

[www . NAMACADEMY . org](http://www.NAMACADEMY.org)

Target group: Developing country officials

Group size: 10

Course length: 2 weeks

next course: 19th August 2013

Individual coaching possible

Price: 3800 USD

Scholarships available

write us at: namacademy@dtu.dk

NAMA Development Finance

Under preparation/negotiation with donor

Application based (internet)

Long list of eligible countries to be developed

Evaluation criteria: realistic involvement of private finance

Competition for 200,000 USD ((conditional) grant) of dedicated NAMA development incl. interaction with financiers, government officials, private sector developers

Start: September 2013 (?)

FINANCIAL ENGINEERING OF NAMAs

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UNFCCC Regional Workshop on NAMAs

Maseru, April 16-19 2013

Financial engineering does not eliminate any additional cost – but it may bolster the will to entertain it...

Innovative financing is finding
someone new to foot the bill...

~~Marginal abatement COST~~
Marginal abatement REVENUE

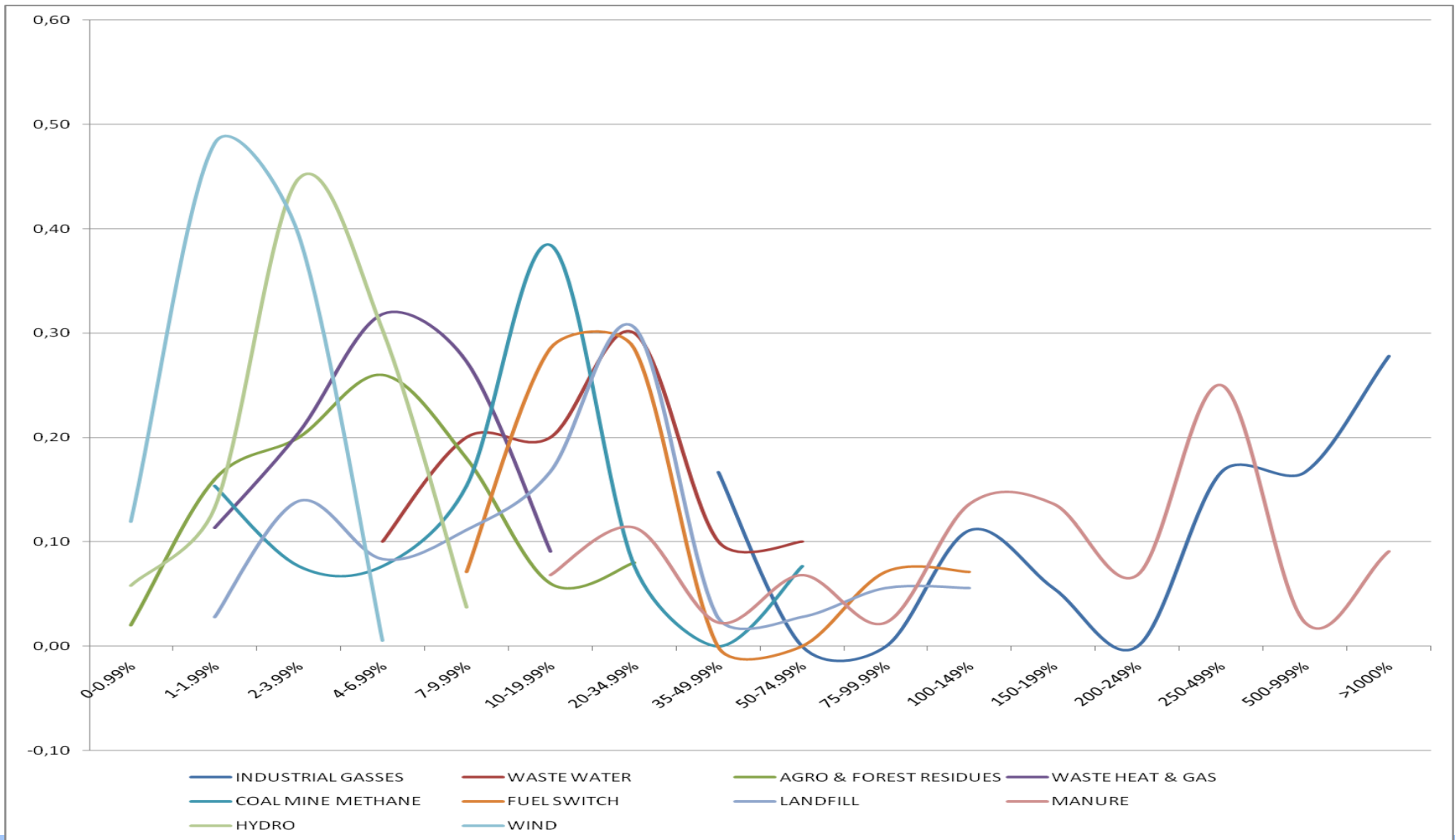
LEVERAGING CLIMATE FINANCE

- Learning the CDM lesson
- Structuring the finance
- A few concluding points

The CDM Experience

- The high hanging fruits are the tastiest
- One size doesn't fit all
- It's a market, live with it
- No going Dutch
- Small is beautiful ...

