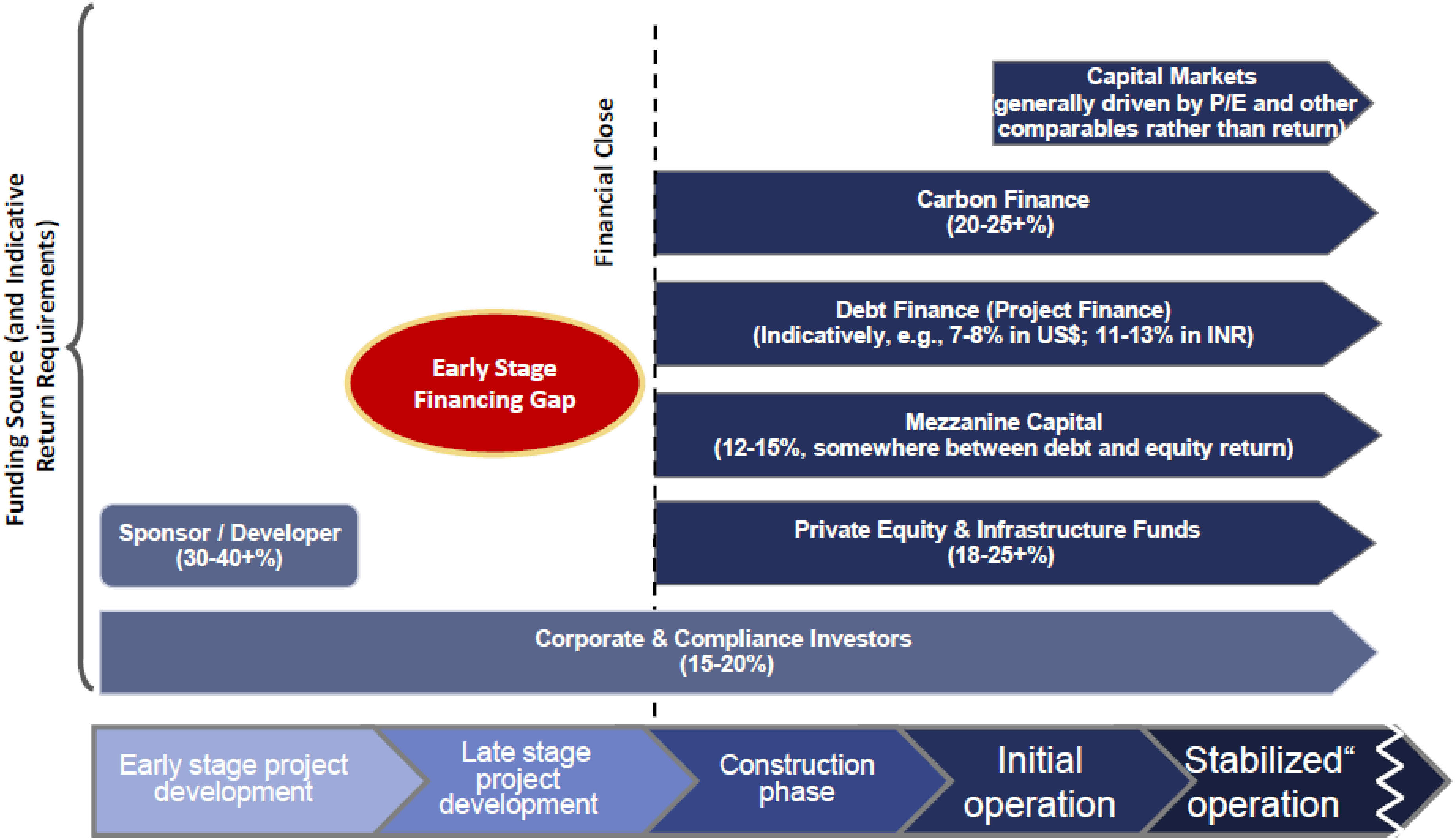
Source: Frankfurt School of Business

Project life cycle and capital allocation: critical 'peanuts'



