Green/REDD+ bonds to finance REDD+ programs: an overview

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Unlocking Private Sector Finance

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Mobilising forest finance at scale faces several fundamental challenges, to both investors and donors like the FCPF and Biocarbon Fund

Challenges for commercial investors

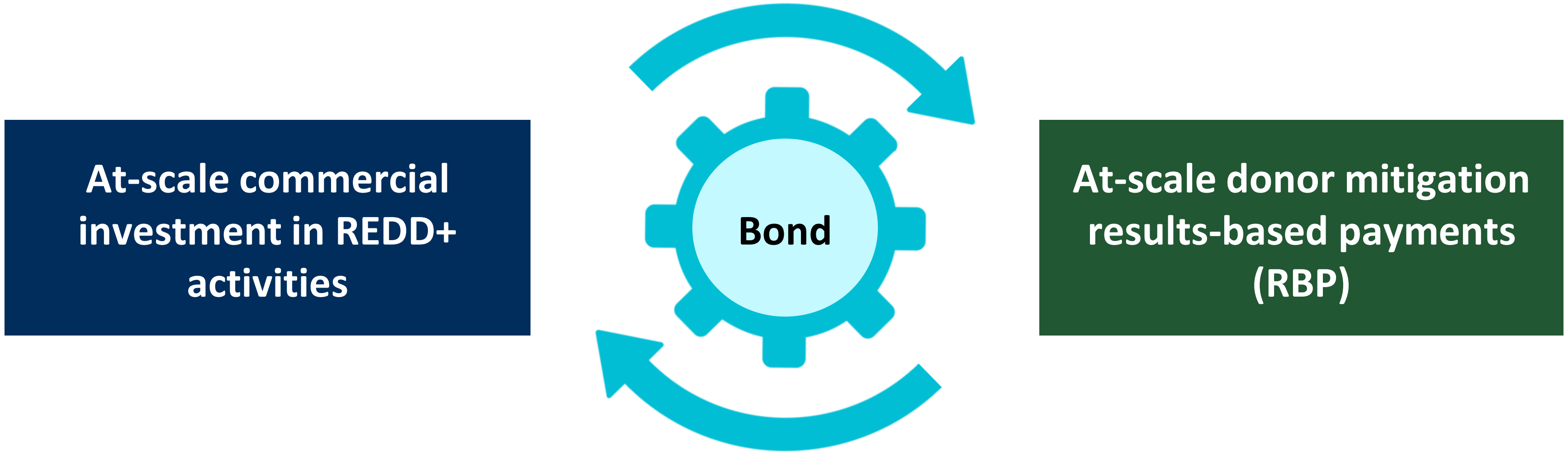
- **Sub-commercial returns** of forest-related investments that achieve mitigation
- **High credit risks** and lack of collateral of many ‘project developers’ (small farmers)
- **High commercial transaction costs** associated with credit analysis
- **Limited track record** and investor experience in assessing investment returns, increasing the (perceived) risk
- **Access to capital for local financiers** which have below investment grade credit rating, and high FX and inflation risk

Challenges for donors

- **MRV requirements are costly**, especially when not integrated into existing systems
- **Lack of well-defined carbon market** can make it challenging to find large-scale mitigation supply
- **Managing leakage risks,** and integrating projects into jurisdictional approaches
- **Project developers lack the technical capacity** to undertake mitigation interventions
- **Financing institutions lack the technical capacity** to identify or support projects that achieve climate mitigation

Overcoming the challenges of each depends to some extent on the other… a bond can help launch a virtuous cycle

- Larger scale investment opportunities reduce relative cost of MRV, better support carbon markets, could bring down global leakage risk, and encourage investment in capacity



- Larger scale results-based payments (RBP) increase the commercial viability of projects, reduce credit risk, reduce transaction costs and encourage investment in capacity

Today, we focus our attention on three broad types of 'forest bonds'

Vanilla bond for forestry	Green bond for forestry	Enhanced bond with REDD+ RBP
Proceeds could be used for anything	Proceeds must be used for forestry	Proceeds must be used for forestry
	Certification standard	Certification standard
		Integration of REDD+ results-based payments

Though even within these broad types, bond designs can vary a lot

	Possible options			
Green bond certification	Uncertified	Second opinion	Climate bonds certified	
Additional revenue streams	None	REDD+ results-based payments	Payments for ecosystem services	Carbon credit sales
Recourse mechanism	Issuer guarantee	Project / program	Loan refinancing	Dual recourse
Issuer	National govt	Subnational govt	Public / development bank	Corporate
Coupon structure	Fixed cash	Fixed with choice	Varies with performance	
Recourse enhancement	Credit enhancement (e.g. from MIGA)	Subordinated debt		

The most suitable recourse mechanism will depend on the issuer, the underlying investments and the 'target' investors

