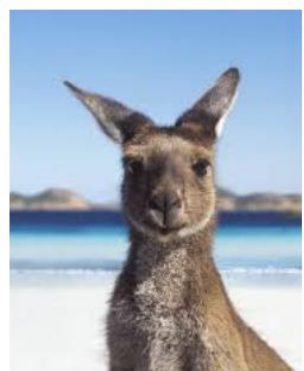


Approaches to REDD+ Nesting: Lessons Learned from Country Experiences



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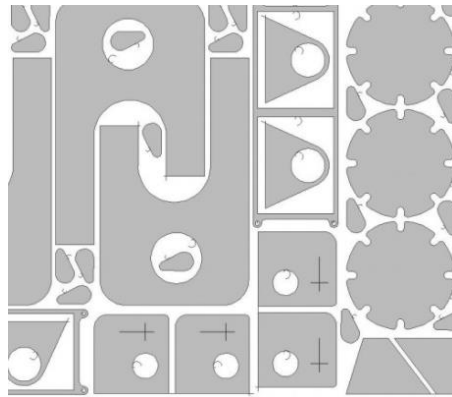
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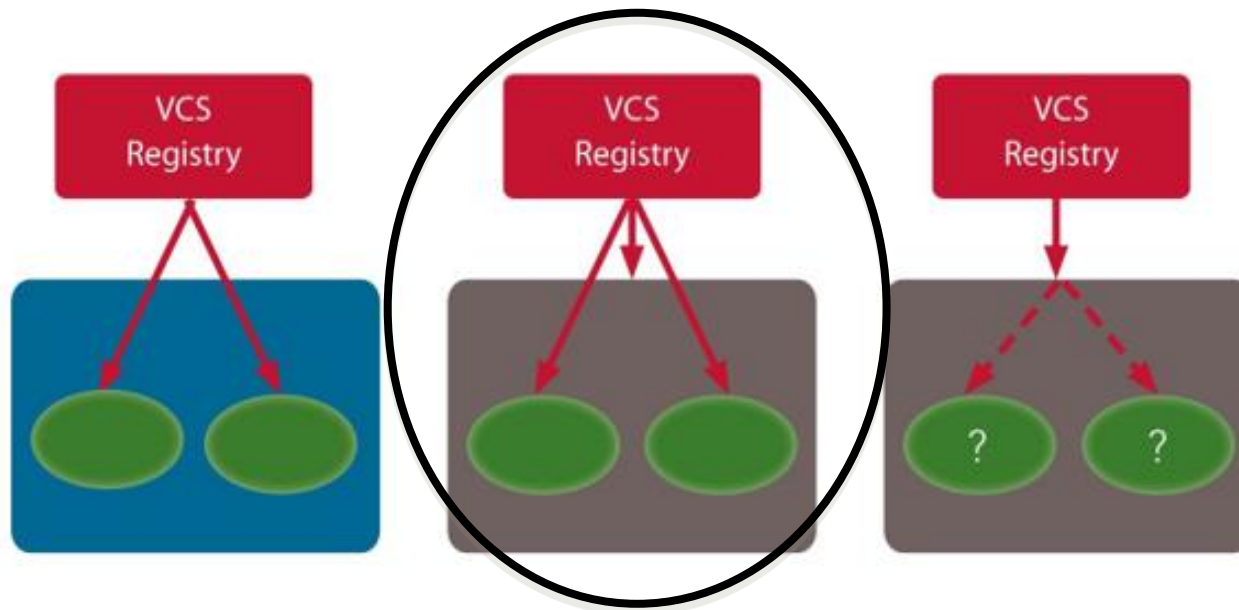
What is nesting?

(how and why do we re-define it in the report)



Classic “nesting” is where *carbon accounting* is occurring at multiple levels...

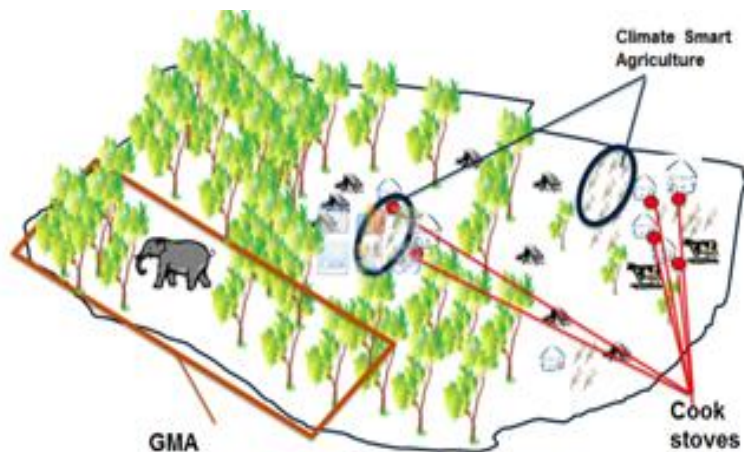
The Verified Carbon Standard conceptualized nesting based on carbon crediting scenarios. Most people have focused consideration of “nesting” on **how projects and jurisdictions can both generate and issue emission reduction units**.



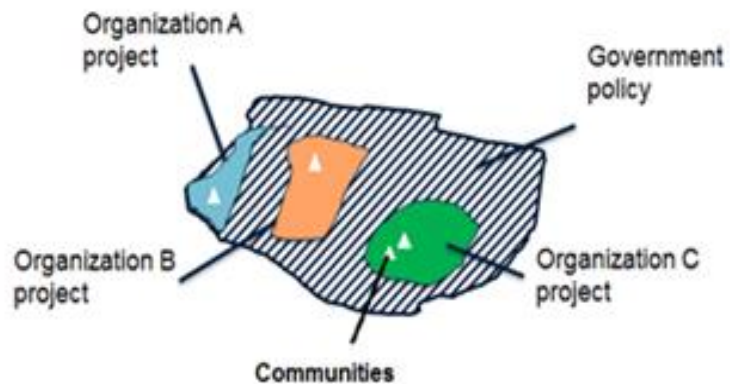
...however our paper considers 'nesting' as different structures that **catalyze actions at multiple levels** to achieve scale.

The objective is for countries to figure out how best to catalyze different activities and engage different actors across a landscape.

In most countries, drivers vary requiring multiple types of activities...



...as well as the participation of multiple stakeholders



Why should countries consider nesting?