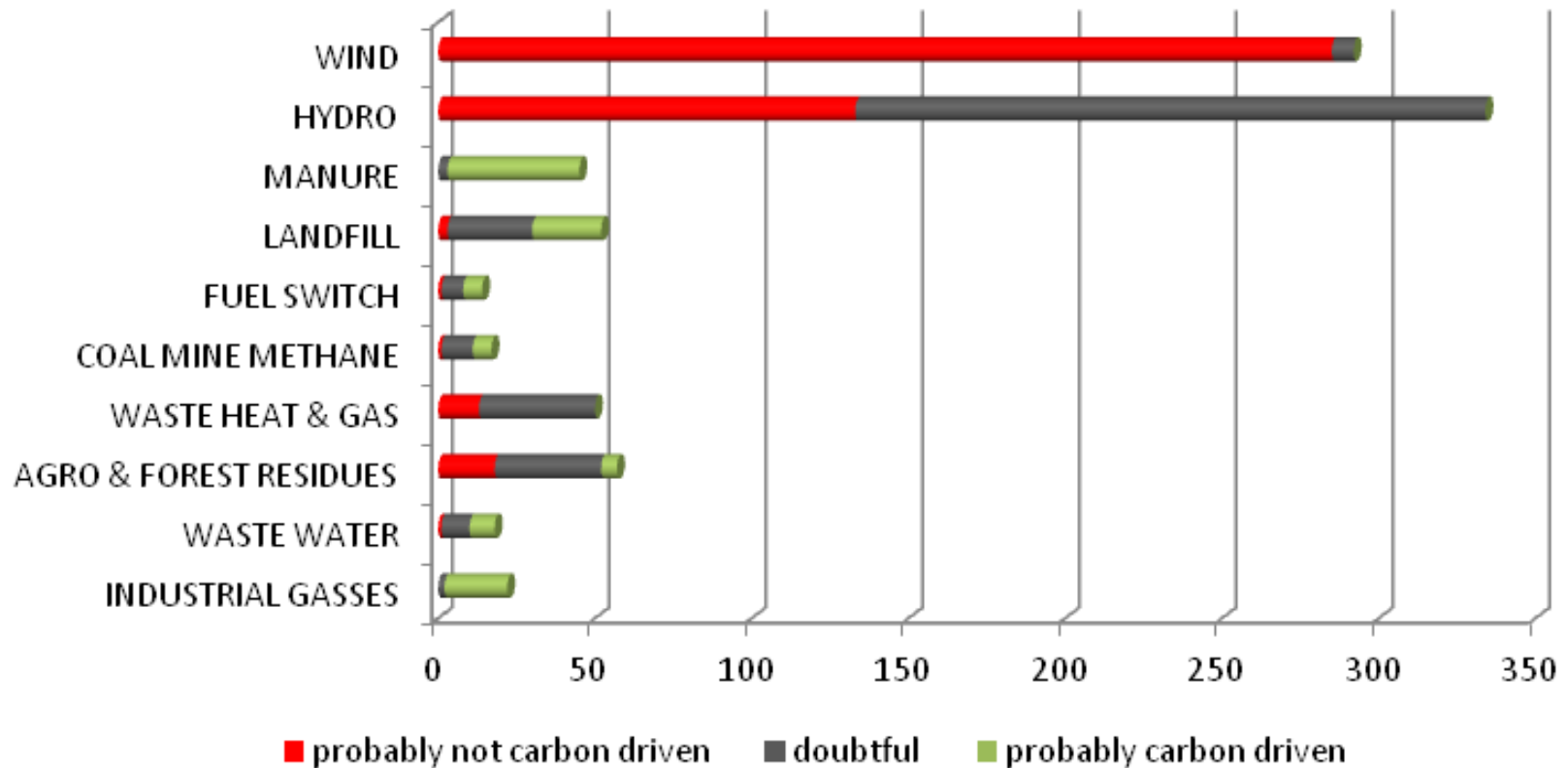
Cash flow contribution – for cost efficient reductions...?



the high hanging fruits are in the bottom of the table ...

Obs.	Technology	lowest value	highest value	median @12\$	median @3\$
22	Industrial gasses	7,96%	1719,03%	304,97%	76,24%
45	Manure	5,44%	1162,88%	169,90%	42,48%
14	Fuel switch	2,60%	579,56%	19,62%	4,91%
18	Waste water	0,16%	71,19%	17,65%	4,41%
52	Landfill	0,90%	162,72%	14,18%	3,55%
17	Coal mine methane	1,12%	58,95%	13,10%	3,28%
50	Waste heat & gas	1,04%	18,04%	5,08%	1,27%
57	Agro & forest residues	0,55%	34,17%	4,30%	1,08%
334	Hydro	0,02%	41,30%	3,50%	0,88%
292	Wind	0,03%	5,24%	1,84%	0,46%

Capital destination in CDM



in search of leveraging...

