

Crunch Issues for Integrity of Forestry Carbon Credits

Side-event at SB56

Lambert Schneider | Bonn | June 2022

Crunch issues for integrity of forest carbon credits

1. Non-permanence
2. Additionality / Baselines
3. Leakage
4. Environmental and social safeguards



Non-permanence

Non-permanence definition and issues

What is non-permanence?

Non-permanence occurs if a mitigation activity enhances or preserves carbon stocks in carbon reservoirs but, at a later point in time, some or all of the additional increment in stock caused by the mitigation activity is released to the atmosphere.

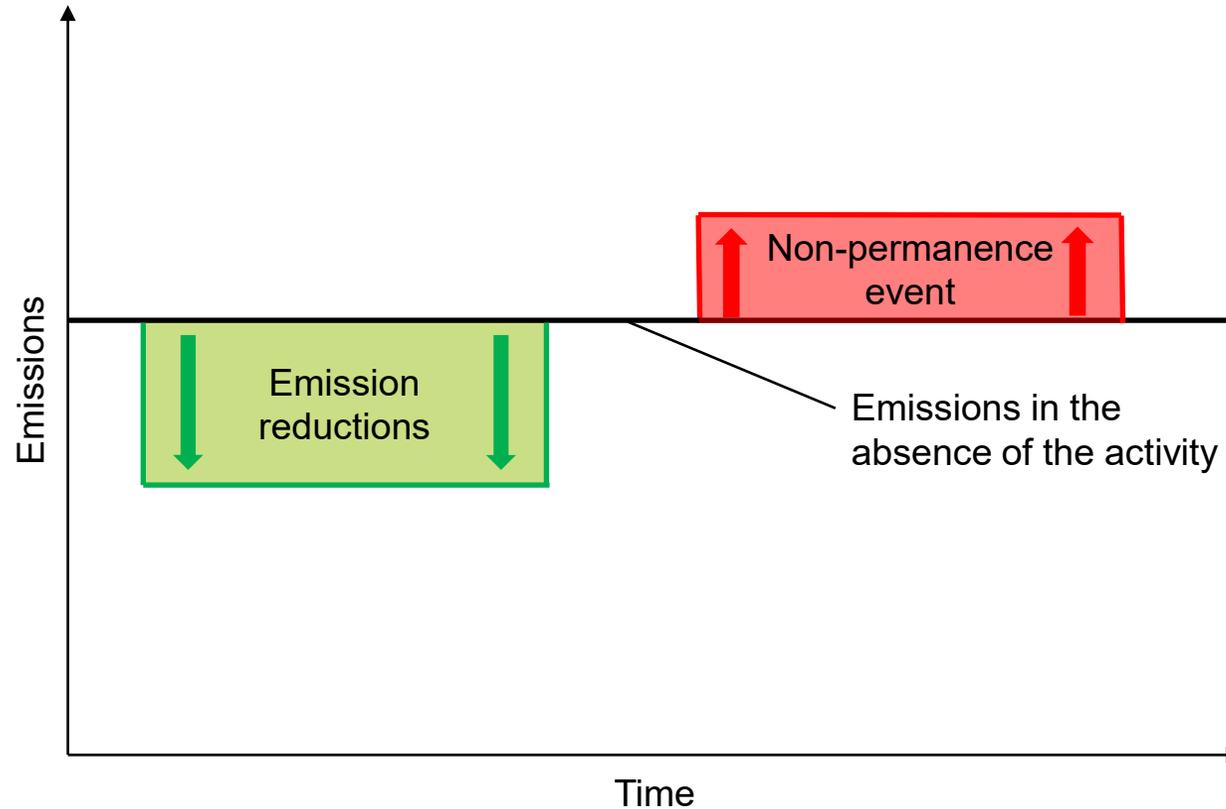
How can it occur?

- Natural processes (e.g., wildfires)
- Anthropogenic drivers (e.g., land conversion)

Consequences of non-permanence when carbon credits are used for offsetting

- Mitigation activity only delays emissions to the atmosphere
- Such delays have some short-term benefits but do not help much to achieve 1.5 goal

Illustration of non-permanence



How can non-permanence be addressed?

