Financing Low-Emission Development Strategies (LEDS)

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AFRICA REGIONAL SEMINAR ON LEDS

The Big Picture

Climate change is a "real" phenomenon. At least a ten-fold jump in resource mobilization required to meet the challenge in Africa.

However: climate benefits are long-term vs. costs; many actions have limited or low financial returns; market-based instruments have suffered from overly weak or strong regulatory interference.

Public finance alone incapable of meeting the challenge.

The current global financial environment of mixed help:

(-) credit has tightened due to Basel III

(-) investors seeking higher than ever returns for riskier projects

(+) banks and MNCs are awash with cash

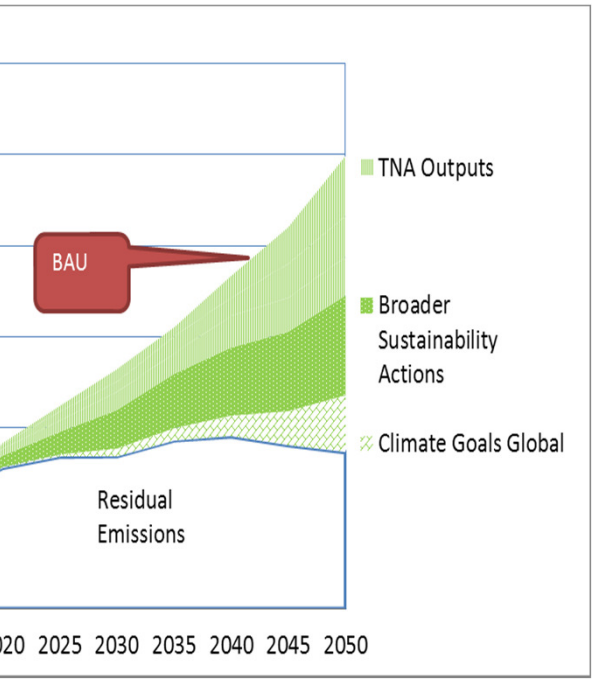
(+) renewables project finance mainstream, pension investment going green

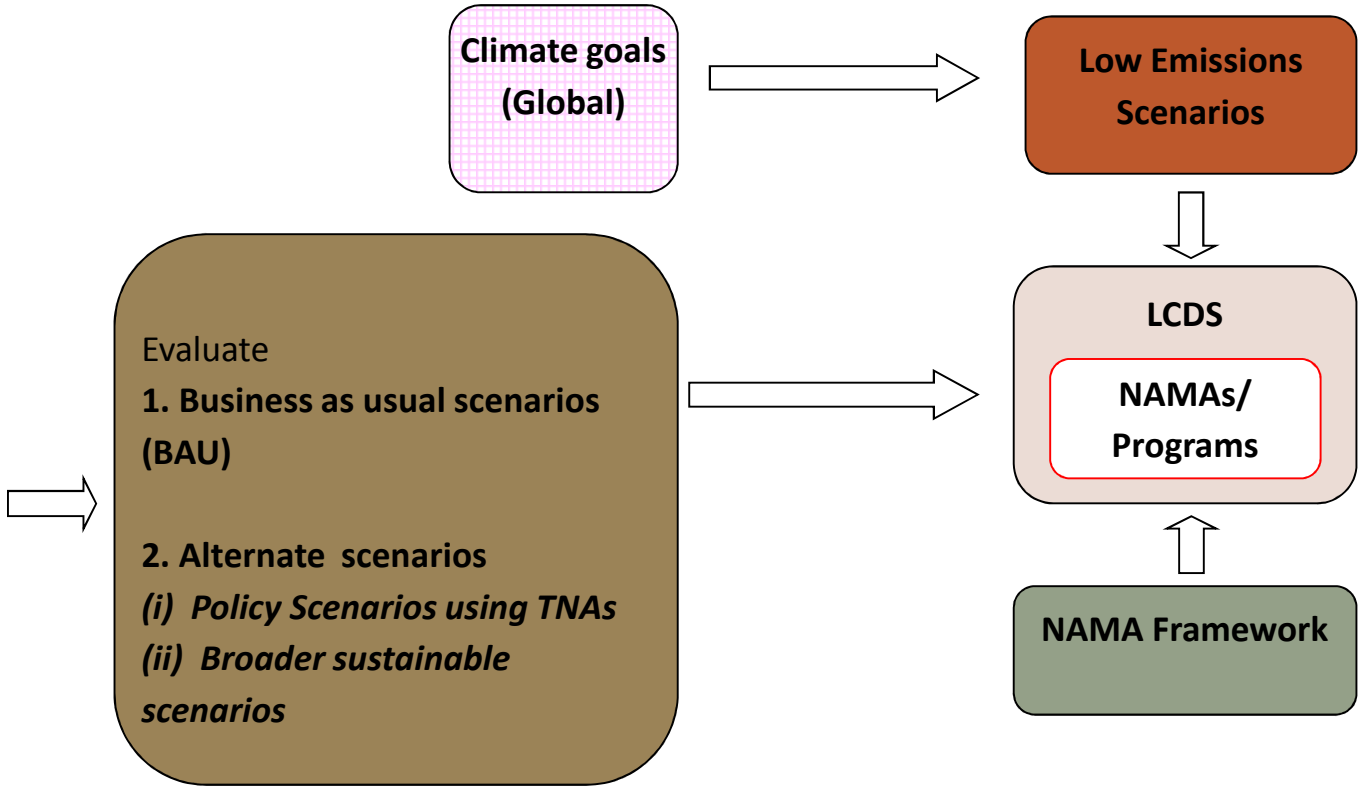
Key Questions

- *How should policymakers approach planning around financing LEDS?*
- *What is best practice around mainstreaming or integrating climate change mitigation into national public finance and budget processes?*
- *What are key steps in the process of financing NAMAs?*
- *How to successfully "crowd in" private capital?*
- *What can be learned from the CDM experience and shortcomings?*
- *What specific resources are available for identifying funders?*