- **There are many other purposes than climate that motivate financing**
- **Only 1% of financing clearly motivated by emissions reduction**
- **some non-carbon Investment drivers**
 - rising fossil fuel prices
 - security of supply
 - so ein ding ...
 - CSR
 - energy access
 - 'real' environment
 - industrial policy
 - technology development
 - regulation
- **NAMAs should be aligned with such drivers**

choose ONE driver

CDM promotes

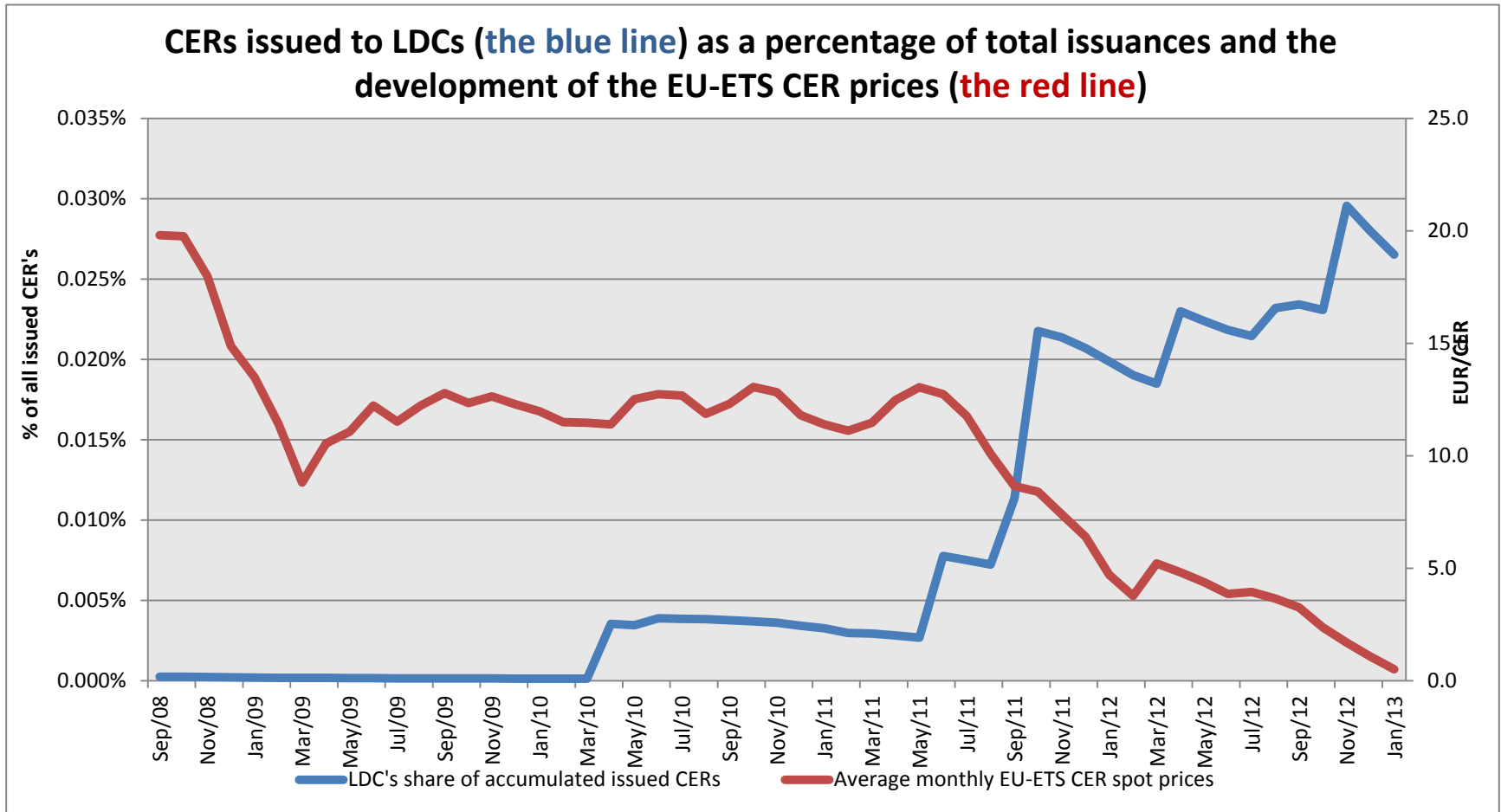
- cost efficiency
- technology transfer
- sustainable development
- FDI
- gender equality

suggestion:

make sure that
NAMAs have ONE
driving purpose



It's a market...



...live with it

- Market actors (normally) understand market conditions
- international regulation is flimsy
- virtual goods are even flimsier
- **the logical lesson:**
 - base NAMAs on national regulation, and/or
 - base NAMAs on physical assets or products

No going Dutch...