Recourse mechanism	Issuer guarantee	Project / program	Loan refinancing	Dual recourse
	• Issuer guarantees to pay the coupon and principal in all situations • Issuer must have suitable credit rating or credit enhancement • Credit enhancement can improve credit rating	• Need strong underlying assets, clear business case and projected cash flow of project • Clear management structure and/or ringfencing of revenues	• Credible information on loan portfolio performance • If possible, verified credit rating • Clear management structure and/or ringfencing of revenues	• Combination of issuer guarantee and recourse to underlying assets • Aims to achieve higher credit rating than either alone

Green bond certification guidelines aim to provide investors with transparent and objective criteria to judge environmental impact

The world of forest bonds is not yet well defined. Over the past decade, two key sets of guidelines for green bonds have emerged, and these are still evolving and becoming increasingly comprehensive.

- <u>IMCA Green Bond Principles</u>
  - ◊ voluntary process guidelines on how issuers could launch a credible Green bond
  - ◊ four key components: (i) use of proceeds; (ii) process for project evaluation and selection; (iii) management of proceeds; and (iv) reporting
  - ◊ recommend issuers opt for external verification through a second opinion, audit or third-party certification

- <u>Climate Bonds Initiative (CBI) Climate Bonds Standard</u>
  - ◊ scientific sector-specific standards to ensure use of proceeds are consistent with 2 degrees warming limit
  - ◊ third parties verify bonds comply with the Standard and CBI issues a certificate
  - ◊ fully integrates the Green Bond Principles – certification is matched with clear post-issuance reporting requirements

The Climate Bonds Initiative (CBI) released green bond standards for the forestry sector in November 2018

		Plantation forestry	Sustainable forest management	Non-timber forest products (NTFP)	Forest conservation & restoration	Conservation & restoration of other non-forested land	Supply chain activities
Mitigation Component	No natural landscape conversion	✓	✓	✓ ✗	✗	✗	✗
	Carbon stocks aremaintained through good management practices	✓	✓	✓	✓	✓	✓
Resilience Component	Impacts that climate change may cause to the resilience of the forest, land or surrounding ecosystem are understood and mitigated	✓	✓	✓	✓	✓	✓
	General health of the forest is maintained through good management practices	✓	✓	✓	✓	✓	✓
FPIC Component	Free, prior and informed consent is applied	✓	✓	✓	✓	✓	✓

✓ Requirement applies ✗ Requirement does not apply ✓ ✗ Requirement applies in some scenarios

Source: Climate Bonds Standard: The Forestry Criteria. Climate Bonds Initiative (2018)

Financial institutions, corporates and governments have all issued green bonds in the forestry sector

Issuer	Date of issuance	Country	Value	Use of proceeds
Landshypotek Bank	May 2018	Sweden	SEK 5.2 bn (USD 605 mn)	Mixed bond for sustainable forestry, renewable energy and green buildings
Federal govt of Nigeria	Dec 2017	Nigeria	NGN 10.6 bn (USD 27.9 mn)	Projects within the national budget including national afforestation program and solar energy
Suzano Papel e Celulose	Sep 2017 / Nov 2016	Brazil	USD 200 mn / BRL 1 bn (USD 295 mn)	Forestry projects with clear environmental benefits and that foster sustainable development
Martha's Vineyard Land Bank	Mar 2017	USA	USD 20 mn	Preservation of woodland for biodiversity
Sveaskog	Mar 2016	Sweden	SEK 1 bn (USD 116 mn)	General corporate purposes, pure-play forest company with 100% FSC-certified assets

Source: List of Climate Bonds Standard certified bonds; Forestry sector criteria. Climate Bonds Initiative (2018/19)

An 'enhanced bond' aims to blend donor-funded RBP with upfront grants to enable larger-scale financing from capital markets.