There are multiple reasons to consider nesting, including to:

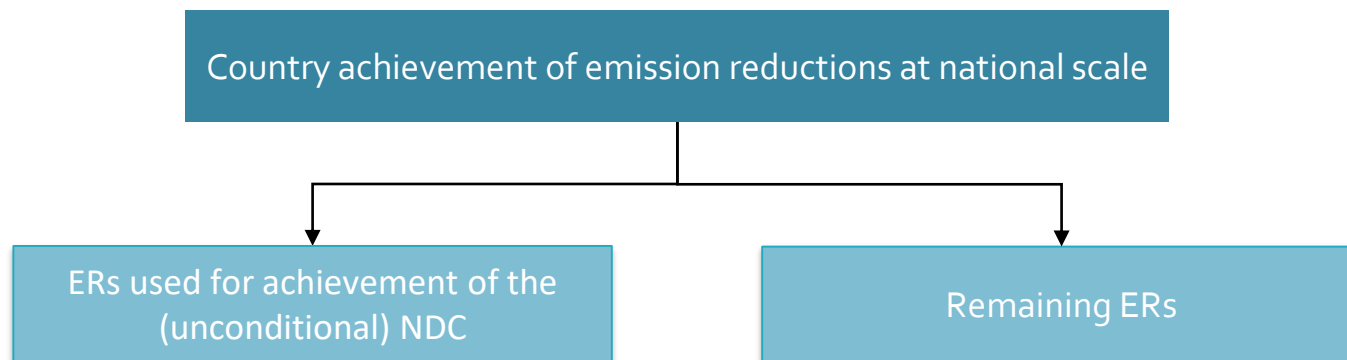
- Extend the reach of a government by engaging the capacity and on-the-ground presence of multiple players to contribute to jurisdictional performance... thus, to achieve scale
- Engage private sector actors, including land holders
- Reduce the cost of mitigation actions
- Generate finance for mitigation activities
- Implement and track the impact of policies on domestic mitigation

The design of a nested system will depend on a country's priority objectives — what we've learned is that **there is no "one size fits all" model of nesting.**

Starting from the top...

The Paris Agreement and Nationally Determined Contributions (NDCs)...

All countries are now obligated to contribute to global mitigation. Such commitments fundamentally change the picture for (developing) countries – obligating all countries to reserve a portion of emission reductions (ERs) generated towards achievement of an NDC.



Key decisions in building a nested system

Four fundamental design decisions

#1 - Ex-ante finance or ex-post rewards?

Are local actions better catalyzed through ex-ante finance (to generate future ERs) or through ex-post rewards (for past performance)?

#2 - If ex-post rewards: Allocate finance or ERs?

If a country generates ERs and wishes to reward projects or subnational units, is it better to provide finance or 'pass through' a portion of ERs?

#3 - National versus local effort?

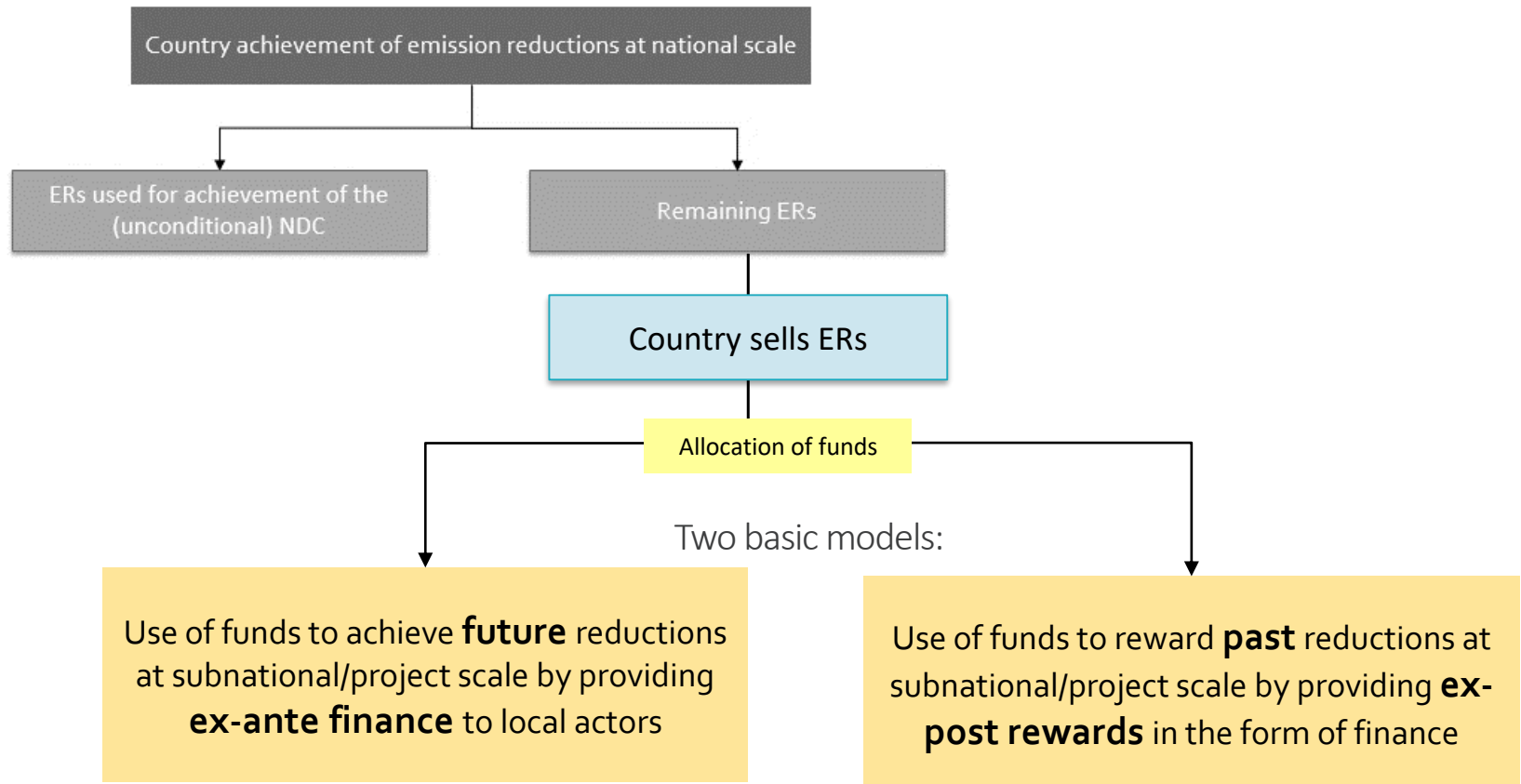
What are the relative contributions of national vs. local actions?

#4 - Stand alone projects?

Are there instances where it is beneficial to allow smaller-scale units the ability to generate ERs separately?

#1 – Ex-ante finance or ex-post rewards?

Are local actions better catalyzed through ex-ante finance (to generate **future** ERs) or through ex-post rewards (for **past** performance)?



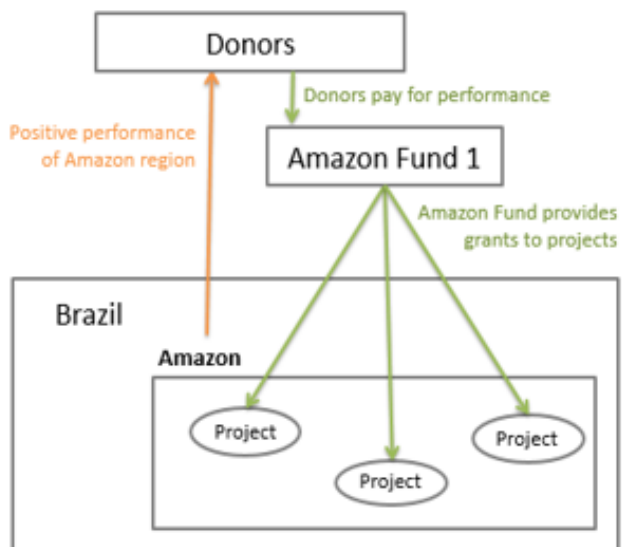
Example: Amazon Fund

The Brazilian Government has shifted its use of results-based funds received for Amazon-wide performance from...