- **Very few CDM projects are developed by foreign developers**
 - estimated less than 5%
- **Very little foreign investment in CDM projects**
 - UNFCCC estimate: USD 21.5 to USD 43.0 billion foreign investment in projects over the life of the CDM
 - USD 495 billion recorded investments in the CDM pipeline (8,000 records out of a total of 12,000) – $21.5/495 = <5\%$
- **Very limited cash flow from CERs**
 - Value of issued CERs: 1,270,000,000 @ 10 USD \approx USD 12.7 billion (\approx 2 billion /year)
- **Lesson learnt: Do not expect FDI *driven* mitigation – *plan* for its involvement**

Small is beautiful ...

- ... but it is not profitable
- Many PoAs will never generate CER values corresponding to their CDM development cost (CDM Loan Scheme)
- >25% of all CDM projects expect less than 20,000 CERs annually and may therefore face difficulties financing their CDM costs
- 469 CDM projects have issued CERs (156 less than 20k/y)
- Sector-wide approaches may still aim at developing small scale projects
- **Lesson learnt: Consider transaction costs!**

Structuring NAMA Finance

- The financing of NAMAs does not exist in a vacuum
- It is not a separate activity that requires a separate source of financing
- It *is* fundamentally an exercise in splitting the bill
- There is no magic formula that will eliminate any additional cost
- There are no 'innovative financial sources' – but there may be innovative ways of splitting the bill

	Public	Private
Domestic	1	3
Foreign	2	4

- a common perception that the climate challenge cannot be met only by public sector financing initiatives, but must rely on significant contributions from the private sector

Searching for financing partners

- Innovative financing models, if such indeed exist, would be yet undiscovered ways in which the two sectors, public and private, interact (**they interact intensively in a multitude of models already**)
- the innovative capacity will not come from a financial sector that globally is being punished for its overly innovative financing arrangements
- innovative capacity must be sourced rather in public-*public* partnerships than in partnerships that require alternative financing principles of the financial sector – or alternative business models of private business

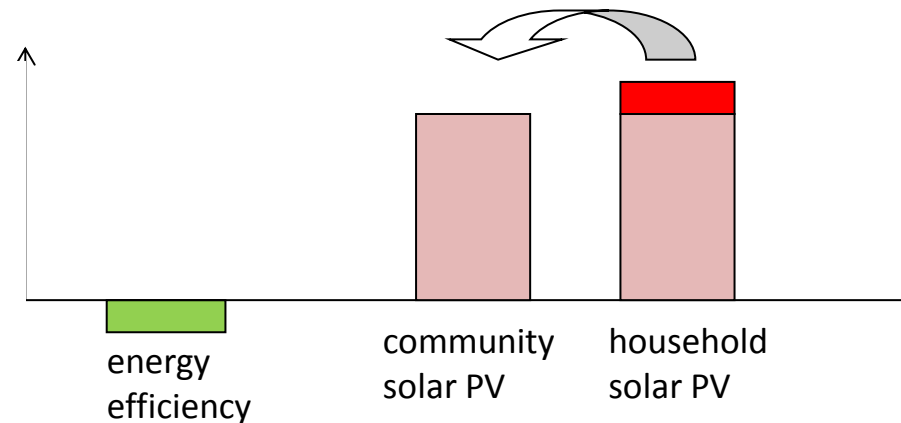
The NAMA label will not make up for shortfalls in appropriateness

- There is no reason for the private sector to invest in emissions reduction, while there are good reasons to invest in things that have emissions reduction co-benefits **as long as it is profitable – and is in line with core business**
- To bring the private sector on board, therefore, is easy!
- **NAMAs is a concept the longevity of which is uncertain**
 - Mitchell Feierstein, chief executive of Glacier Environmental Funds: 'the CDM has long been overshadowed by bigger opportunities for green investors
 - Investors are not leaving the market. Investments continue, but not driven by the CDM

Cost *inefficiency* is not *inappropriate*

- Even though cost efficiency was - and is - not the prime motivator, the projects are not reckless reduction adventures. What is needed is not a revision of the investment strategies; rather a revision of the perception of high-hanging fruits – no one has ever invested on the basis of a MAC curve

A shift from high to lower cost of abatement indicated by the arrow reduces costs, but remains far above the (negative) cost of energy efficiency initiatives



- The chances to successfully engineer the financing around a NAMA is not (necessarily) influenced by high costs of abatement
 - wind power and solar energy thrive; energy efficiency does not
 - core business

The order of leveraging

- Assuming that the target is private sector financial engagement
- Only few still expect the Green Climate Fund to become a large concentration of capital for the deployment in investment objects
- The 'who goes first' dilemma

	Public	Private
Domestic	1	3
Foreign	2	4

- instruments like sector-specific reallocation of national budget, cannibalizing other line ministries' budgets, cross-subsidization (like health and environment) – and regulation (and enforcement)
- bridge financing and timing
 - e.g simultaneous diesel subsidies versus solar PV subsidies, or
 - e.g. delayed health benefits from managing landfills

The order of leveraging

- Donors engage in different ways as well
 - Partly in implementation, but mostly in preparation, technical assistance, capacity building, sector strategies and other activities that are not related to physical assets
- The physical assets are commonly financed by concessional loans from the development banks (not bilateral donor grants) if the borrower is a government – or commercial loans to private sector investors