Source: Frankfurt School of Business

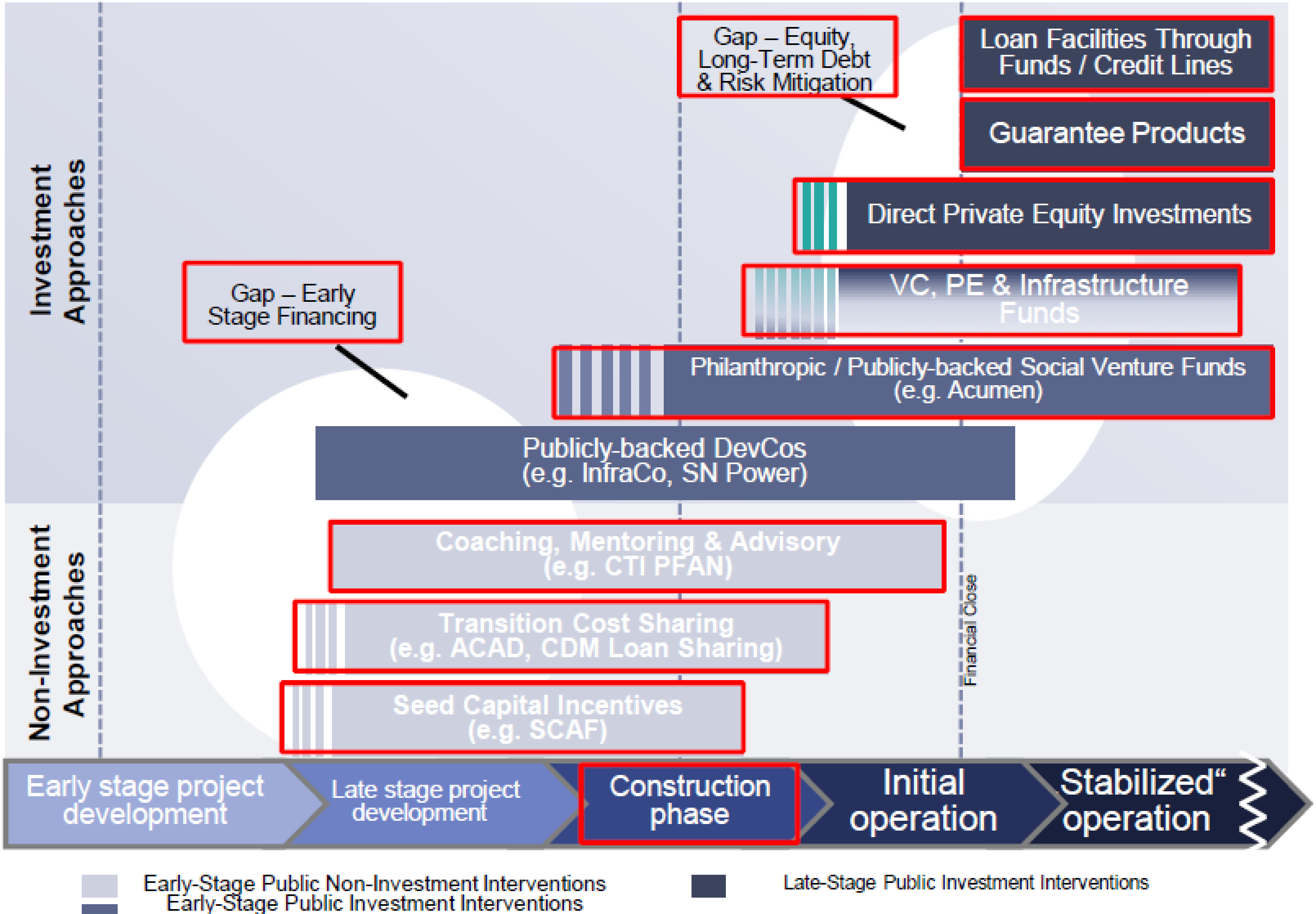
Private investors not willing to close the gap