LCDS Framework

nology Action Plans





S, Painuly, J, & Zhu, X (2011) From TNAs to Low Carbon Development Strategies (LCDS) and NAMAs

A step-wise approach

Step 1: clearly define project/program boundary and baselines

Step 2: identify assets, off take products, and investment value chain

Step 3: identify financing options at national level engaging PS

Step 4: identify policy instruments like sector-specific reallocation of budget, cross-subsidization (like health and environment), fiscal and subsidy reforms

Step 5: consider FDI barriers and options to address them

Step 6: enter dialogue with international donors AND hybrids

Step 7: devise national programmes

Step 8: close the financing

Perspectives on Climate Finance

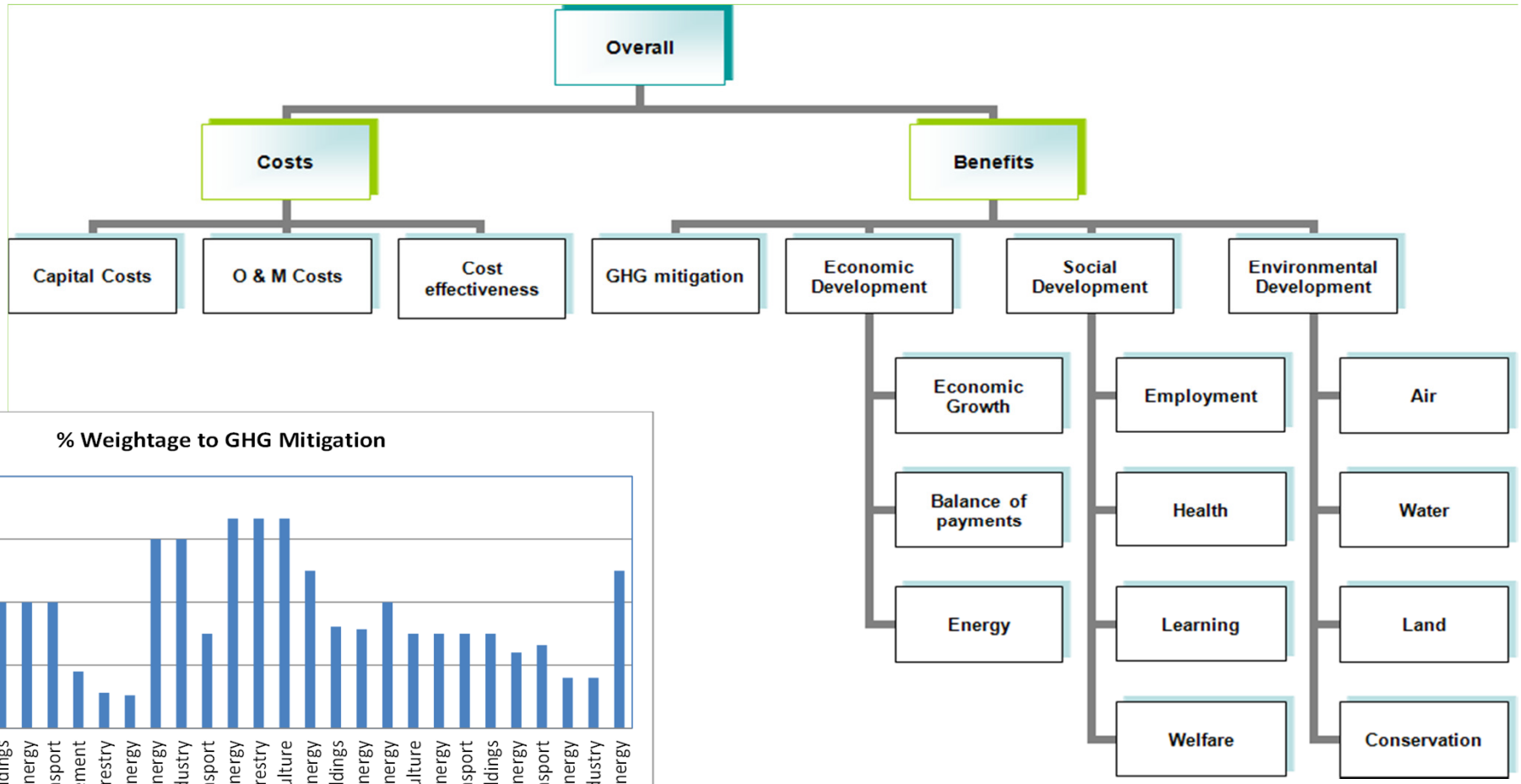
Domestic (Internal)	⟷	International (External)
Macro-level (Sectorial)	⟷	Project /Program level
Investment Capital	⟷	Other (O&M, MRV, Planning, CB)
Public Financing Mechs	⟷	Mainstream Private Finance & Capital Ma