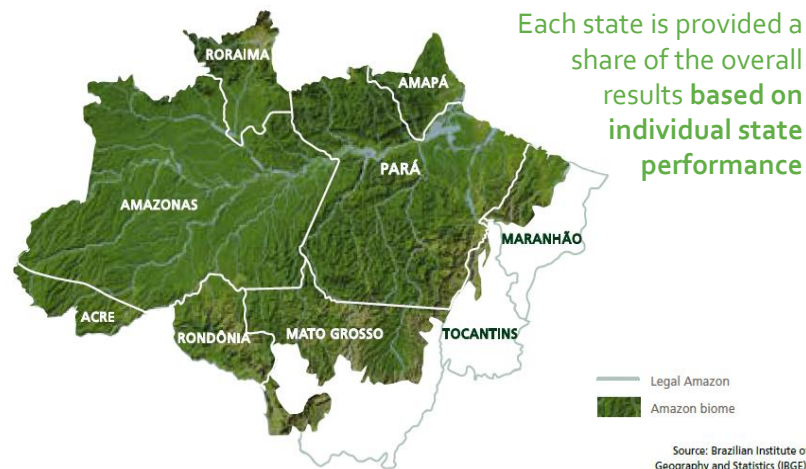
...an ex-ante finance system (for projects)...

...to an ex-post reward based system (for states)

The Amazon Fund (original)



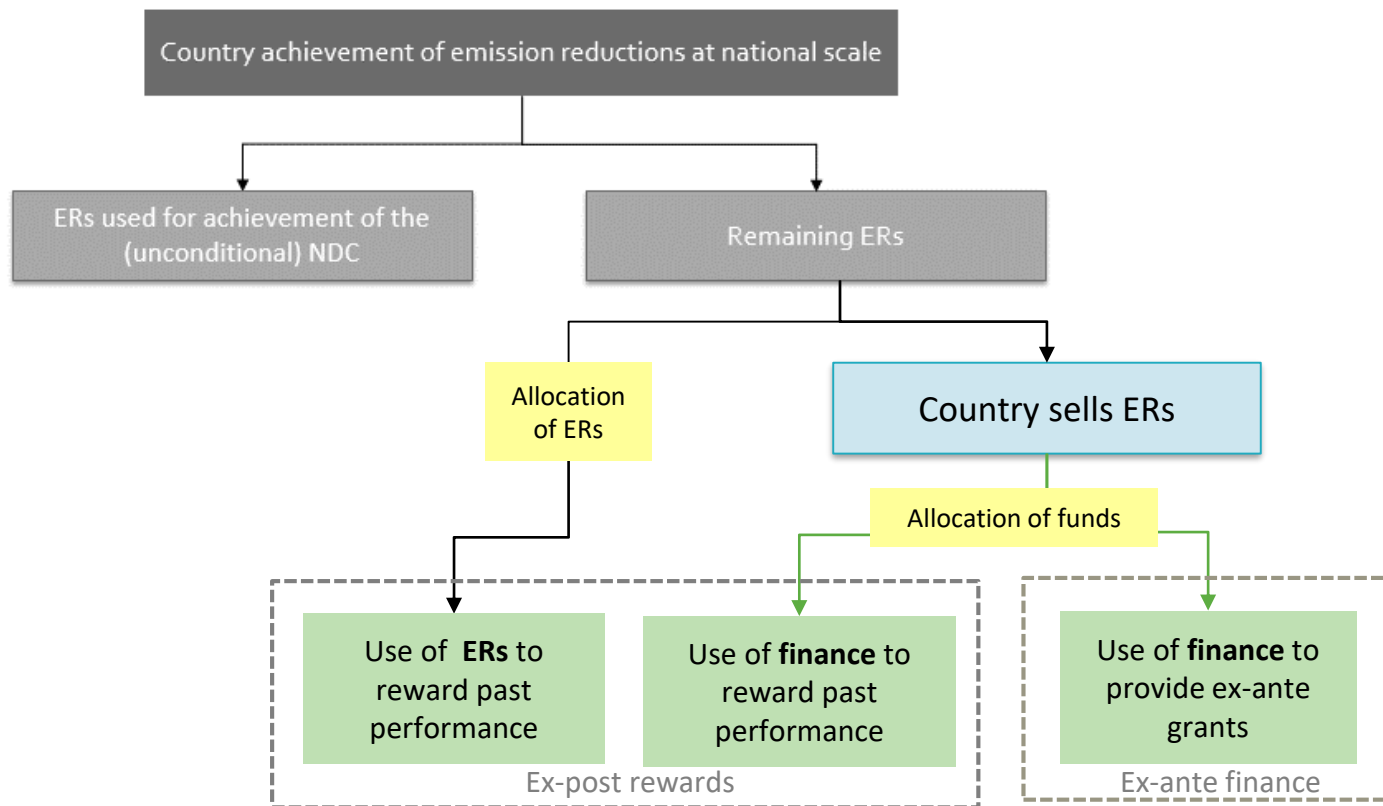
New system for the Amazon – defines 'payment collection limits'



Why did Brazil shift its approach and design of the Amazon Fund?

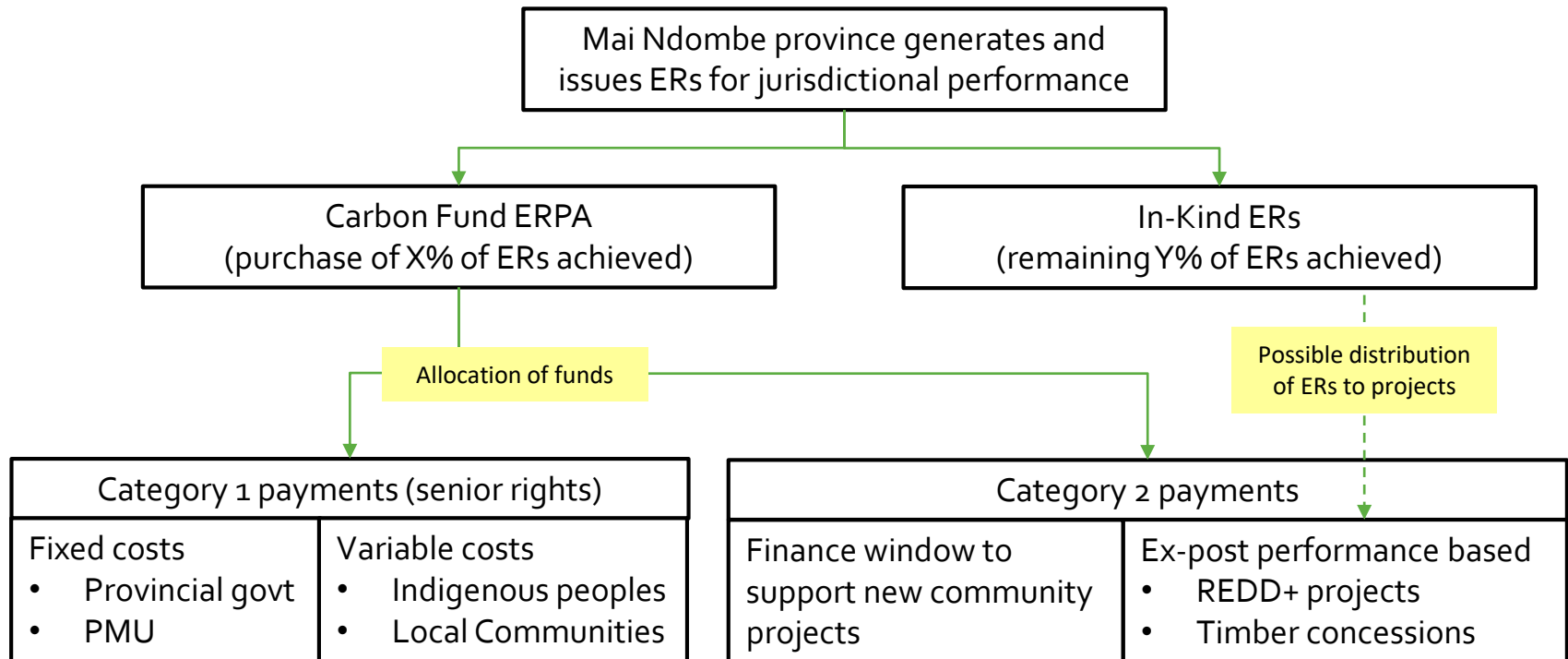
#2 – Ex-post rewards: Finance or ERs?