Source: UNEP, Aequero

Source: Frankfurt School of Business

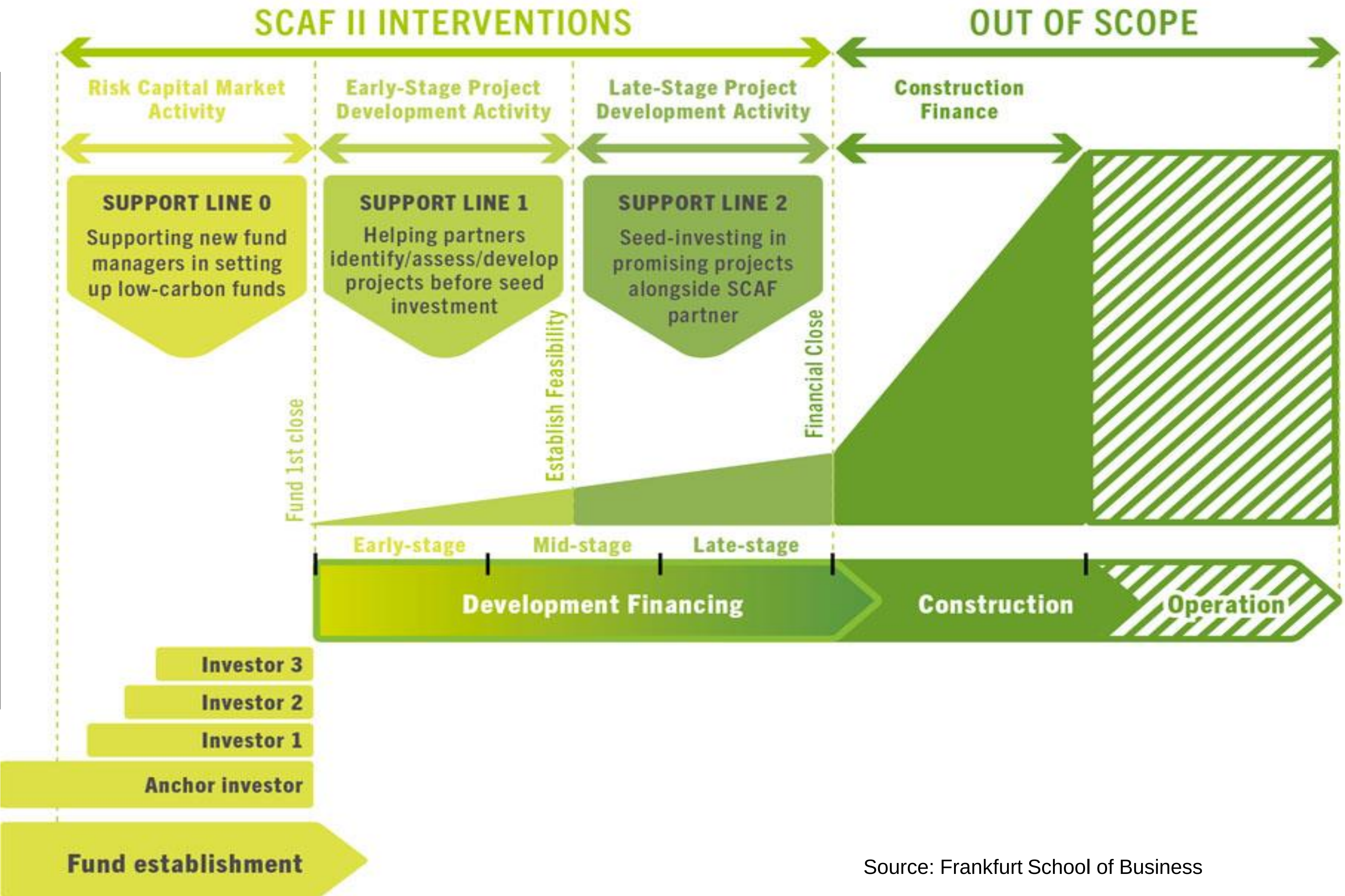
Limited number of programs aimed at the seed capital phase



Source: UNEP, Aequero

Source: Frankfurt School of Business

Seed Capital Assistance Facility (SCAF)

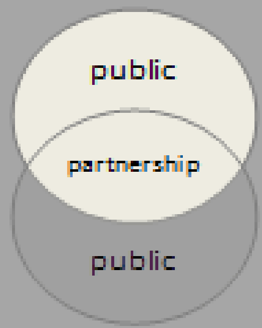


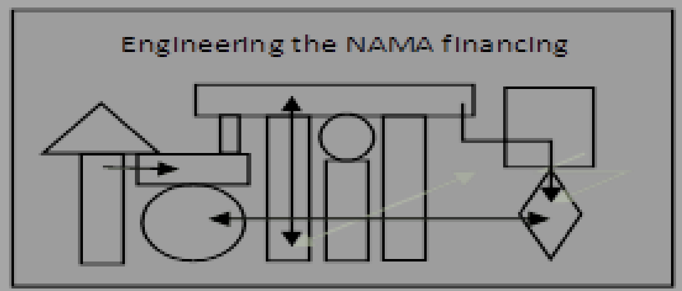
Source: Frankfurt School of Business

Details of SCAF support lines

	Support Line 0	Support Line 1	Support Line 2
Purpose	Help first time fund managers to reach first financial close	Aimed at developing the pipeline of early stage investments	Co-finance elevated development cost on a specific projects
Target	Only available for PE/VC funds	PE/VC funds, DevCos	
Activities	Co-finance selected set-up costs, such as - Preparation of offering/placement memorandum; - Legal advisory costs on fund structuring; - Drafting of LP/investor documentation	Co-financing of eligible costs up to a maximum per agreement: - Provides business development support to local project developers; - Identification & training of new 'pre-commercial' clean energy entrepreneurs and developers; - Coaching services for specific promising investment opportunities	30%-50% co-funding for each seed finance transaction for covering a wide range of project development costs: - Technical assessments, ESIA, regulatory reviews - Negotiation of PPAs or other off-take agreements - Operational and maintenance cost reviews and analysis
Amount	Co-financing of up to a maximum of 50% of eligible costs Average amount per partner agreement USD 400,000	Amount per partner agreement USD 700,000 – 900,000	Amount per partner agreement USD 1,600,000 – 1,800,000
Conditions	Anchor investor must be secured	Only for the partners meeting SCAF investment guidelines	Each project to be approved individually for SCAF support
Reimbursement	Reimbursable upon first financial close of fund	Will be given as a grant as a first step	Reimbursable at financial close of the project