1. **Avoiding or reducing the risk of non-permanence events:** Exclusion of projects with high non-permanence risks or incentives for project owners to manage risks
2. **Accounting / compensating for reversals**
 - **Issuing temporary carbon credits:** Credits automatically expire after a pre-defined period and need to be replaced; new temporary credits may be issued if no reversal occurred
 - **Compensation for reversals through pooled buffers (or insurances):** A fraction of the carbon credits is set aside in a pooled buffer. Reversals are compensated for by cancelling credits from the pool
3. **Limiting credit issuance**
 - **Discounting:** Part of the emission reductions are not issued as credits
 - **Various forms of “ton-year accounting”**

Key integrity challenges (1)

For how long are reversals monitored and compensated for?

- In theory, monitoring and compensation necessary in perpetuity (or hundreds of years)
- In practice strongly varying approaches by carbon crediting programs

Climate Action Reserve (CAR)	100 years
Gold Standard (GS)	50 years
Verified Carbon Standard (VCS)	20 years
ART TREES	1 or 5 years
CORSIA	Until 2037
Clean Development Mechanism (CDM)	In theory in perpetuity, in practice until 2023

Key integrity challenges (2)

Pooled buffer reserves

- Capitalization
- Diversity
- Institutional longevity

Action of monitoring discontinues

- Assumption that all emission reductions are reverted (e.g. CDM)
- Assumption that only a small fraction is reversed (e.g. VCS)

Incentives for avoiding reversals

- Primary responsibility for project owners to compensate for “avoidable” reversals
- Reversal risk assessment and contribution to buffer according to risk
- Insurances