If a country generates ERs and wishes to reward projects or subnational units, is it better to provide finance or 'pass through' a portion of ERs?



Example: Mai Ndombe ER Program

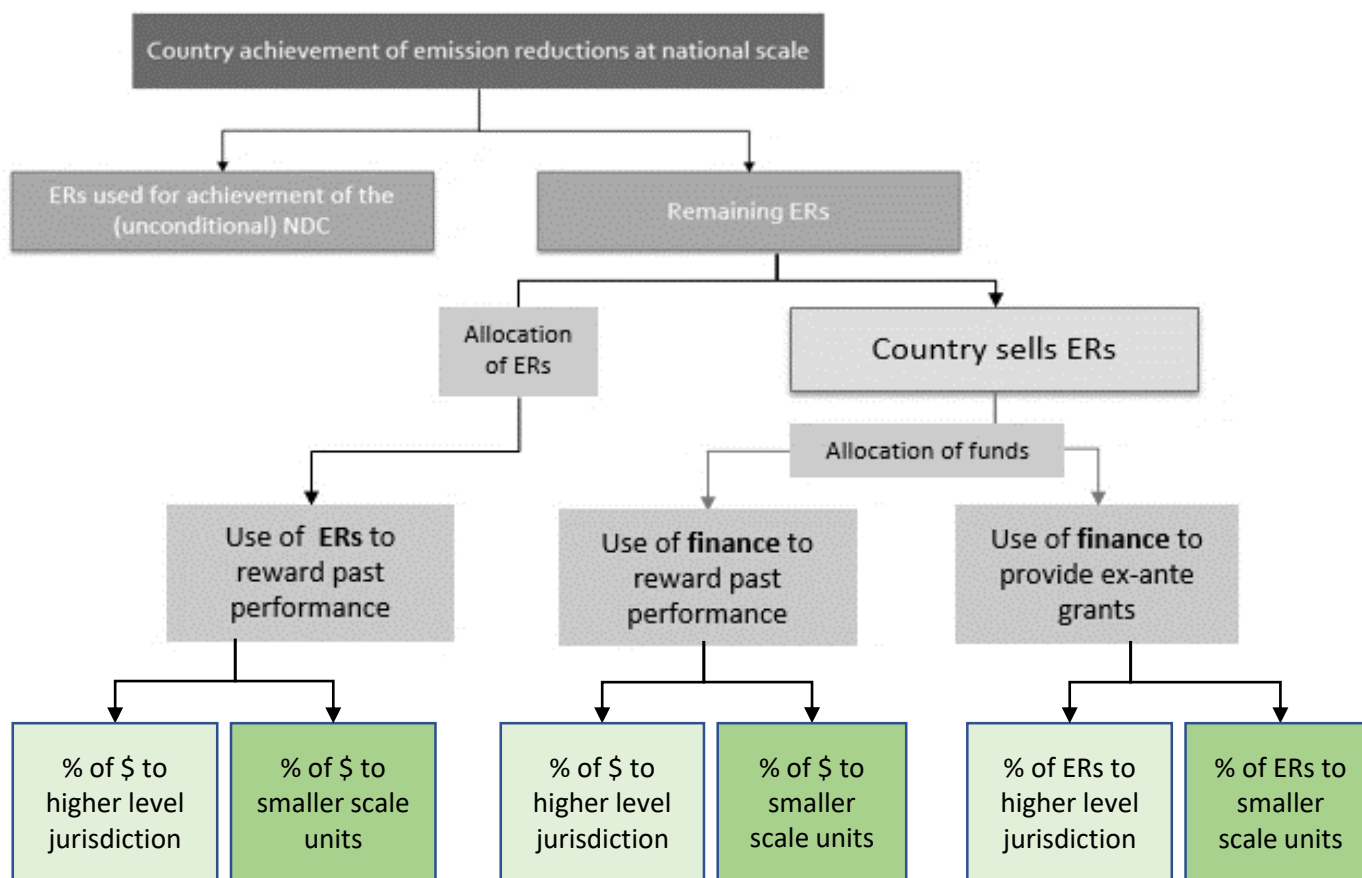
Mai Ndombe's ER program may result in both the allocation of ex-ante finance, plus financial rewards for ex-post performance, plus possibly allocation of ERs for ex-post performance.



Providing different types of incentives (ex-ante finance and ex-post rewards) is complex, but allows the most appropriate incentives for different actors

#3 – National versus local efforts?

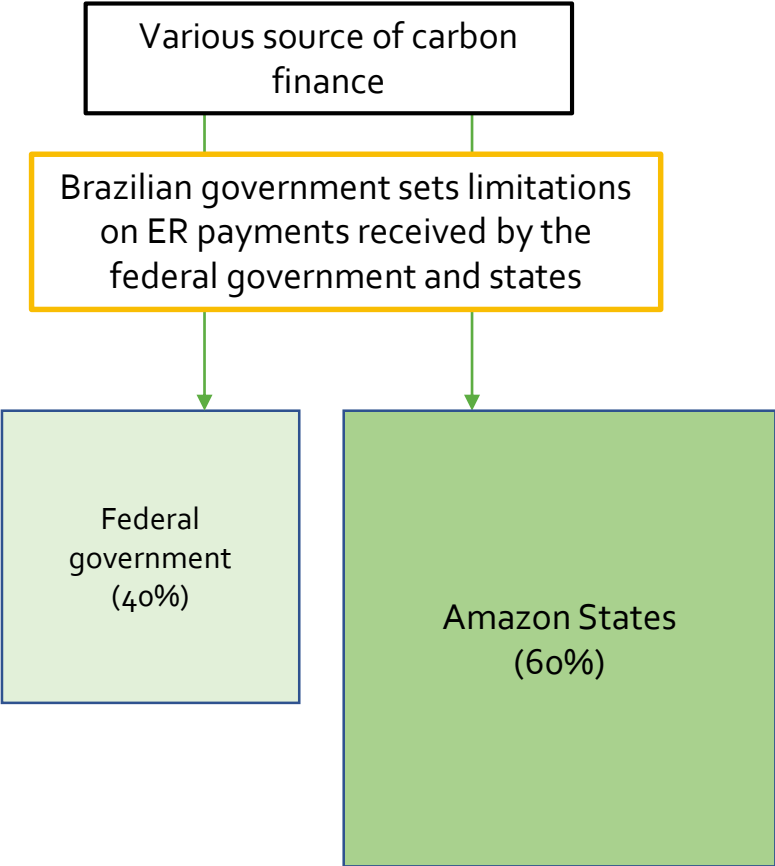
What are the relative contributions of national vs. local actions?