Financing mechanisms in the NAMA Facility





PUBLIC SECTOR SOURCING INSTRUMENTS	PUBLIC SECTOR OPERATIONAL INSTRUMENTS	PRIVATE SECTOR FINANCING INSTRUMENTS
Environmental Fiscal Reform	Grants	Equity
Loans	Purchase contracts for goods	First-loss (mezzanine, junior debt)
Soft loans	Purchase contracts for services	
Bonds	Additional payments (e.g. feed-in tariffs)	Loans
Dedicated credit lines	Public procurement guidelines	Bonds
Risk cover, guarantees	Tax credits, reductions/exemptions	Risk cover, guarantees
Grants	Variable or accelerated depreciations	Project Finance
	Removing subsidies	Grants
	Loan schemes	
	Guarantee schemes	

Function & value-addition of the CDM

CDM main function → Compliance for Annex I Parties

↓

Certifying quantified mitigation

↓

Infrastructure

- A **third-party verification** process incl. a system to **accredit** the verifiers
- Registry **systems to account** for and **track** the use of units
- Databases on the **status of projects**, programmes & **credits**
- **Standards** for quantifying, monitoring, assessing, verifying & reporting mitigation outcomes
- Declaration of **sustainable** development and co-benefits
- Alignment with **national development** interests

- Convene **stakeholders** engaged in mitigation activities
- Enhance **coordination** and coherence among them

Function and value-addition of the CDM

Other

CDM functions

- Providing a trusted basis for offsetting of emissions or emission limitation obligation
- Providing a trusted recognition of the outcomes of mitigation activities

Use of same infrastructure: to focus on the use of the certification services provided by the mechanism, as this represents the most effective means of developing and maintaining an effective infrastructure

Traditional finance products and structures used for CDM

Financial products & structures vary in the form in which they have supported the financing of CDM projects. 4/7 key financial products:

1. Frontloading future carbon revenues: upfront payments for emission reductions to enable them to contribute to project financing;

2. Project finance / structured commodity finance / monetization of the future ERPA receivables: financial structures available to blend carbon finance with traditional finance;

3. Bundling: aggregating portfolio of projects to reduce unitary costs and hedge under delivery risk;

4. Insurance / guarantee: products developed to underwrite political, regulatory, and contract-frustration risks at country and sector levels;

New finance products and structures for CDM

- Advance payment for PoA-to-NAMA on a pay-back basis (Foundation Furture of Carbon Market)
- Low income country upfront finance, with cancellation of CERs (CiDev)
- Beyond 2020 on condition N2O mitigation action is legislated (Nitric Acid Climate Action Group);
- Tradeable CER floor price option to gaurentee mitigation (Pilot Auction Facility);
- Recycling of project loans using green bonds, no CERs cancelled (AfDB Green Bond);
- Various financing of CDM projects, with CERs cancelled* (SN Power, Scatec Solar);
- Green Bond (asset backed) on CDM projects, with CERs cancelled (BNP-Paribas, BakerMckensie);
- Continued sponsor investment in the CDM (South Pole Group, Engie, Saber-Abrec, Climate Mondial, Additional Energy etc.)
- Crowdfunding (UNDP)
- Voluntary carbon offsettting (Climate Neutral Now)
- Green Climate Fund

*Norwegian climate finance initiative, with partners : GIEK, Export Credit Norway, DNV GL, Norfund, Norad, Scatec Solar and SN Power

Procedural background - mandates

- **CMP 3 (decision 3/CMP.1, para 4(d)):** The COP/MOP shall assist in **arranging funding of CDM project activities**, as necessary.

- **CMP 3 (decision 3/CMP.1, para 4(d)):** CDM-EB shall make publicly available relevant information, submitted to it for this purpose, on proposed CDM project **activities in need of funding** and on **investors seeking opportunities**, in order to assist in arranging funding of CDM project activities, as necessary.