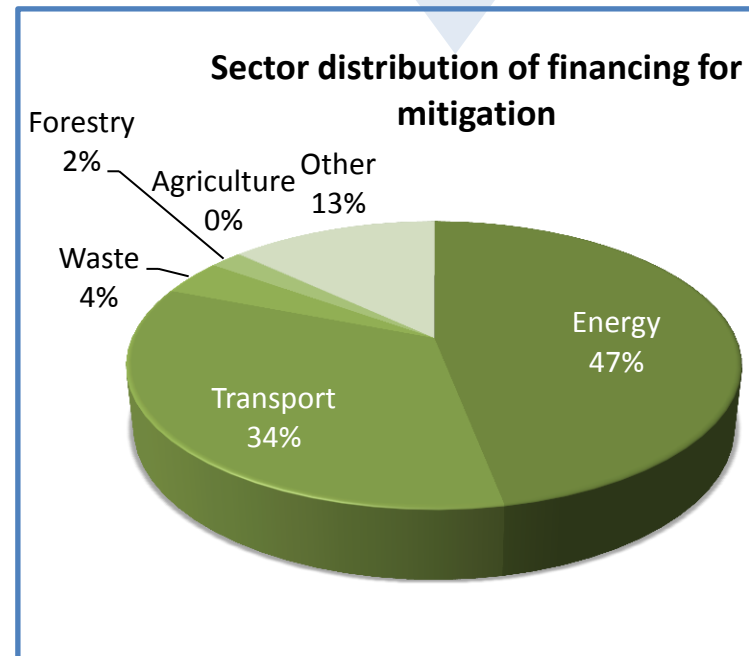
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- To maximize leveraging, public-*public* partnerships precede private sectors investment as (national) private sector investment has little leveraging power over the foreign public donor
- But the two sources of funding, national and donors, should be deployed where their special characteristics are most valuable

public-*public* evaluation

- 'NAMA' is a label added to activities that otherwise mostly are traditional objects of development finance
- A few basic criteria employed by practically all institutions when they evaluate programmes for engagement are:

1. Relevance to objectives of the financing source
2. Total funding sought
3. Amount or % of co-financing
4. Estimated GHG reductions
5. Cost of achieving the reductions (\$/tCO₂e)
6. Economic and financial viability
7. Experience and capabilities of proposing entity
8. Programme management plan
9. Implementation plan
10. Evaluation plan



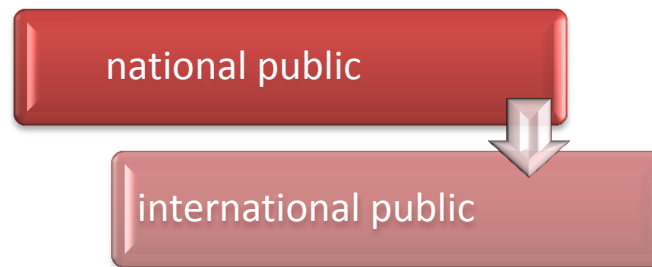
The order of leveraging

- The public-*public* partnership may have as its prime purpose to maximize private financial engagement – or may not
- Public-Private Partnerships (PPP) has a lot in common with Build-Own-Operate-Transfer (BOT) - the 1990s experience