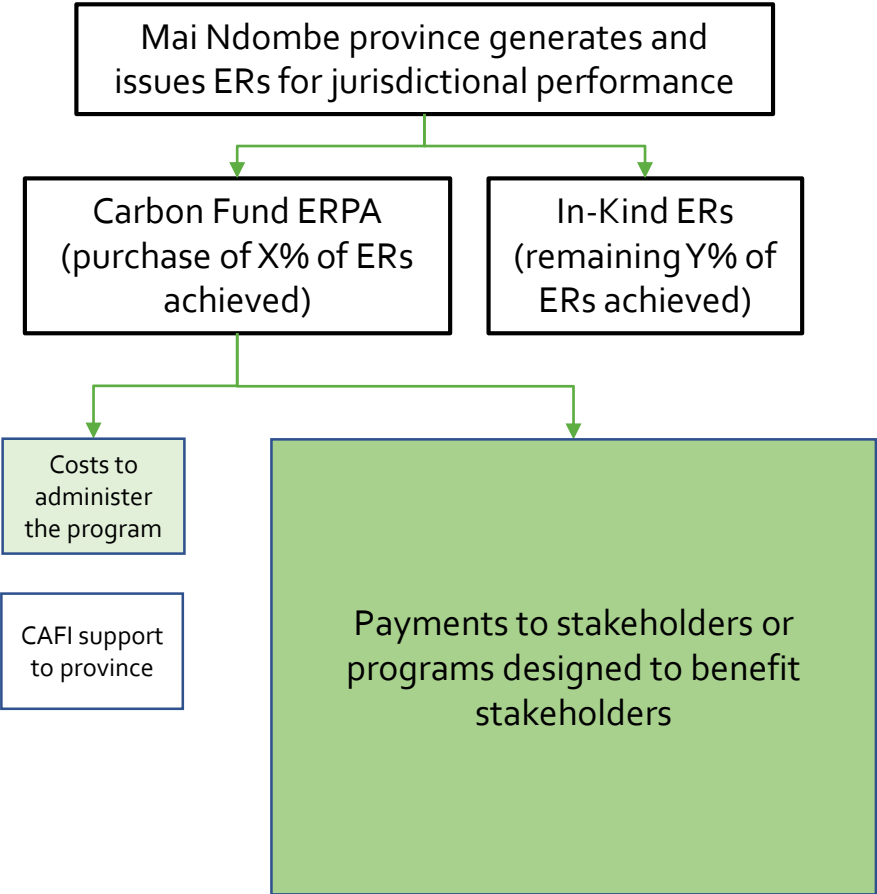
Examples: Government vs. Local actors

Different national circumstances will result in different “sharing” of the benefits between the national government and subnational/project units.