- **CMP 11 (decision 6/CMP.11, para 7):** to continue exploring the **alternative uses of the CDM.**

- **CMP 11 (decision 6/CMP.11, paras 8 & 9):**
  - explore **finance and the CDM by IFIs**, including through the **GCF** - conducted an in-session workshop on opportunities will report back to **CMP 12**

CDM EB still continues to operate under CMP authority, and its evolution and future will be guided by the Parties to the Protocol

CDM features that are useful for climate finance

- Large pools of bankable and operating projects
- Project replicability, scalability, learning, technology transfer, stakeholder consultation
- Standardization of project impacts (1 tonne is a 1 tonne),
- Basis for allocating climate finance impact to multiple contributors
- Basis for additional finance

What are Green Bonds?

Green bonds are standard bonds with "**green**" or "**climate**" as a bonus

- Proceeds earmarked for climate or environmental projects
- Labelled as 'green' by the issuer

Majority of the green bonds issued are **green "use of proceeds"** or **asset-linked** bonds (e.g. incl. CDM projects):

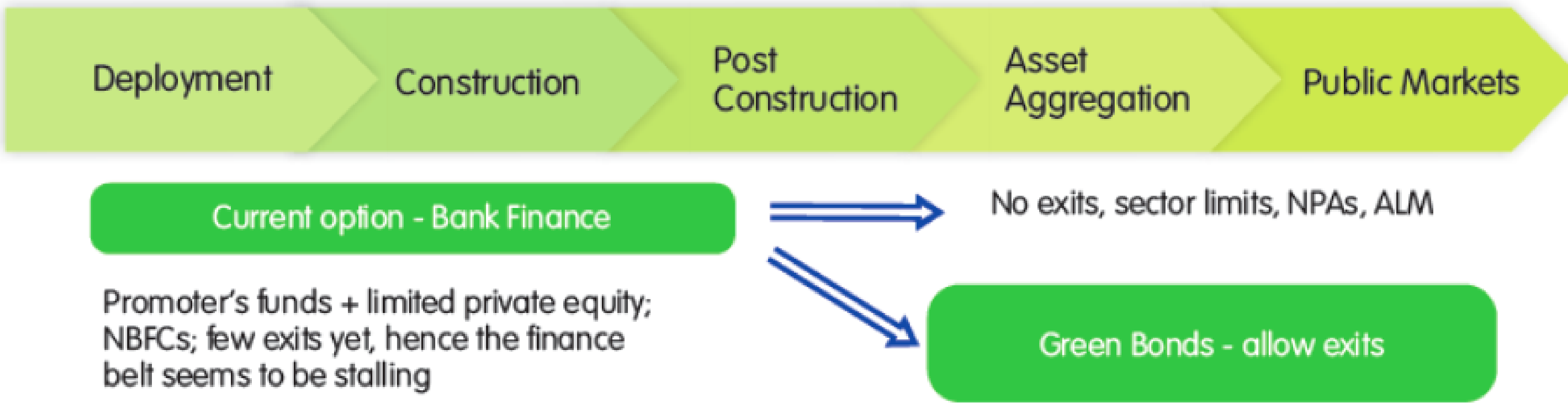
- proceeds are earmarked for green projects, but are backed by the issuer's entire balance sheet

Other types include:

- Green "use of proceeds" **revenue bonds**
- Green **project bonds**
- Green **securitized bonds**