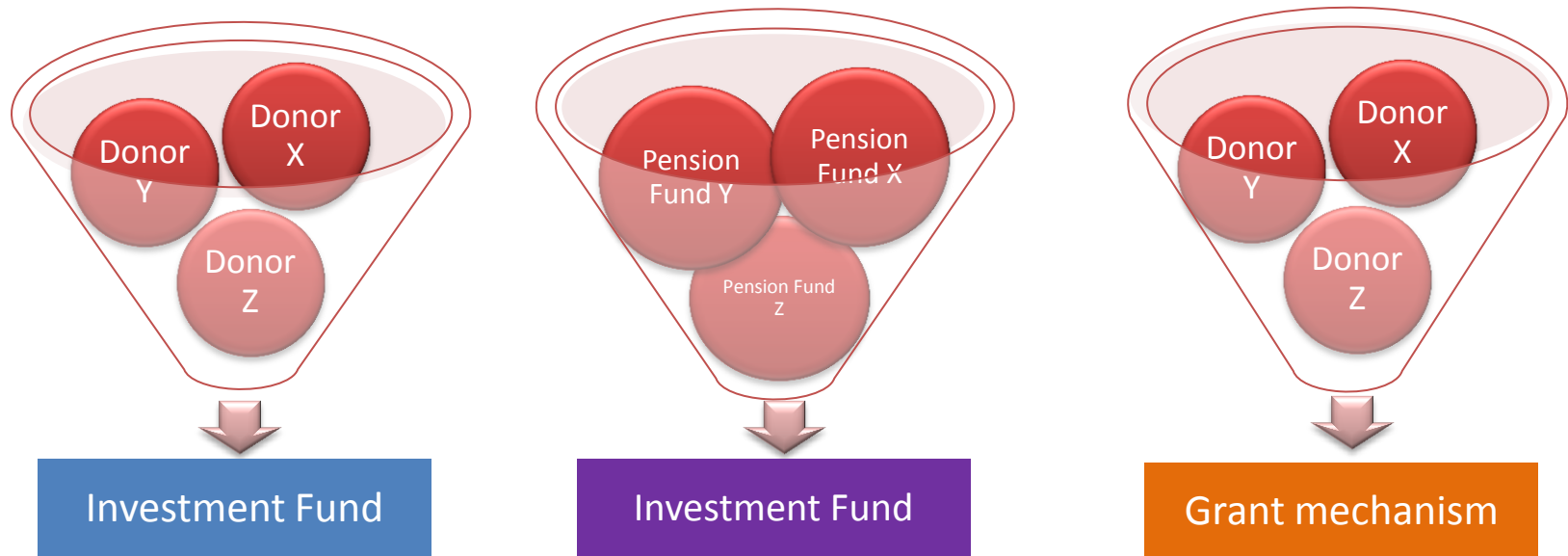
The order of leveraging

- Many host countries in the 1990s were not embracing the private sector ownership of strategic national assets



- Private sector involvement may therefore have to involve other models of ownership, for instance ROT – rehabilitate, operate, transfer
- Or involving 'hybrid' financing institutions →

The 'hybrid' financiers

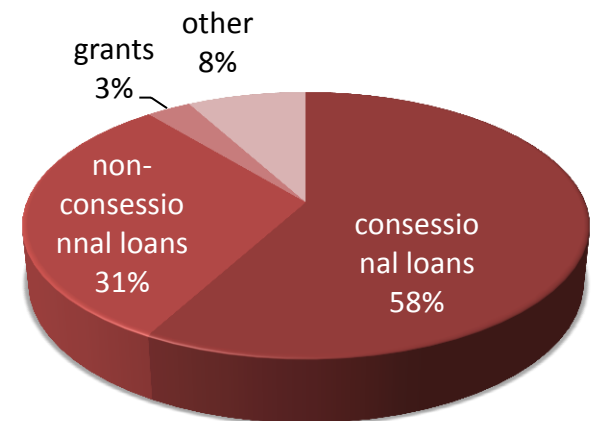


- ODI estimates that in 2009 the main hybrid Development Finance Institutions invested around \$33 billion in the private sector (loans, guarantees and equity, the largest being IFC and EBRD)
- As these always act as minority stakeholders, significant private investment has been leveraged

'The Private Sector is easy...'

- ... in the sense that we know what it wants
 - business opportunities aligned with core business
 - a 'reasonable' risk/return ratio – marginal abatement revenues
- **The purpose of public-public sector intervention is to create such conditions**
- **Unless the private sector is regulated 'against' it has the choice *not* to invest**
- national instruments like sector-specific reallocation of national budget, cannibalizing other line ministries' budgets, cross-subsidization (like health and environment) – and regulation
- international instruments like concessional loans, **guaranties**, grants, hybrid financing and bridge financing (revolving funds)

Distribution on types of financing from major donors



The risk – and the guarantees ...

- The Climate Policy Initiative (CPI) launched a series of risk gap analyses in January 2013 stating that "currently, gaps in risk coverage hinder renewable energy investments. Risk — whether real or perceived — is in fact the single most important factor preventing renewable energy projects from finding financial investors, or raising the returns that these investors demand. It is also one thing that policymakers can cause, control, alleviate, or help mitigate."
- Projects in different sectors have different risk profiles:
 - Normally, pure privatization of existing infrastructure with a known history and position in the market – e.g. ROT – have a more easily predictable risk profile and are therefore easier to finance than greenfield projects
 - It may also be easier to attract commercial debt for energy supply projects than for road projects, because traffic forecasting is more difficult than predictions of power consumption

The risk – and the guarantees ...