Amazon

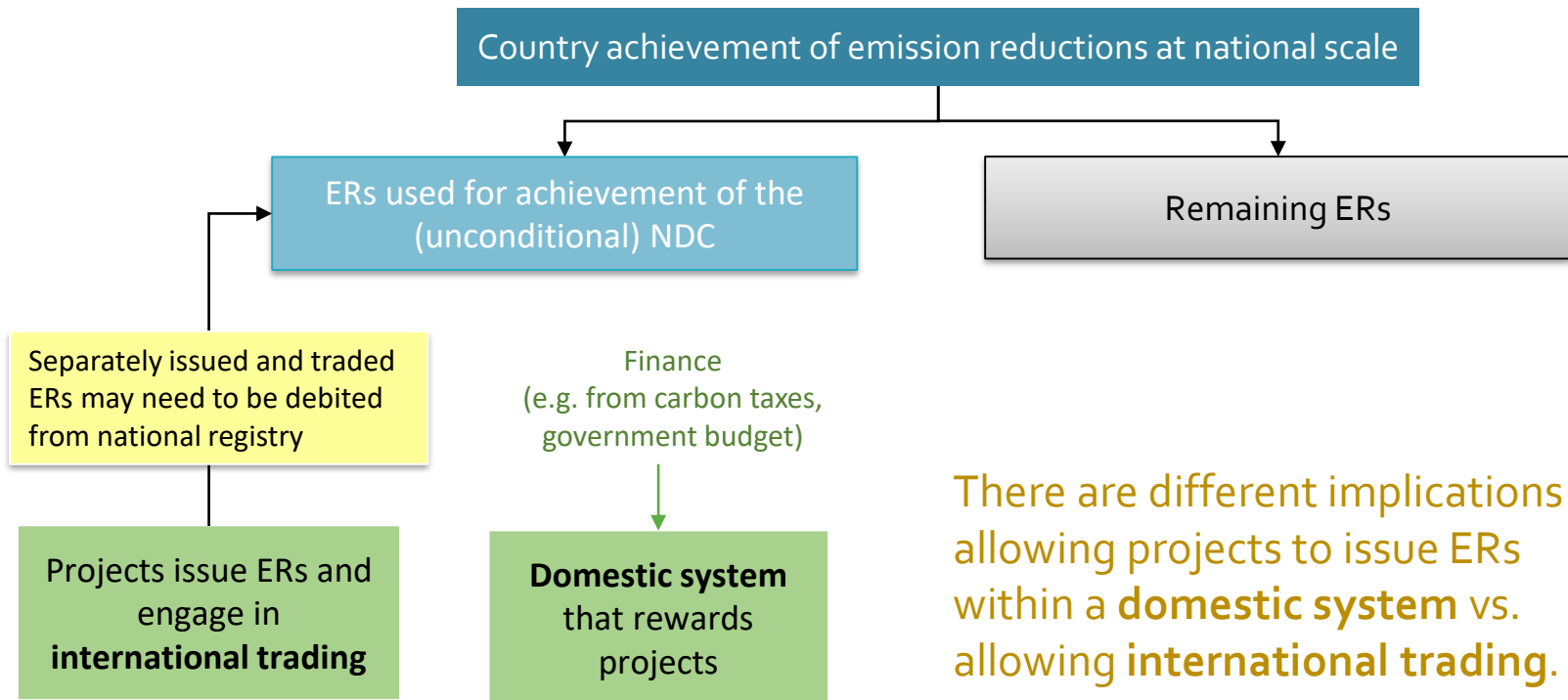


Mai Ndombe



#4 – Allowing stand-alone projects

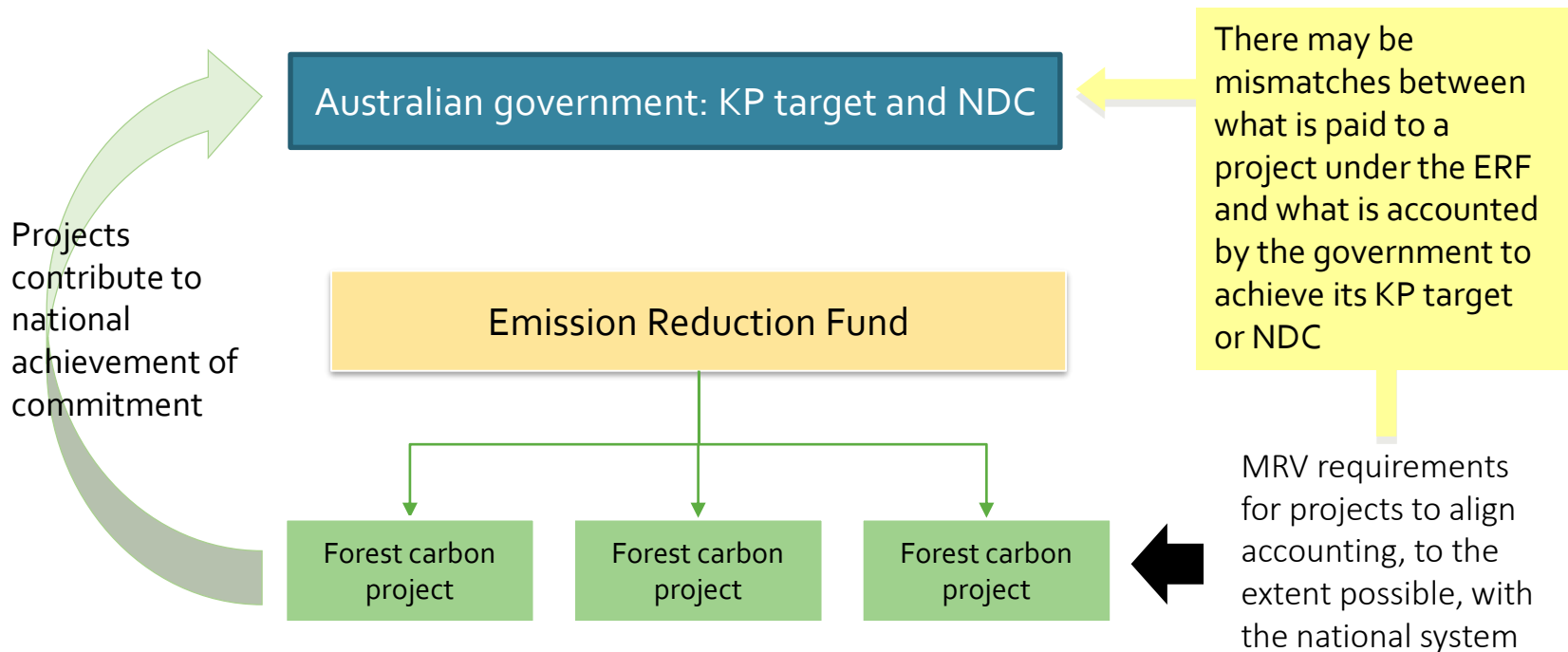
There may be instances where projects are allowed to generate ERs separately – not as part of a benefit sharing, or allocation, system



There are different implications of allowing projects to issue ERs within a **domestic system** vs. allowing **international trading**.

Example: Australia (domestic system)

As a policy tool to support achievement of its international commitments, Australia allows land owners to generate Australian Carbon Credit Units and, through this, generate finance through sale of such units to the government's Emission Reduction Fund.



Allowing projects to generate "stand-alone" emission reductions requires some party to take on the risk of mismatches between national and project accounting – in the case of Australia, the government takes on this risk.

Allowing stand-alone projects:

Stand alone projects raise a number of challenges that are not present when simply allocating finance or ERs generated at higher scales to smaller units (or actors within the landscape).

Benefits



- **Stronger incentives**
Provides clear rewards for actors that perform.
- **Catalyzes private investment**
Particularly useful where there is forest mitigation potential on privately held lands for which the government otherwise has little influence.

Risks

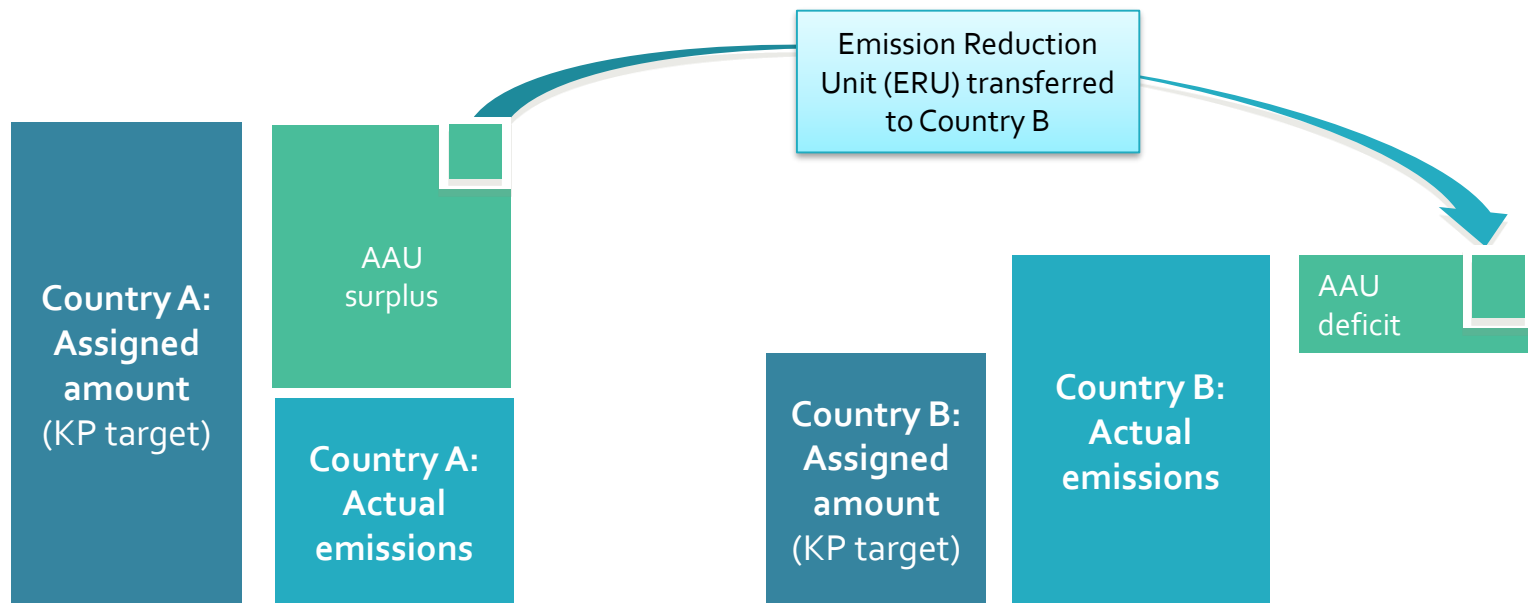


- **MRV mismatch**
Allowing projects to generate their own ER units may require development of MRV rules and systems to minimize mismatch and different scales—or for some entity to take on the liabilities for mismatches
- **Double counting**
Where projects are allowed to sell carbon units internationally, systems are needed to avoid double counting (or claiming)

Generation by projects of 'stand-alone' emission reduction units is much more challenging if international trading of those units are allowed.