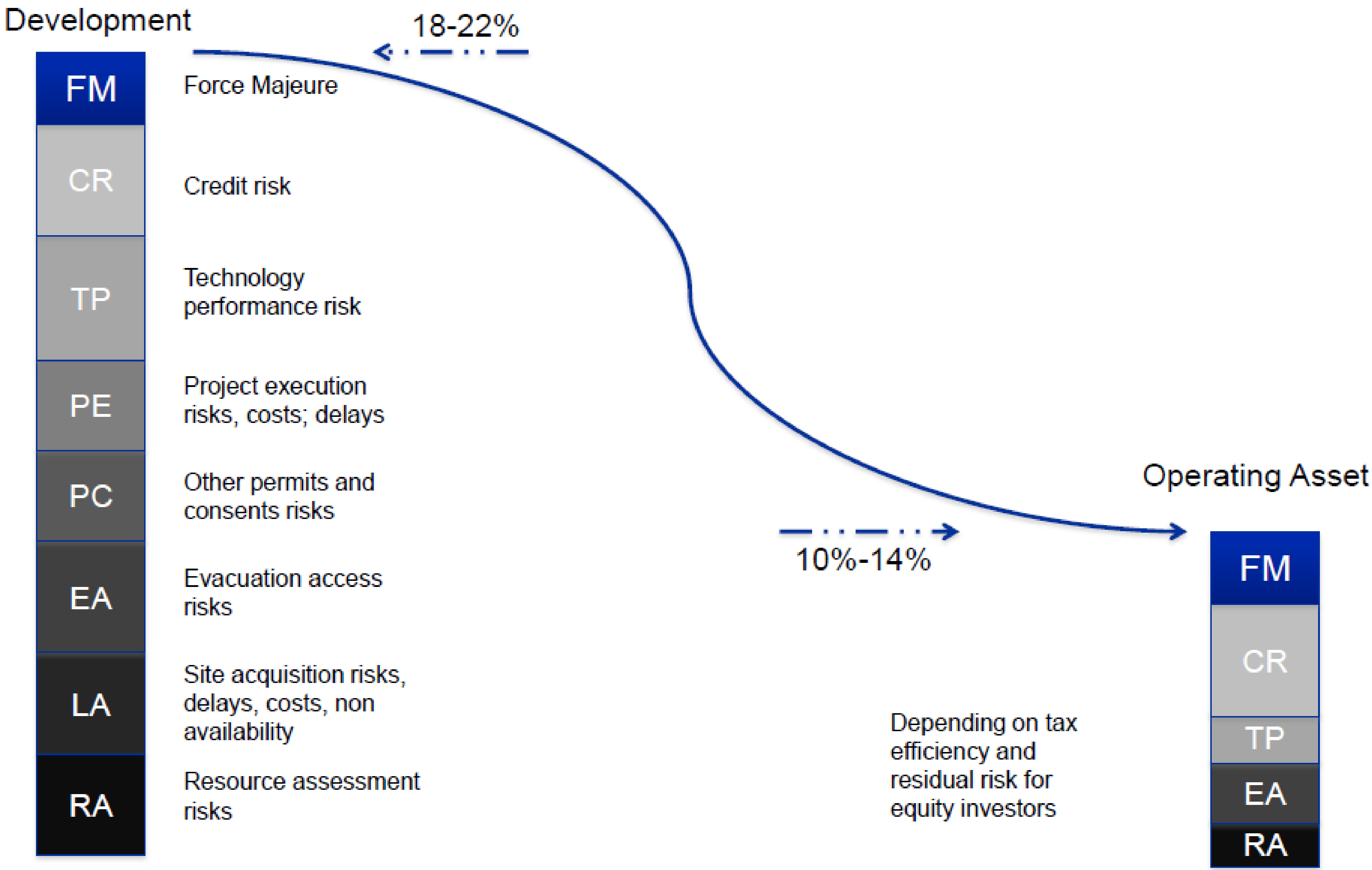
Green Bond Financing Conveyer Belt

Green bonds allow early risk taking investors to exit – creating a financing conveyor belt



NBCF- Non-banking financial company
NPA- Non-performing asset
ALM- Asset-liability management

Changing Risk Profile of RE Projects



Green Bonds Address Challenges and Global Capital

- Long term debt
- Address asset liability mismatch
- Re-finance construction and long term loans

- Low cost funds
- Priority area for green investments

Fund RE projects

Funding across project cycle

Green Bonds

Fixed interest, long tenor

Improve liquidity

- Alternate market for funding RE
- List on alternate investment markets
- Bilateral trade uses risk mitigated, ring fenced structures

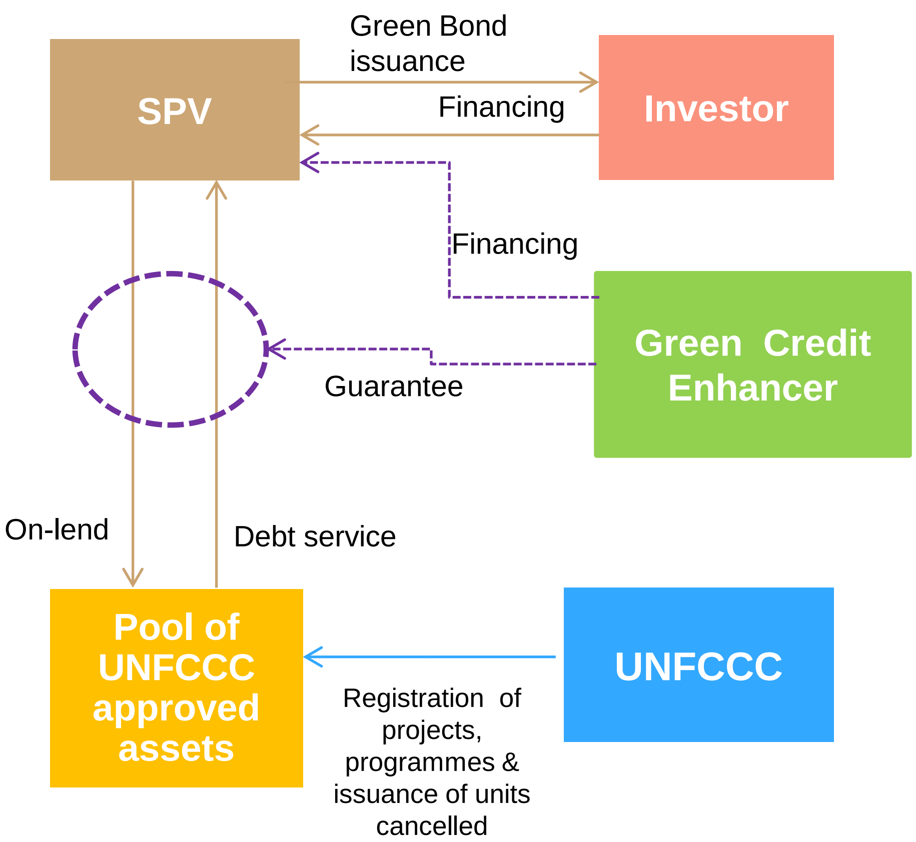
- Lower cost, fixed interest, longer tenure, and non-recourse options of financing for borrowers
- Rapid increase in corporate issuances