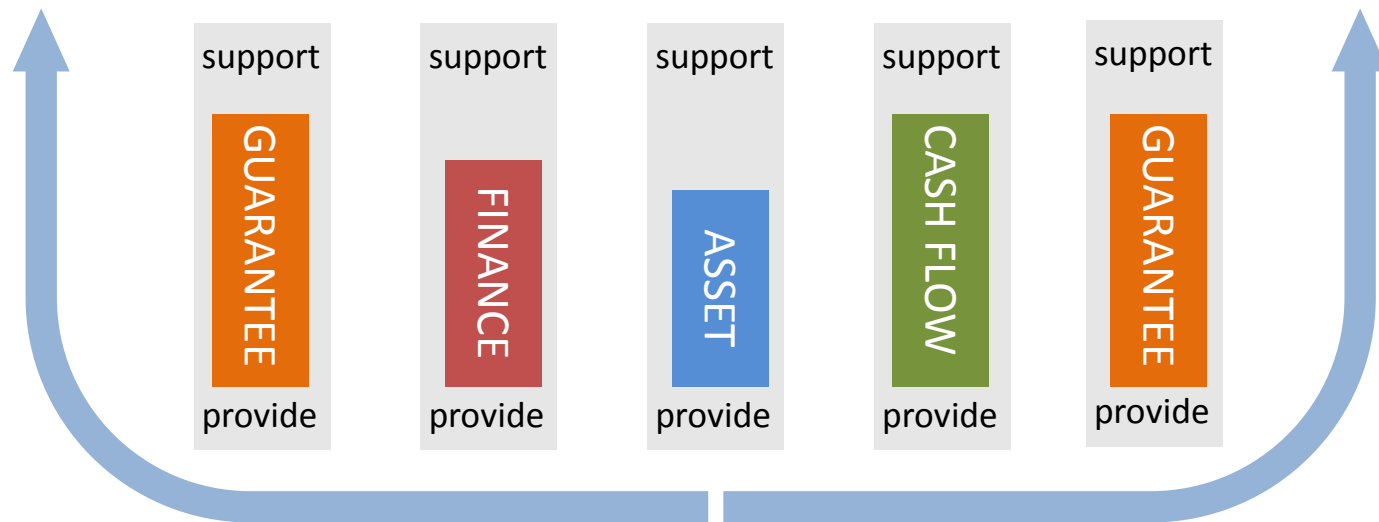
- Pure privatization projects do not immediately resemble NAMA options, but they can easily be transformed into NAMAs by adding to the list of performance requirements also requirements related to emissions
 - Emissions criteria can become the object of the bidding for a concession for the provision of a public service, e.g. a fixed fee concession awarded to the bidder offering the largest emissions reduction over a given period
- For the public sector such privatization is certainly a political issue
- For the private sector, however, it is a question of return on investment (RoI) – or return on equity (RoE) – on a core business transaction
- The bidder for the concession will look at the fixed fee from the concession compared to the price of capital. The price of capital consists of the price on equity – which is his benchmark established by the return on other investments – and the price on debt
- And both are intricately linked to risk

The risk – and the guarantees ...

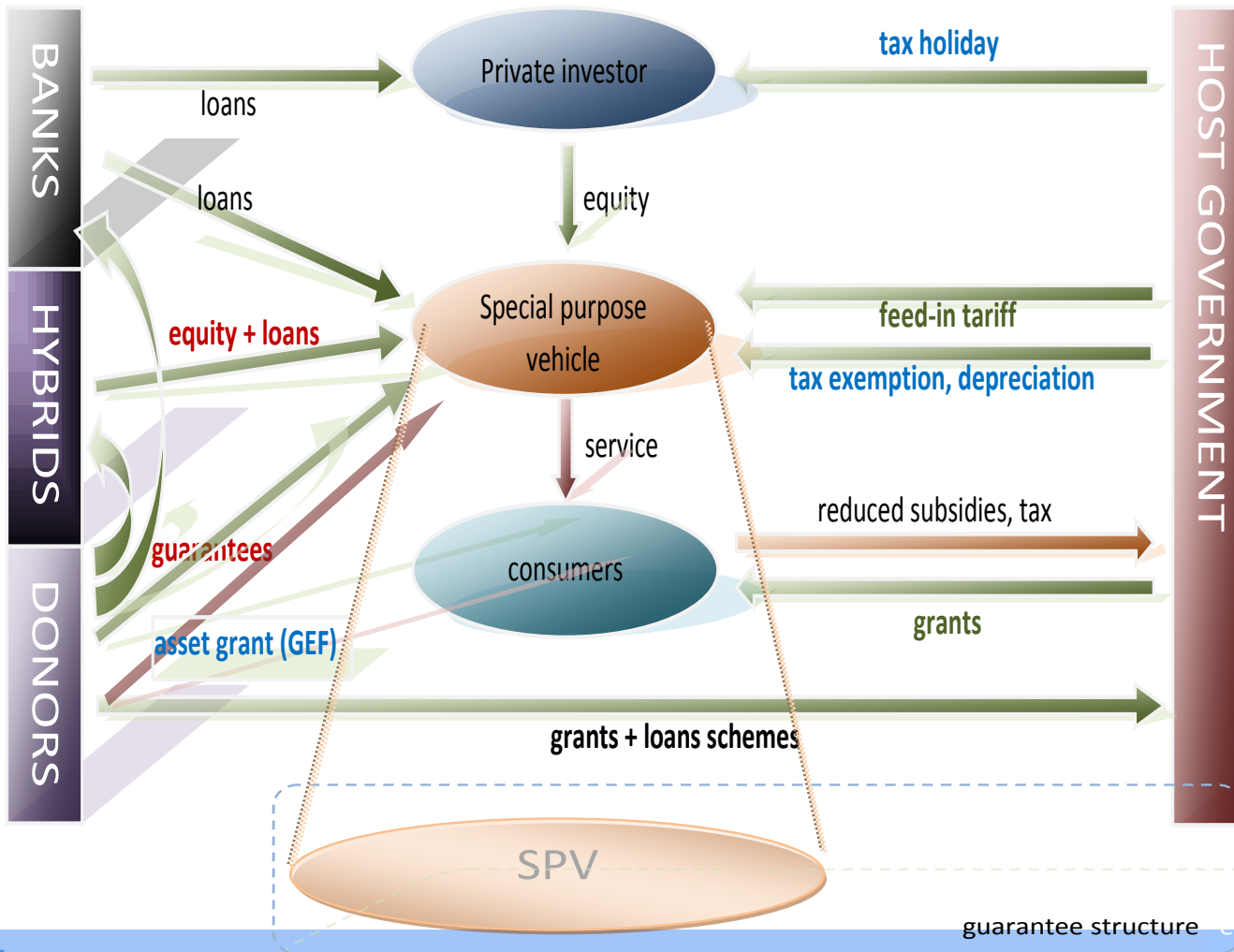
- CPI believes that 'several new and proposed policy instruments designed to address the gaps in risk cover are a step in the right direction' – but that it is not sufficient: 'New innovative risk mitigation instruments are needed to bridge the gap between supply and demand for risk coverage.'