Kyoto Protocol JI (international trading)

Joint implementation under the Kyoto Protocol allowed countries with surplus “assigned amount” units (i.e. countries that exceeded their ‘target’) to generate and sell Emission Reduction Units (ERUs) to countries that faced deficits or found it more cost effective to purchase ERUs than to reduce emissions domestically.

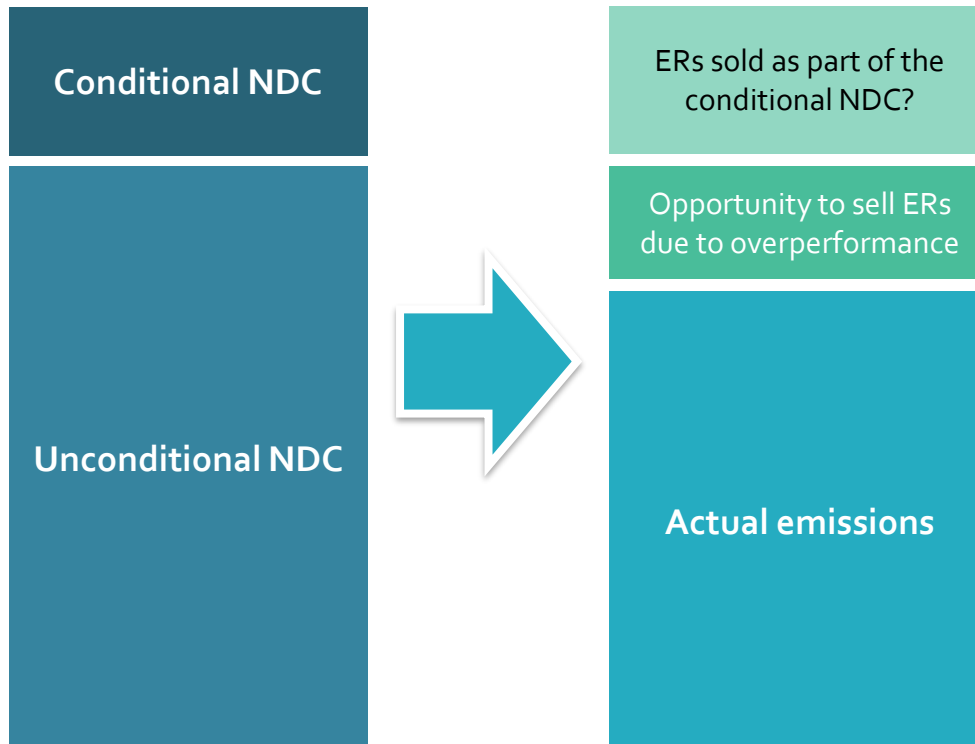


Mismatches between national GHG inventories and calculation of units by projects may be unknown. In general, however, volumes of traded units were low compared to AAUs.

...compared to REDD+ countries

For countries with Paris commitments, ERs can only be sold when a country expects to overperform (beyond its unconditional commitment), and possibly also to achieve the conditional portion of an NDC.

REDD+ country

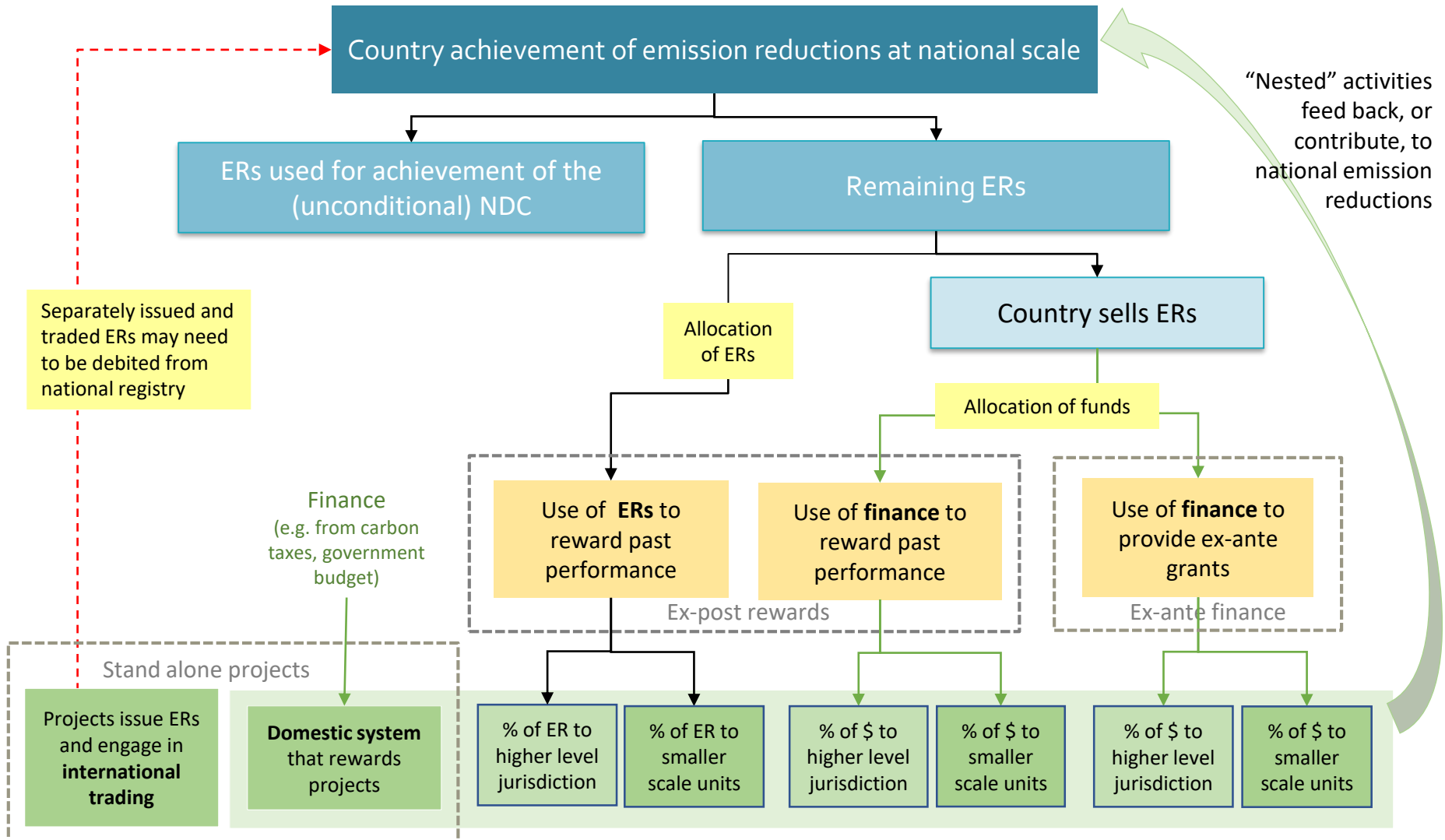


This requires:

- Achieving (or overperforming against) the NDC
- Robust GHG inventory
- Possible alignment between REDD+ accounting and GHGI (if large volumes are traded)
- National registry system to track ERs

Putting it all together...