State of global green and climate bond market

- $694bn of climate-aligned bonds outstanding, an increase of $96bn from 2015
- Approximately 3,590 bonds from 780 issuers across 7 climate themes: Transport, Energy, Buildings & Industry, Water, Waste & Pollution and Agriculture & Forestry.
- Includes $118bn of labelled green bonds

CDM and green bonds

Indicative structure



Outline

- to re-finance & finance projects/programmes that are registered issue CERs
- providing lower costs of capital
- undertaken by a special purpose public company with limited liability
- funds being raised primarily from institutional investors go to the projects/programmes that produce mitigation outcomes (e.g. CERs)

Supporting the growth CDM enabled Green Bonds

Making it easier for investors

- Identifying “unlabeled” opportunities (e.g. over 8,000 CDM assets)
- Standards (CDM baselines; CER outcome certification)
- Third party “green” assessments (DOEs and 2nd opinion providers)
- Leveraging guarantees to overcome lower bank & sovereign ratings
- Proving finance is additional

Bringing in new issuers

- National development banks (e.g. RCCs, partner banks etc.)
- Commercial banks & financial intermediaries (relations partners)
- Green Climate Fund (toolbox of de-risking instruments; capital markets; scale up private investment)

New instruments

- Aggregation & securitizing projects (pooling of small projects)
- Syndication of climate-related loans (blended financing of projects)
- Convertible bonds (converting loans into equity)

Domestic vs International Green Bonds

Experiences from India

Domestic Green Bonds

Advantages

1. Easy to launch - no currency hedge required
2. No impact of country rating
3. Low risk of RE Projects becoming non performing assets

Key Challenges

1. Stretched domestic banking sector due to infra lending
2. Lack of depth and flexibility in Indian green bonds market limiting demand
3. Limited trading opportunities in domestic market
4. Limited possibility for arbitrage over successive issuances.

Domestic vs International Green Bonds

Experiences from India

International Green Bonds

Advantages

1. Leverage low cost funds from global capital market/s
2. Potential for arbitrage over successive issuances

Key Challenges

1. Currency hedge required, can raise cost of bonds between 4-7%
2. India's sovereign ratings of BBB- impact bond rates or require credit enhancement
3. External commercial borrowing guidelines pose challenges for usage of proceeds from green bonds
4. Double taxation

For International Green Bonds:

- **Exchange rate liquidity facility** – Using foreign reserves, Government of India (GoI) can hedge up to a certain range/period
  - Reduces hedging costs.
- **Credit enhancements** – Sovereign rating for India is BBB*. Borrowers will need credit enhancement to AA** to attract large pension funds, insurance companies, etc.
- **Re-financing and on-lending restrictions** for well rated issuers/portfolios should be removed.
- **Indexing tariff rates to inflation rates**
- **Leveraging guarantees from the Green Climate Fund** to overcome the lower sovereign rating.

For Domestic Green Bonds:

- Special tax rate (say 10%) of green bond interest for the investor, or the tax rate applicable to the investor, whichever is lower.
  - Very attractive to private fund (PF) investors
- Tax benefits available to bonds above a certain rating, issued for green purposes (certified as green)
  - Irrespective of the issuer

Experiences from India

What is crowdfunding?

- Crowdfunding is becoming a significant source of project finance with a market value of US $35 billion in 2015, forecasted to US $100 billion by 2025.
- Over 1,250 crowdfunding platforms globally, 25 focused on renewable energy, which have raised over US$ 165 million for 300+ projects.

UNDP aims to use crowdfunding for renewable energy projects in developing countries that are registered under the CDM and certify the emissions reductions (CER).