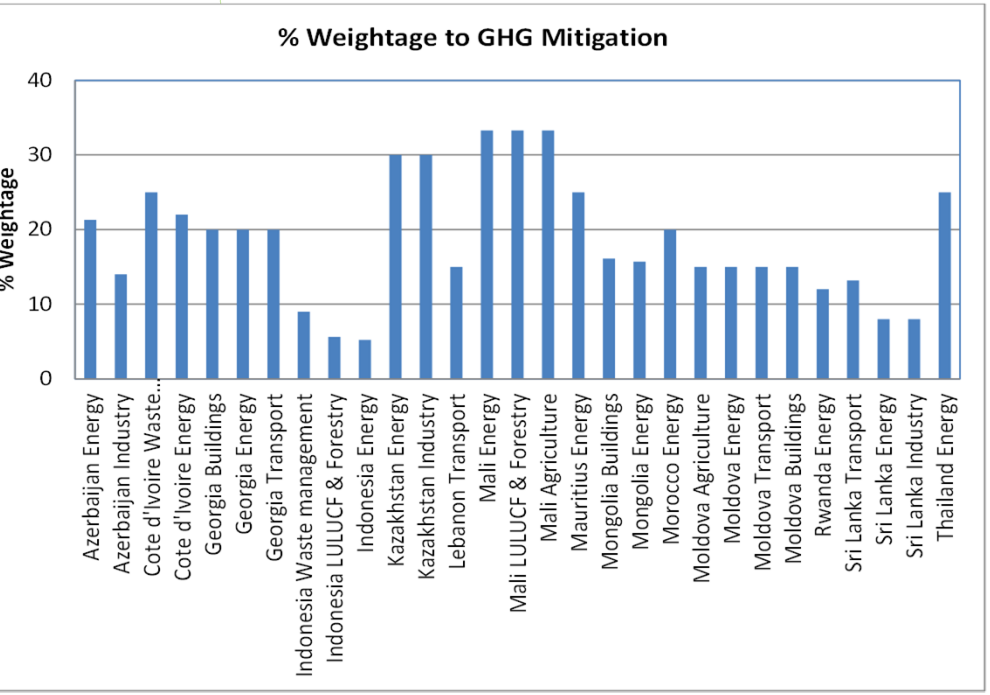
Estimating Financing Requirements

	TOP DOWN	BOTTOM UP
y?	GHG Mitigation Target(s) * Cost Effectiveness† of Elements	Detailed FS conducted for all projects and programs for each relevant sector strategy
	Ministry of Finance or Executive TF	Line Ministries, National Investment Funds Banks
?		

† CE = $\frac{\sum (TC + TB) \text{ discounted @ social rate}}{\sum \text{GHG ERs}}$

verall Economic CBA & Multi Criteria Analys





What can we learn from the CDM experience?

make NAMAs related to LEDS bankable, ER assets need to be clearly ring fenced by w, and definitive off-takers identified for them. If legal and/or regulatory frameworks e un- or under- developed, private financiers will mainly stay on the sidelines.

NAMAs are viewed as a sovereign prerogative, then public financing mechanisms k being seen as main $ resource. Leverage and scaling up will be challenged. Thus, entification and approval processes need to embrace private actors from the get-go.

evising PPP structures, tenders and concessions incorporating GHG reductions into erformance or payment criteria is fairly straight forward. BUT, this will likely fail to rness sustainable sectoral "transformation" or create incentives to drive massive pital inflows into mitigation.

What can we learn from the CDM experience?

Unilateral Financing as Norm

Few CDM projects developed by foreign developers (less than 5%)

Very little foreign direct investment (FDI) linked to CDM

- UNFCCC estimate: $21.5 - 43 billion CDM-specific investment over lifetime
- UNEP DTU pipeline data suggest <5% share of total investment requirements

Limited cash flow from CERs

- Value of issued CERs: 1,270,000,000 @ 10 USD ≈ USD 12.7 billion
  ≈ 2 billion /year)
- CDM experience shows that only a very marginal share of project financing can be clearly linked to emission reduction value drivers.

Expectations diminishing that GCF will be primary vehicle for deploying private climate capital

Don't expect FDI driven mitigation or massive external finance, but rather plan for its involvement.

Building on CDM Strengths

The CDM was...

both a *policy instrument and a marketplace* for climate mitigation operating under both international law and domestic political-legal frameworks. These are still relevant and shall continue until at least 2020.

a bridge-builder between:

- Private and State actors (explicit recognition of need to drive capital)
- Developing and developed countries
- Diverse interests: economic, environmental, social

a catalyst for new institutions and governance frameworks :

- early identification of barriers and enablers
- transparency in decision making
- coordination/buy-in of a large number of diverse stakeholders
- empowerment and ownership of process

LEDS and related NAMAs should build upon CDM's strengths to mobilize private sector, create public-private partnerships that bridge agendas, and inspire innovative approaches.