→ Flow of ERs
→ Flow of finance



Technical challenges

MRV mismatches

The data and information used to develop reference levels and measure results are often different at the national versus project scales...

National

- Uses (medium resolution) Landsat to measure forest cover change
- Carbon stock estimates from national forest inventory or default values
- Stratification based on national forest classes, may combine (i.e. fewer strata) to reduce uncertainties
- Often only includes above and below-ground biomass and excludes non-CO₂ gases

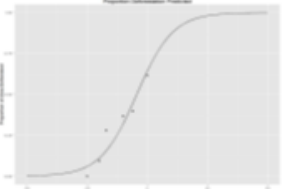

Project

- May use higher resolution imagery to measure forest cover change
- Often collects and uses own site-specific carbon stock estimates
- Typically many more strata than national GHG inventory due to use of data with finer spatial scales
- May choose or be obligated to measure deadwood, litter, soil and non-CO₂ gases

Because subnational jurisdictions tend to use national data, nesting such units is easier than nesting projects

Baseline setting

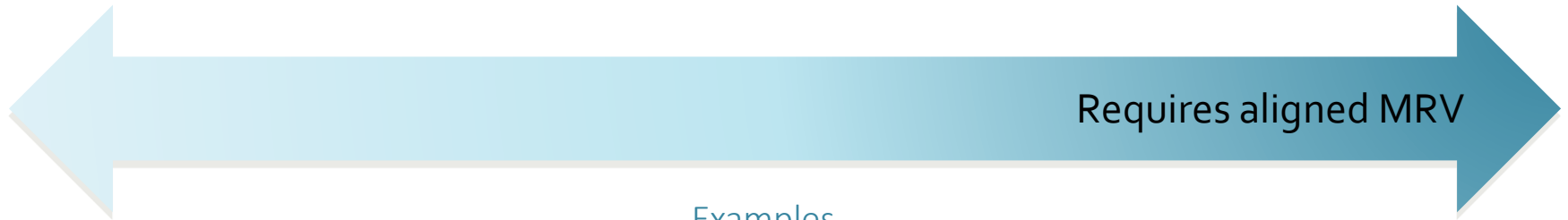
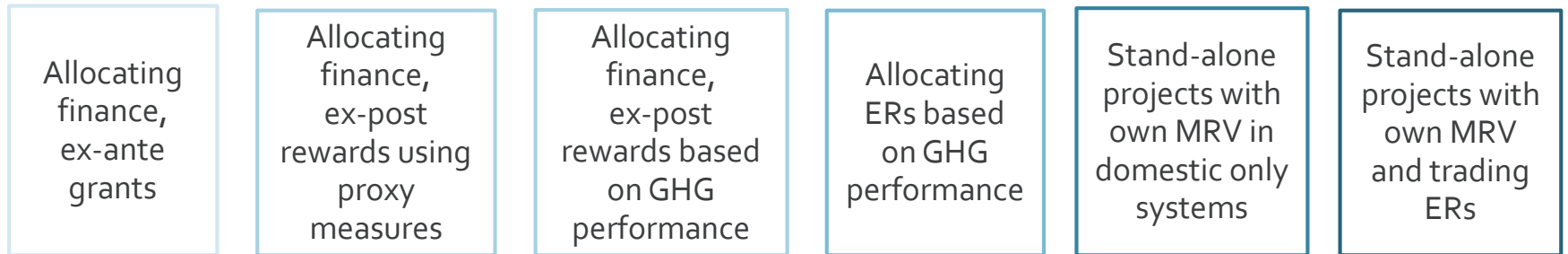
Methods projects use to develop baselines and account for emission reductions are different than those used for large-scale jurisdictions. National and subnational reference levels mostly use an historical average while projects often model counterfactual, increasing deforestation rates. In most cases, it is not possible to simply “apply the jurisdictional baseline to projects”.

BCP's LZRP	COMACO's LMP	National FREL
<p>Ref. period: 1984-2009</p> <p>Method: Logistic function</p> 	<p>Ref. period: 2002-2013</p> <p>Method: Modeled emissions</p> <p>TerrSet Land Change Modeller was used to calculate expected deforestation based on distance to settlements and roads and topography.</p>	<p>Ref. period: 2006-2014</p> <p>Method: Historical average</p> 

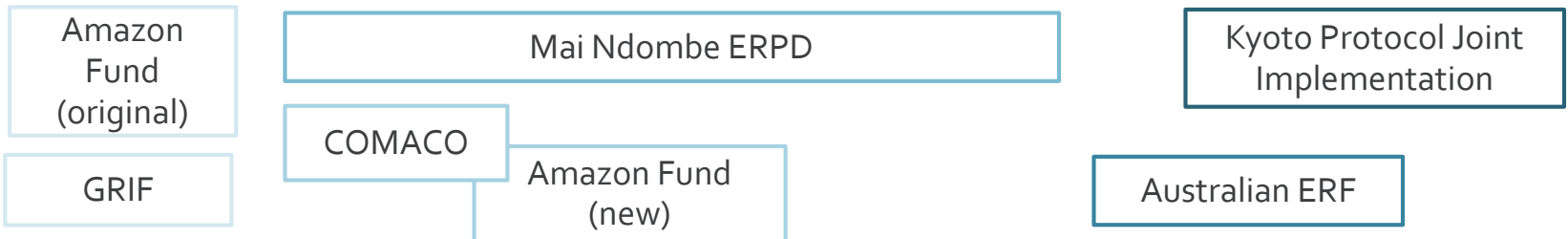
Baseline challenges are much greater for avoided deforestation and forest degradation than A/R and forest management.

Technical challenges depend on the nested design: Some systems are easier than others

Nested systems



Examples



Simplifying through use of proxies

COMACO uses simple metrics (related to conservation farming practices, wildlife protection, forest conservation and community leadership) to rate performance of chiefdoms, and provide them premium off-take prices, ~10-20% above market.



The use of simple, proxy measures that are easily understood by communities is one option for allocating carbon benefits (finance or ERs).

Conclusions

The Paris Agreement suggests a re-think of the concept of 'nesting'. Countries must now consider how to achieve (unconditional) NDCs, which fundamentally changes the dynamic for projects operating within countries with such obligations.

Experience with nesting is still in its infancy—and therefore it is useful to avoid having fixed ideas on what it entails. The concept will continue evolving over time, so it's good to be flexible and adaptive.

Creating a nested structure can improve the sustainability of a jurisdictional program. Finding ways to reward or incentivize local action is critical to achievement of large-scale performance.

For most countries, nested systems will likely be 'allocation' driven. Systems that allow stand-alone projects that can freely trade internationally are more challenging—from both a policy and technical point of view.

From a technical perspective

- It is easier to nest sub-jurisdictions than projects
- Nesting of A/R and IFM is easier than avoided deforestation
- Perfectly aligning projects vs. national accounting has not yet proven to be feasible
- International trading is more challenging and requires extra capacity and effort
- Proxies may be one option – although important to understand the benefits and risks