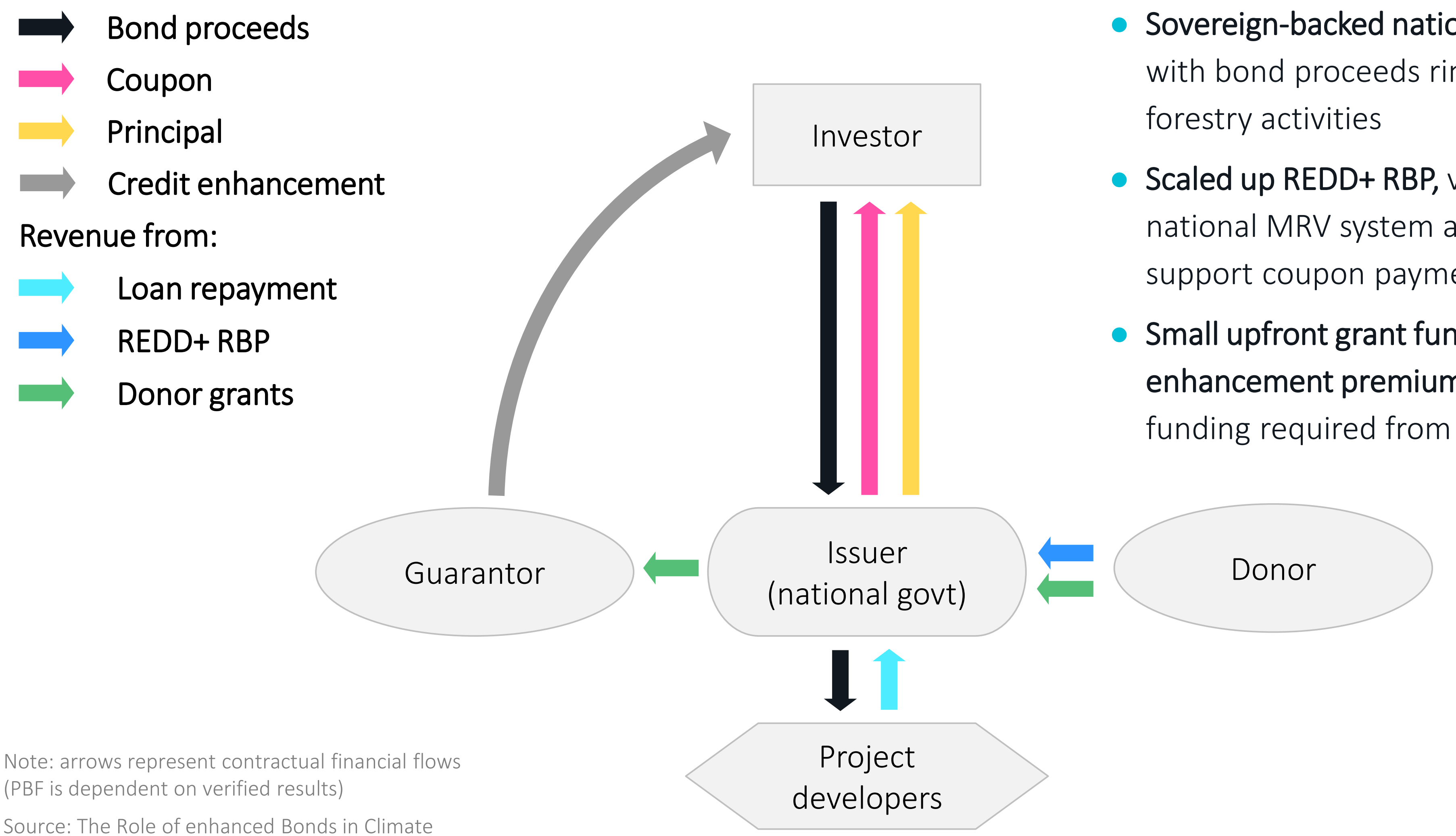
These structures hope to achieve greater scale and efficiency in meeting NDC goals by offering all counterparties a better deal:

i. **for investors**, they offer yields and credit ratings that are competitive with mainstream markets but where the use of proceeds are ring-fenced for pro-forest outcomes (just like green bonds for forestry);

ii. **for issuers** (whether forest country governments, public banks or private commercial actors), they offer financial instruments with more attractive terms than those currently obtainable in the market;

iii. **for donors**, they offer a payment instrument that more effectively drives forest-based emission reductions, harnessing additional resources from forest countries alongside greater private sector leverage.

This structure is designed to help forest country governments leverage donor funding to meet NDC forestry goals at the lowest cost



- **Sovereign-backed national govt issuance,** with bond proceeds ringfenced for NDC forestry activities
- **Scaled up REDD+ RBP,** verified using national MRV system and ringfenced to support coupon payments
- **Small upfront grant funds credit enhancement premium** and reduces overall funding required from the donor

Note: arrows represent contractual financial flows (PBF is dependent on verified results)

Source: The Role of enhanced Bonds in Climate Finance; World Bank, Vivid Economics and Forest Trends (2017).

Both green and 'enhanced' bonds offer a number of key advantages relative to vanilla bonds, but also carry some additional costs

Green bond for forestry

- ✓ Access to new investor pool
- ✓ International support for structuring, issuance and monitoring
- ✓ Possible financial benefits i.e. 'greenium'
- ✗ Increased costs through project selection, certification and reporting

Enhanced bond with REDD+ RBP

- ✓ Embedded RBP reduces payment uncertainty and may encourage greater donor commitments
- ✓ Credit enhancement lowers the cost of capital and RBP decreases the cost of credit enhancement
- ✓ This allows support of sub-commercial project activities
- ✗ Increased liquidity risk for the issuer (dependent on agreement with project developer)

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