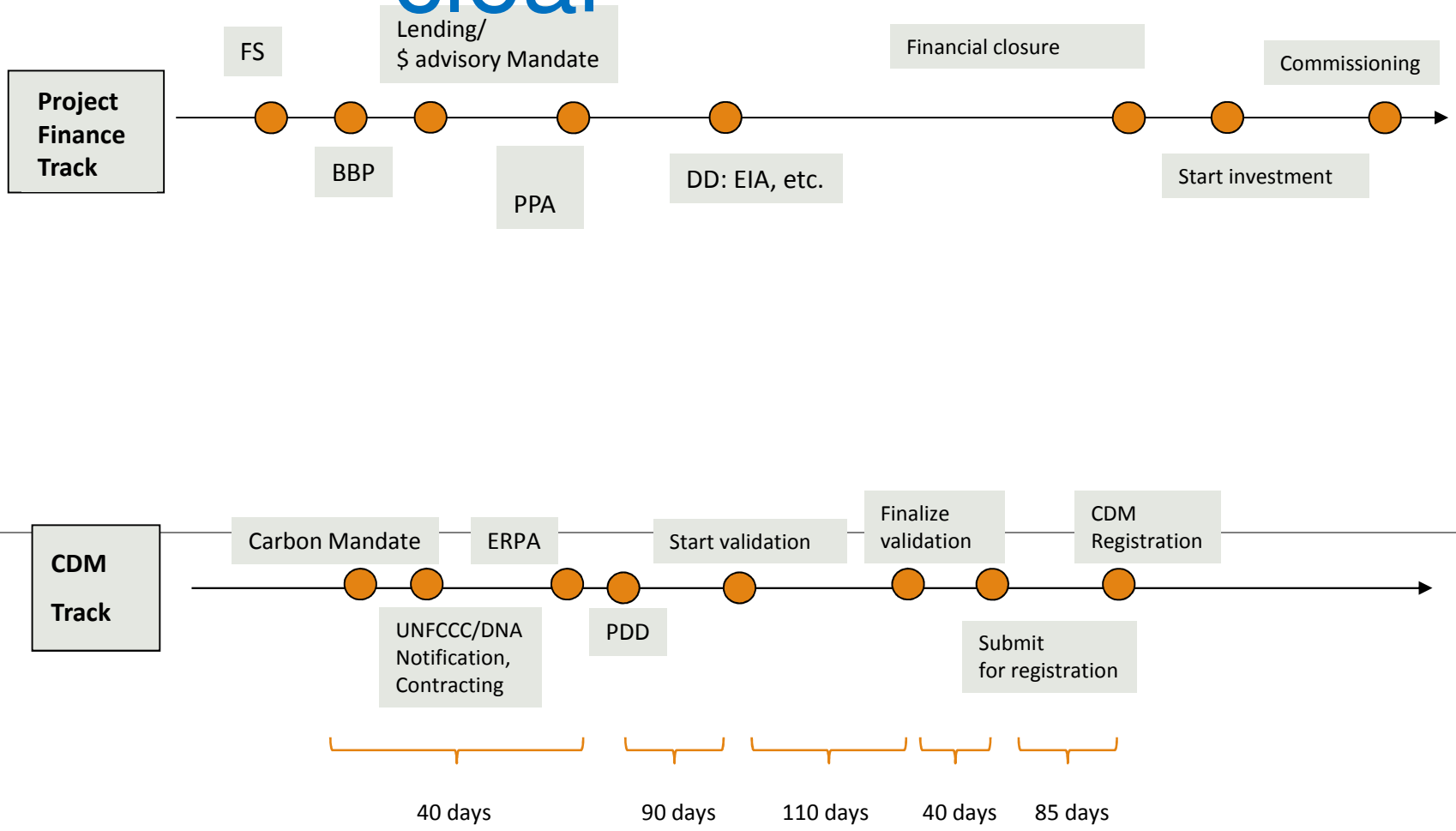
Methodologies & Standards

Importance of clear yet flexible approaches to:

- eligibility criteria that define carbon "asset" quality
- system boundaries for projects and sectoral activities;
- baselines and emission factors
- monitoring, reporting and verification
- accountability over use climate finds linked to results

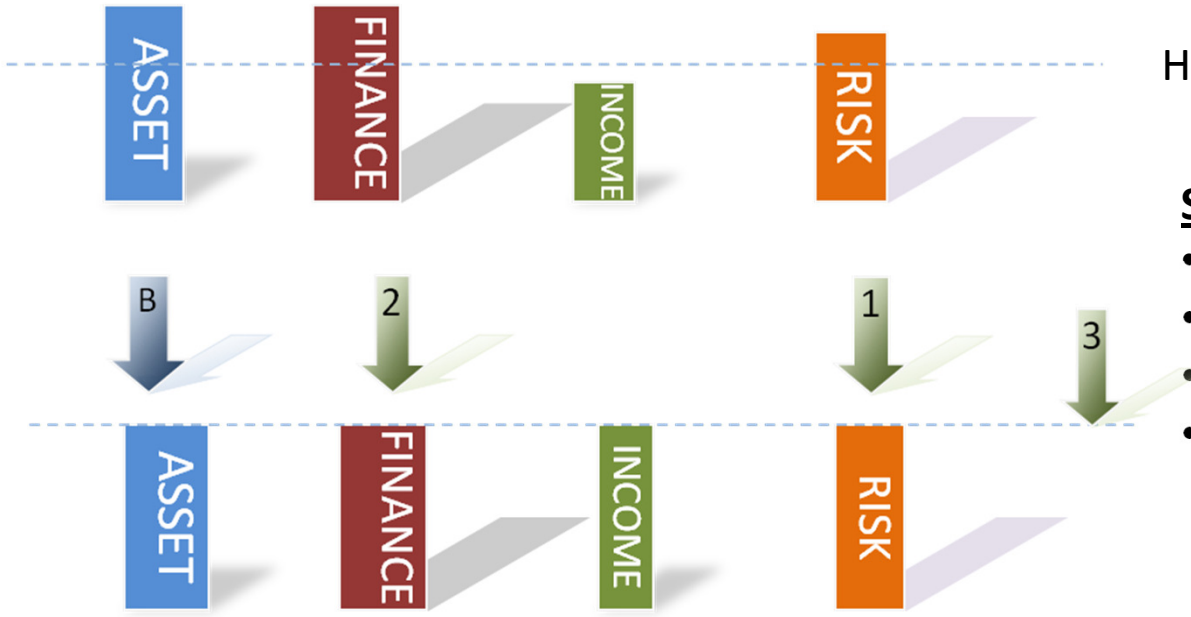
Standardization, benchmarks, and simplification tools are key building blocks for climate financing. Although they front-load transaction costs, access and scale will be enhanced by both reducing time to market and investment uncertainties.