How to financially engineer a NAMA?

- The support falls in four streams: Support for the asset (blue), support for the service (green), support for the finance (red) and support for the guarantee
- Support or provide

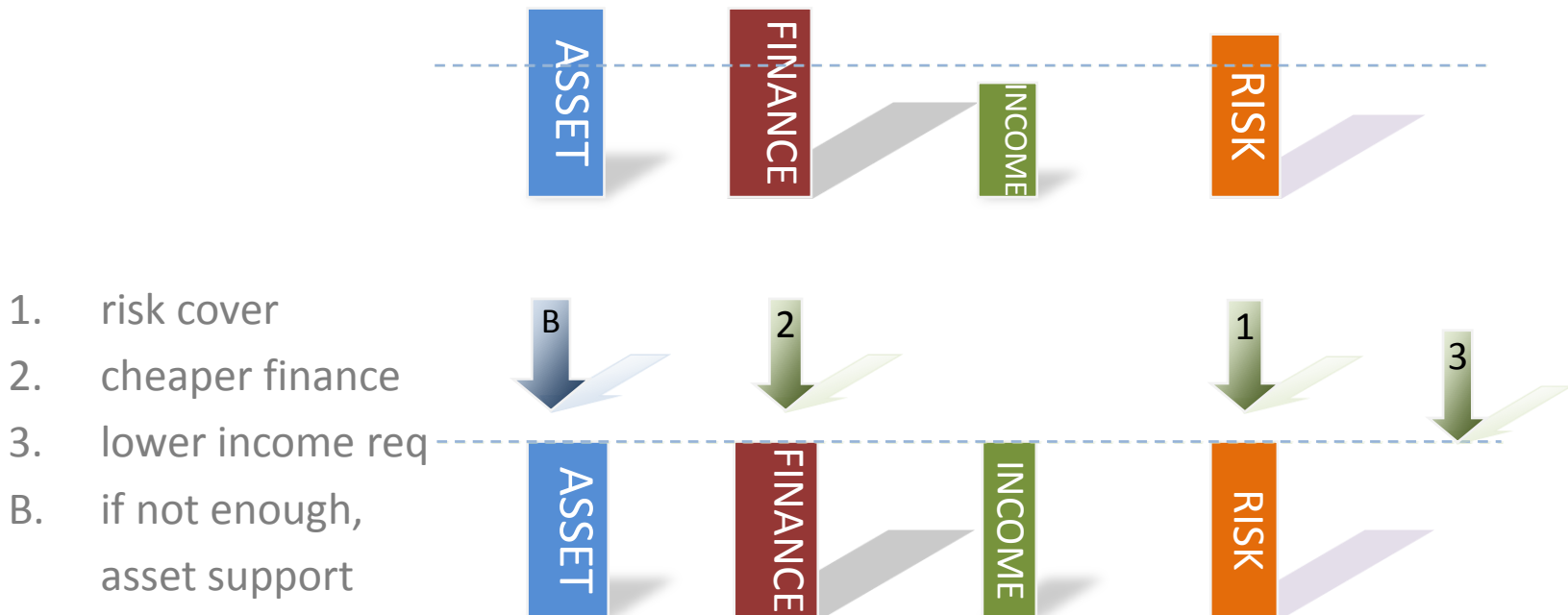


How to financially engineer a NAMA?



How to financially engineer a NAMA?

- Another way of viewing it is a balancing exercise that looks at four financing elements: the cost of the asset, the cost of the finance, the size of the income and the composition of the risk



A step-wise approach

- **Step 1: define political constraints**
- **Step 2: identify the investment value chain**
- **Step 3: identify financing options at national level**
- **Step 4: consider FDI barriers and options to address them**
- **Step 5: enter dialogue with international donors AND hybrids**
- **Step 6: devise national programmes**
- **Step 7: close the financing**
-

How to financially engineer a NAMA?

- Financing of NAMAs is mostly about employing known models in new contexts
- The higher the leveraging requirement, the higher up in the financing value chain you'll have to go
- Leveraging is about involving the private sector – and if so it has to adopt private financing principles
- The lessons from CDM should be employed when devising models to attract private investors

Thank You!

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