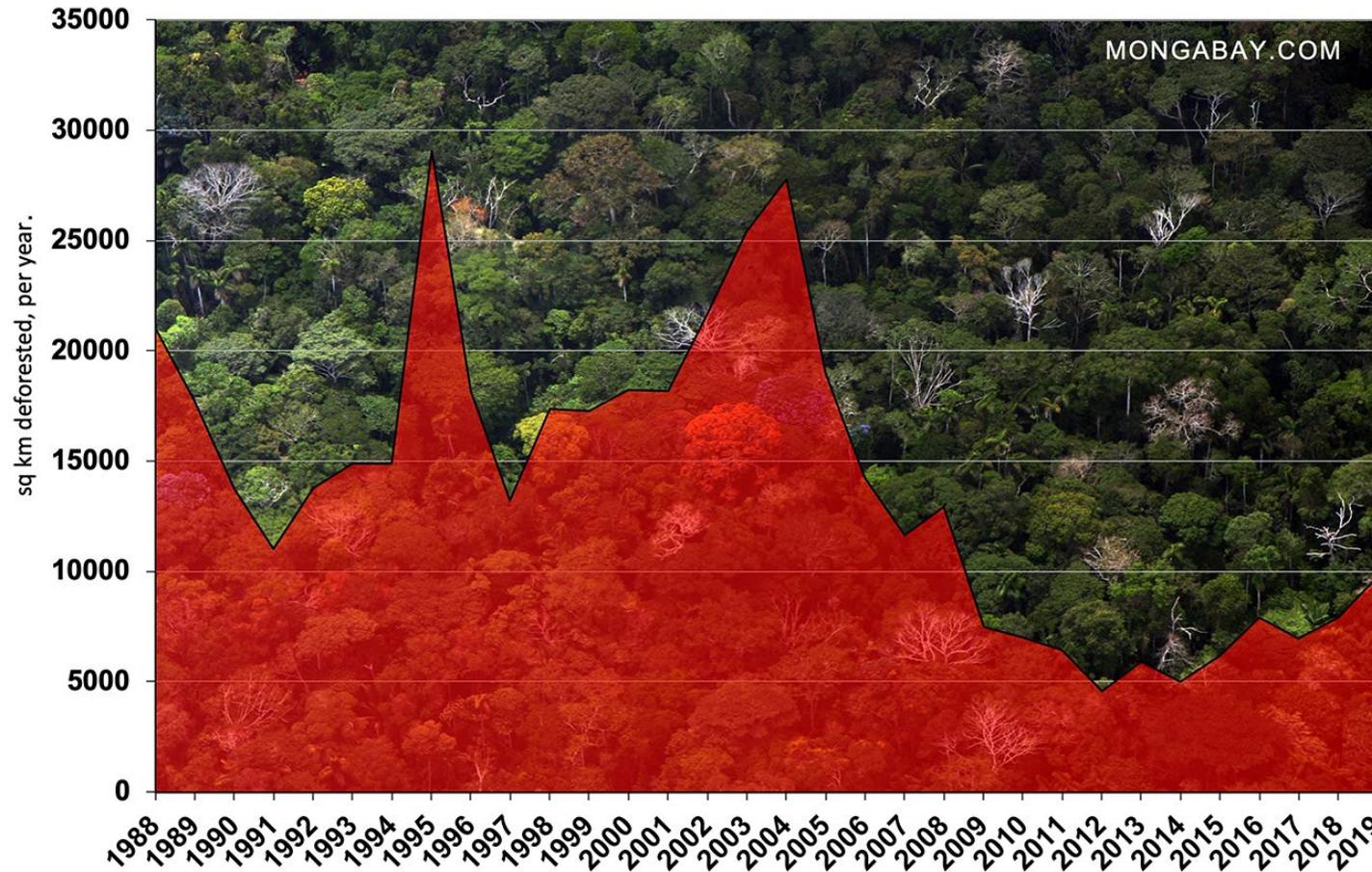
Additionality & baselines

Causality: A key principle for GHG offsetting

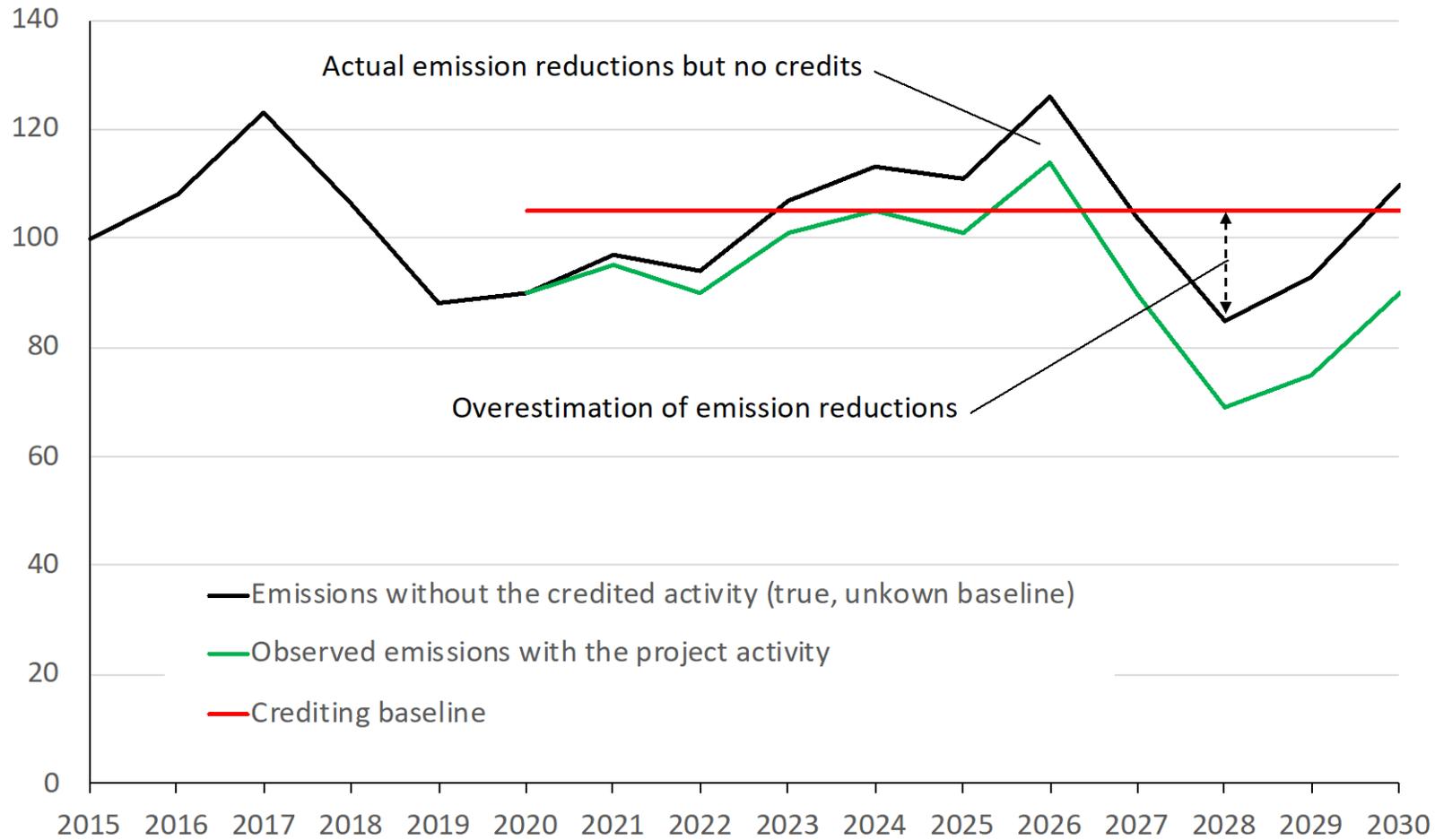
Principle	Description	Key issues
Additionality	The mitigation activity would not be implemented in the absence of the incentives created by the carbon credits	<ul style="list-style-type: none"> • Jurisdictional REDD+: Policy decisions depend on many factors
Attributability	The measured emission reductions occur due to the mitigation activity (and not other factors)	<ul style="list-style-type: none"> • Emissions depend on many exogenous factors (e.g. palm oil prices) • Large uncertainty • Large interannual variability