Types of investors include:

- Equity - a stake in the project
- Reward - material reward, prize or gift as acknowledgement of support
- Donation - without expectation of a financial or material return
- Loan - interest over a period of time (fixed debenture or bond)

UN DP 50 YEARS

Empowered lives. Resilient nations.

Crowdfunding for Climate Change Mitigation and Green Growth

- To scale-up investments in projects in the **energy sector in developing countrie**s;
- Contribute to the achievements of the SDGs;

- A transparent, internationally recognized and "climate and development additional" certification and verification model for the crowdfunding market.

- The scope is global but will be piloted in 10 countries yet to be selected
- UNDP could partner with UNFCCC to offer a certification/verification service that assesses and measures emission reductions and sustainable development impact of RE investments available through crowdfunding.

- The certified projects that are available for crowdfunding investors are small scale RE projects in developing countries that are registered at UNFCCC as CDM projects and the projects' SD impact are measured via the UNDP SDG-tool.

N.F. Partners

UNEP

UNDP

WORLD BANK GROUP

IDB Inter-American Development Bank

CAF BANCO DE DESARROLLO DE AMÉRICA LATINA

BANQUE AFRICAINE DE DEVELOPPEMENT AFRICAN DEVELOPMENT BANK

UNITED NATIONS UNCTAD

ADB ASIAN DEVELOPMENT BANK

IGES Institute for Global Environmental Strategies

IETA INTERNATIONAL EMISSIONS TRADING ASSOCIATION

UNEP DTU PARTNERSHIP

LEDS GLOBAL PARTNERSHIP

13th Meeting of the Board of the Green Climate Fund

- Approved support for the preparation of NAPs: Executive Director can approve up to USD 3M per country under the Readiness and Preparatory Support Programme support for NAP formulation or other adaptation planning processes. This is over and above the USD 1M that countries receive for readiness project. GCF Sec to engage with AC and LEG in improving access to funds.
- Decides to hold an annual meeting with thematic bodies to enhance cooperation and coherence of engagement and to invite the Chairs of the TEC, CTCN Advisory Board and the Executive Board of UN REDD+ at the fourteenth meeting of the Board to present matters related to technology and operationalizing REDD-plus.

GREEN
CLIMATE
FUND

Highlights of key decisions

- Co-Chairs of the Board to initiate an annual dialogue with **climate finance delivery channels** to discuss coherence and complementarity.

- Established a pilot programme to support micro-, small-, and medium-sized enterprises of up to USD 200 million;

- Approved **project preparation facility** (PPF): Project proponents can apply for up to USD 1.5M to support project preparation activities such as pre-feasibility and feasibility studies, environmental, social and gender studies and risk assessments. Initial allocation of USD 40M

- Approved for **simplified approval process** for micro- (up to USD 10 M) and small-scale (USD 10-50 M) funding proposals that are assessed to fall under the low/no risk category C.

Approvals

Approved 9 projects valued at USD 257 M.

- 2 proposals in Africa requesting USD 43 million (17%);
- 4 in Asia-Pacific requesting USD 123 million (48%);
- 2 in Latin America and Caribbean requesting USD 71 million (27%);
- 1 in Eastern Europe requesting USD 20 million (8%).

Of the 9 FPs for consideration, 3 proposals are targeting LDCs, SIDS and African states totalling USD 79 million, and account for 31% of the total requested GCF funding amount.

Deferred decisions

- Accreditation of 5 institutions: Korea Export-Import Bank of Korea (KEXIM); West African Development Bank (BOAD) based in Togo, the Caribbean Development Bank (CDB) based in Barbados; XacBank LLC (XacBank) based in Mongolia, and the Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ) headquartered in Germany as the Board could not agree whether export credit agencies are eligible or not.

- Programmatic approaches: To take decisions on programmatic funding proposals on a case-by-case basis until full guidelines are approved, outlining a number of overarching principles, such as the alignment with national strategic frameworks and defining the geographical scope.

3 point plan under a Zimbabwe's long term strategy

1. Link climate investment to the INDCs, in order to build on existing momentum and create the basis for **clarity on needs, opportunities, equity and accountabi**lity at a global level;
2. Increase the **quality of information available on such invest**ments, in particular information that can directly inform awareness of investment opportunities as well as needs, at a global, regional and sectoral level;
3. Support the creation of the integrated CLIMATE INVESTMENT FRAMEWORK at national level for implementation of the Zimbabwe NDC, incl. **presentation of investment plans to domestic and external markets and funders** that make more mitigation **projects 'investment grade' & create effective ways of resourcing those initiatives and projects which are more difficult to finance**. Combination of technical support, policy reform, enhanced governance & visibility measures.

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Thank you