Overlap of cycles should be clear



Financial Structuring of NAMAs

balancing exercise between four elements: the cost of the asset, the cost of the finance,
e size of the income, and the composition of the risk



Hurdle rate

Support or pro

- Asset
- Guarantee
- Finance
- Cash Flow

risk cover

cheaper finance

lower income req

if not enough,

asset support

Financial Structuring

Doesn't exist in a vacuum. Not a separate "activity component" requiring source of financing.

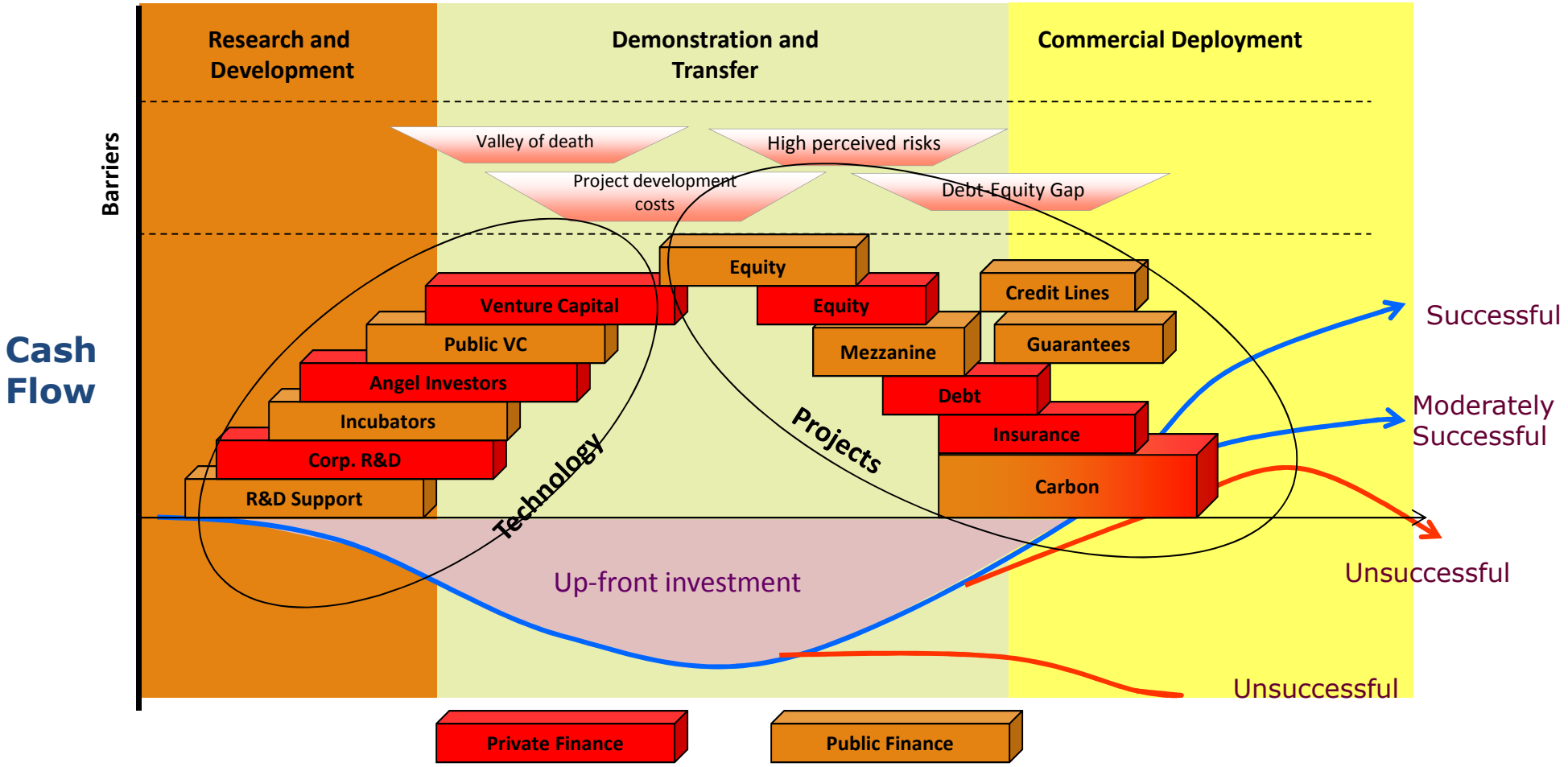
More a question of context than tools. The need for "innovative instruments" for NAMAs is questionable. Rather, find innovative ways of splitting the bill using existing structures.