Example: Fluctuations in deforestation in Brazil

Deforestation in the Brazilian Amazon, 1988-2019



Why is attributability difficult to achieve?





Leakage

Leakage

What is leakage?

The unanticipated decrease or increase in GHG benefits outside of the project's accounting boundary (the boundary defined for the purposes of estimating the project's net GHG impact) as a result of project activities (IPCC 2000)

How can it occur?

- Upstream/downstream emissions
- Activity-shifting
- Market leakage
- Ecological leakage

Leakage risk depends on ...

- Drivers for land-use change (e.g. agriculture, timber, paper)
- Type of activity
 - High risks: Avoiding deforestation where agriculture is a major driver
 - Lower risks: Afforestation on degraded land
- Scale of the activity
 - **Projects** have highest risks
 - **Jurisdictional approaches** can address leakage at jurisdictional level

Global leakage remains challenging and is often not addressed

Environmental and social safeguards

Environmental and social safeguards – Examples

No.	Criterion	CDM	GS	VCS	SD VISTa	CCBS
1	Identification and mitigation of negative impacts: Does the program or standard require project owners to identify potential negative environmental and social impacts, including any likely risks to local and affected stakeholders, and to mitigate them?	● except for A/R projects	●	●	●	●
2	Monitoring impacts: Does the program or standard require the monitoring of potential negative environmental and social impacts on an ongoing basis?	●	●	●	●	●
3	Third party validation: Does the program or standard require that the evaluation of environmental and social impacts by the project owners is validated by a third party prior to project registration?	●	●	●	●	●
4	Grievance: Does the program or standard have a grievance mechanism in place?	●	●	●	●	●
5	Timing of stakeholder consultations: Does the program or standard require that global and local stakeholder consultations are conducted prior to project implementation?	● depends ¹¹	● global & local	● global & local	● global & local	●
6	Specific safeguards: Does the program or standard have specific safeguards in place, e.g. in relation to cultural heritage, health, labour rights, indigenous people, environmental hazards?	●	●	●	●	●
7	Displacement: Does the program or standard have provisions to avoid physical and economic displacement or to ensure that any displacement is managed through appropriate forms of legal protection and compensation?	●	●	●	●	●
8	Consent of indigenous, tribal or traditional people: Does the program or standard require free, prior and informed consent if indigenous, tribal or traditional people are directly affected by a project?	●	●	● only for property rights	● only for property rights	● only for property rights
9	Gender policy: Does the program or standard have a dedicated gender policy?	●	●	●	●	●

Recommendations

- Apply **same principles and scrutiny** to LULUCF as to other sectors
- Limit use of **offsetting** to LULUCF activities for which
 - There is high confidence in additionality
 - Emission reductions can be clearly attributed to the intervention and leakage is manageable
 - Social and environmental safeguards are ensured
- Use **other forms of funding** (including carbon credits with **contributions claims**) for activities that cannot fulfil these requirements
- Ensure **non-permanence** through
 - Exclusion of activities with high non-permanence risks
 - **100-year time horizon** for monitoring and compensating for reversals
 - Legal obligation for activity owners combined with sufficiently capitalized pooled buffer reserves



Thank you for your attention

Relevant research

[Carbon Credit Quality Initiative](#)

[Blog on Article 6 rules](#)

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