Making Natural Climate Solutions crediting programs effective and equitable: innovations and challenges

> MIT Global Change Forum Suzi Kerr, Chief Economist 23 March 2022



Finding the ways that work

Natural climate solutions could contribute 29% of net reductions needed to be on a 2-degree consistent pathway in 2030



3.6 Gt per year from avoided deforestation and peatland impacts

Need to act now on deforestation to avoid (almost) irreversible loss



Years

It is possible: Success in the Amazon...



Emissions in the Legal Amazon

Baseline: 10-year historical average, reset every 5 years

Beyond tropical deforestation: Global Potential NCS Storage



https://www.wri.org/blog/2019/08/how-effective-land-removing-carbon-pollution-ipcc-weighs

Carbon Markets Can Enable Greater Ambition

Total emissions reductions from 2020-2035 in billion tonnes CO₂e



Why use 'markets'?

Means to transfer resources toward those who can protect and restore natural carbon stocks.

particularly to developing countries and local communities and indigenous people within them

Enable and incentivize action

Engage a wide set of actors – mobilize their skills and local knowledge

Article 6 (UN), Compliance markets, Voluntary markets

Mobilize capital to support change

Complement and finance non-market efforts

Massive scaling up required

Would involve 2-4 billion tons of emission credits traded annually to 2035 (Piris-Cabezas et al, 2019)

\$50 per ton implies \$100-200 billion of funds transferred annually from developed to developing countries

In contrast, 4 billion units have been created <u>cumulatively</u> under the Clean Development Mechanism since 2001

most considered low integrity

We need new mechanisms.

Pricing can work for forestry (NZ experience)





Pricing can work for forestry (NZ experience)





Pricing can work for forestry (NZ experience)





Challenges with NCS crediting

Environmental integrity

These challenges apply to all crediting – not just NCS

- Additionality and leakage can reduce with scale
- Permanence (duration) can reduce with scale and avoid climate impact through liability
- Concern that offsetting will lead to reduced effort to lower countries' and companies' own emissions
- Measurement particularly for soil and other 'new' NCS options

Equity – in process and distribution of resources

Confusion – what defines 'good'

Transaction costs – for all

Jurisdictional crediting credible credits for avoiding deforestation at scale

<u>Jurisdictional approaches</u> to forest protection can bring meaningful change at scale. They allow the private sector buyers and public donors to work alongside national and subnational governments, communities, and civil society to achieve social, economic and other environmental objectives across landscapes.



The NCS crediting system



payment for credits generated)

The NCS crediting system



The NCS crediting system



Status of economics and science and the credit market



Foundational science \rightarrow Crediting rules \rightarrow MRV

Economics and Science







How it works

- Jurisdictions reduce deforestation through national or sub-national scale forest protection programs
- Emissions Reductions (ERs) verified and issued by ART



- Transaction of ART credits from jurisdictions purchased or paid for by LEAF Coalition participants via Emergent
- LEAF Coalition participants pay for ERs from jurisdictions at \$10 per ER via Emergent



Payments to jurisdictions enable additional forest protection and increased climate ambition.

\$

.......

\$



Financial Intermediaries distribute payment to jurisdictions and ensure appropriate fund management.

Addressing additionality and leakage: 2 approaches

- 1. Jurisdictional Scale
 - law of large numbers improves our ability to predict business as usual as more firms/farms are aggregated
 - Large areas mean leakage is captured within the jurisdiction

2. Require reductions below business as usual in crediting baseline

'Projects' that opt in claim high levels of deforestation threat – and are rewarded with credits. Who knows?



For large areas (e.g. a state or country) everyone has pretty much the same information to assess deforestation threats. Also ideosyncracies wash out.



Require some protection before providing credits – reduces risk of setting baseline too loosely



Addressing concerns about 'permanence': 5 approaches

- 1. Reduce pressure to reverse meet needs in other ways
- 2. Require replacement of credits if reversal occurs and monitor and enforce (for a long time)
- 3. Require 'insurance' of some form so someone else holds liability
- 4. Conservative baseline buffer
- 5. Pay only for annual value of reduced emissions Require purchase of a future unit to match; or Separate from credit market

Best solutions will depend on context.

Problem is not unique to NCS. Reduced extraction of fossil fuel is not necessarily permanent either. Reserves can be extracted later.

'Duration' at scale



Key messages

- 1. Natural climate solutions are important, and possibly extremely important and in the case of avoiding deforestation, urgent
- 2. Jurisdictional programs can provide high integrity credits from avoiding tropical deforestation
- 3. NCS that is implemented within large-scale systems and in ways that also meet human needs can be at least as additional and 'permanent' as reductions in fossil fuel extraction.



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