There is no “magic formula” that will eliminate any additional cost.

Traditional ODA can assist in implementation, but mainly geared to funding project preparation, technical assistance, capacity building, sector strategy development, and other activities that are not related to physical assets.

UNEP Model for Deploying Clean Technology

Filling Gaps in the Finance Continuum



Leveraging

Total capital requirement of a project

Equity is typically spent on:
- Design & feasibility
- Permits & approvals, EIA
- PIN, PDD, registration
- Legal & financing costs
- Initial project construction

Gearing or leverage:
If project is 70% debt funded, it has “70% leverage”

Debt is typically spent on:
- Construction costs
- Re-financing equity once the project is at a less risky stage

Leveraging is all about "who goes first"

The riskier a project, the more equity is required compared to debt

The earlier stage or risker a project, the more expensive the debt

PFMs: leverage

GUARANTEES

Directed to cost- or supply side interventions Prioritizes high impact, replicable pilots	Directed to demand-side interventions Private sector has clear risk mgt advantage No clear technological winner/solution
Target specific project or project component Barrier removal approach	Back up credible future $ commitments General market conditions in place

UP FRONT FINANCE

Adapted from NORAD Report 08/2

Typical Forms of support

Planning grants/FS and project preparation faciltiies

Pre Investment Capital

Equity

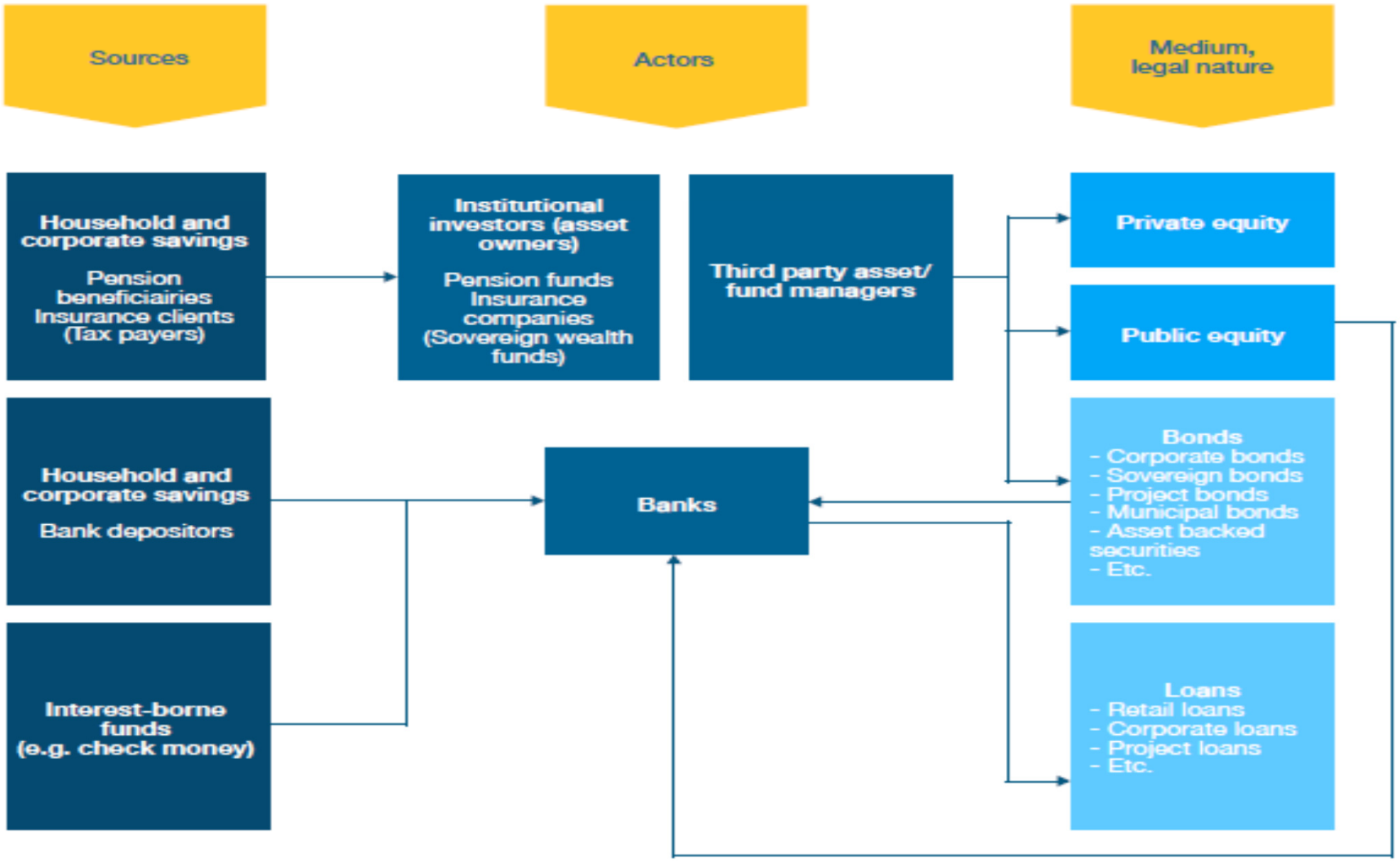
Concessional and Non-concessional Loans

Full and partial risk guarantees

Muni and Green Bonds

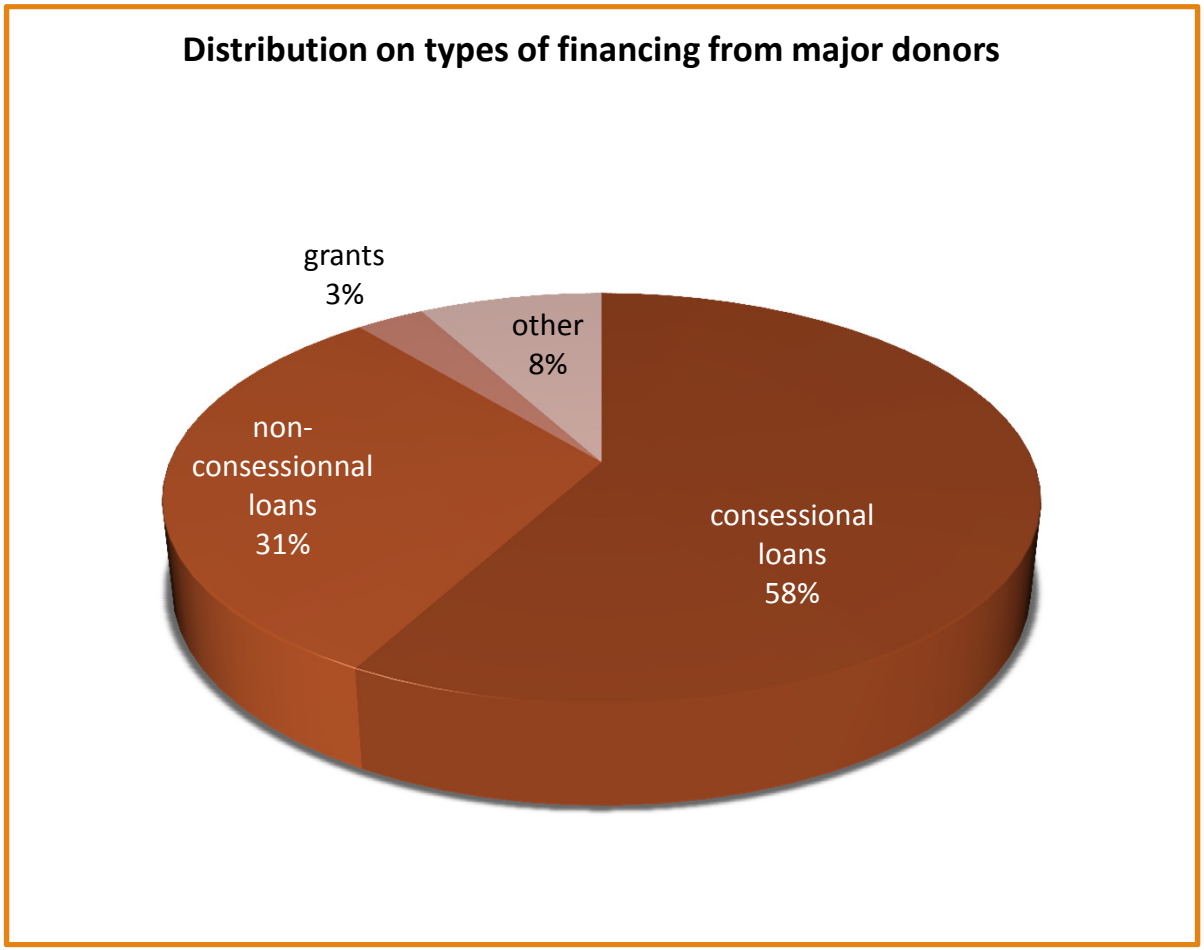
Trade Finance

Infra project finance


Sources
Actors
Medium, legal nature
Household and corporate savings
Pension beneficiairies
Insurance clients
(Tax payers)
Institutional investors (asset owners)
Pension funds
Insurance companies
(Sovereign wealth funds)
Third party asset/ fund managers
Private equity
Public equity
Household and corporate savings
Bank depositors
Banks
Bonds
- Corporate bonds
- Sovereign bonds
- Project bonds
- Municipal bonds
- Asset backed securities
- Etc.
Interest-borne funds
(e.g. check money)
Loans
- Retail loans
- Corporate loans
- Project loans
- Etc.

Source:

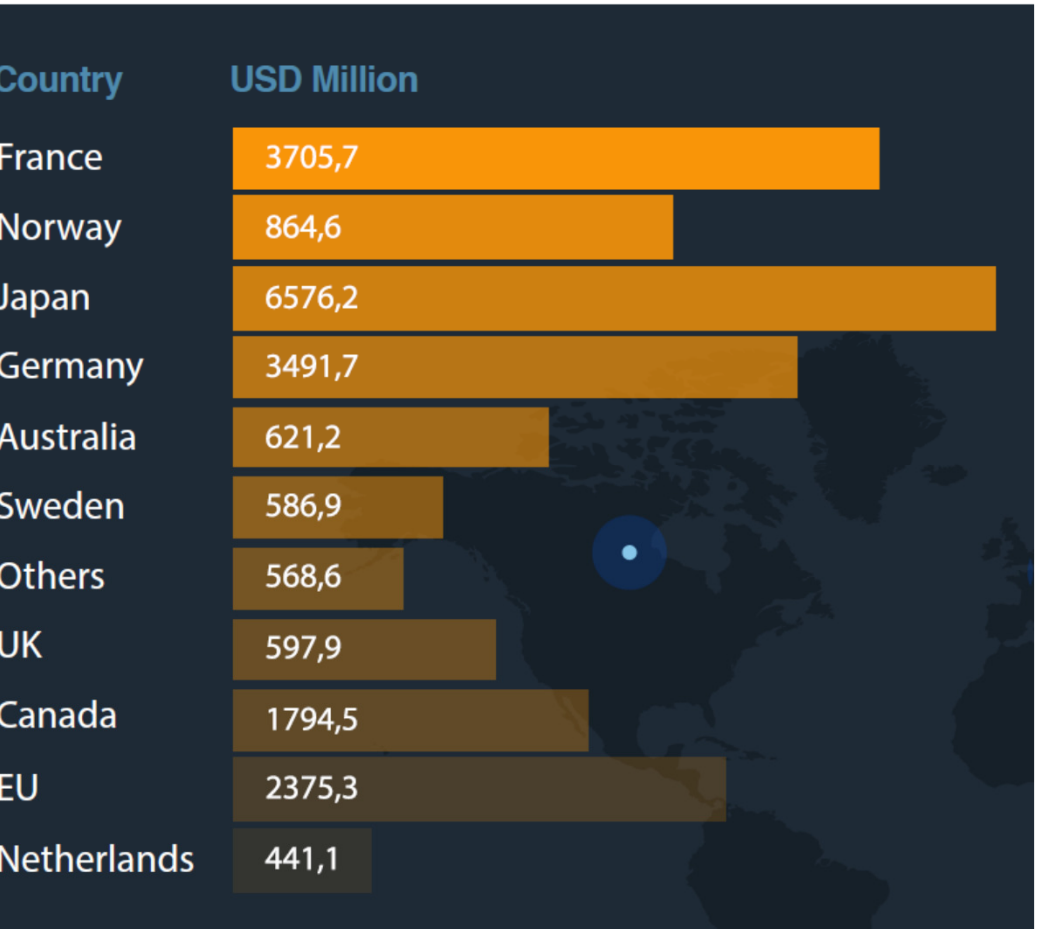
International Financial Sources



Main types of international financial instruments:

- concessional loans,
- non-concessional loans
- guarantees
- grants
- hybrid financing and bridge financing (revolving funds)

Bilateral Climate Finance: Main Players



Total

21623* USD million

** The OECD-DAC statistics do not report US bilateral funding*

Source: OECD 2

Source: UNDP "A Snapshot on Climate Finance, 2014

Sources of Financing

- ✓National Treasuries
- ✓Project Development Facilities (Infra and Climate Specific, e.g. ACAD, CTCN)
- ✓ODA and UN via TFs
- ✓Multilateral Banks
- ✓Equity Funds and Finds of Funds like GEREF (EIB)
- ✓GEF, Adaptation Fund, Special CC Fund, and WB CIF
- ✓GCF
- ✓DFIs (e.g. OPIC, KFW, DEG, FMO, and Proparco)
- ✓NAMA Facilities (DE/UK/DK, BE)
- ✓IFC
- ✓Climate Funds (e.g. Interact Climate Change Fund – debt and mezzanine financing)
- ✓National Environment, Climate & Industrial Development Funds (e.g., SA Green Fund, FONERWA, Senegal, Kenya)
- ✓Carbon Finance (including VER market)

Examples

Kenya Geothermal development – Olkaria

Ethiopian Railways

Rwanda – integrating CCF into NEP/SSP and pilot PPP such as Del Agua

Recommendations for Policymakers

1. Accelerate LEDS momentum by shifting national expenditures toward more cost effective actions
2. Encourage national climate finance institutions to conduct reverse auctions to pinpoint best actio Model upon GetFIT, Global Methane Initiative Pilot Facility, Ci-Dev.
3. Assess GHG mitigation and co-benefits as part of routine appraisal of project and programs in budgeting process. Use MTEF vs annual lens.
4. Incorporate GHG reductions into performance or payment criteria when devising PPP structures, tenders and concessions
5. Align & integrate frameworks and investment processes for climate and clean energy.
6. Decentralize NAMA and sectoral LEDS development at line ministry level, however involve budge experts from Ministries of Finance early in the project identification processes.

Tips for Making NAMAs & LEDS more bankable

1. **Scope out NAMAs and LEDS actions like any other major infrastructure investment – planning, staging key**
2. **Frame "story" in terms of additionality, catalytic impact, sustainability, main co-benefits to treasury and PS**
3. **Align financial design with primary non-carbon investment (or core business) drivers**
   - profitability
   - regulation (actual or anticipated)
   - technology development and innovation linked to industrial policy
   - rising fossil fuel prices
   - security of supply
   - energy access
4. **Best if running costs/MRV come out of project revenue streams**
5. **Stakeholders, mainly government, could create incentives to promote secondary investment drivers and meeting international standards for ES+G (e.g. IFC due diligence and equator principles)**
   - prestige
   - brand value/reputational impact as well as CSR
   - local environmental considerations

Good Resources

Climate Finance Options – Funding database

Climate Public Expenditures and Institutional Reviews (methodologies, examples)

UNDP LECB website

Climate Funds Update

Demystifying Private Climate Finance (UNEP FI)