Issues in Accounting

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PMR Technical Workshop: Different Market-based Approaches & Implications For A Future Carbon Market

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Overview

- Context
- Importance
- Issues and options

Key sources drawn upon

- OECD/IEA CCXG papers
- Various SEI publications
- Literature on (cross-border) unit accounting is relatively limited

Context: an evolving landscape

- Multiplicity of new and existing market mechanisms
- Interest in greater linkages, direct or indirect
- Lack of clarity around concepts such as net mitigation and avoiding double counting
- Unclear role that unit transfers might play in meeting national goals (pledges, targets, INDCs, etc.)

Importance of robust and shared accounting rules (for unit transfers)

1. Improves unit fungibility
2. Facilitates use of market mechanisms
3. Enhances comparability of effort
4. Improves transparency
5. Reduces risks to integrity/credibility

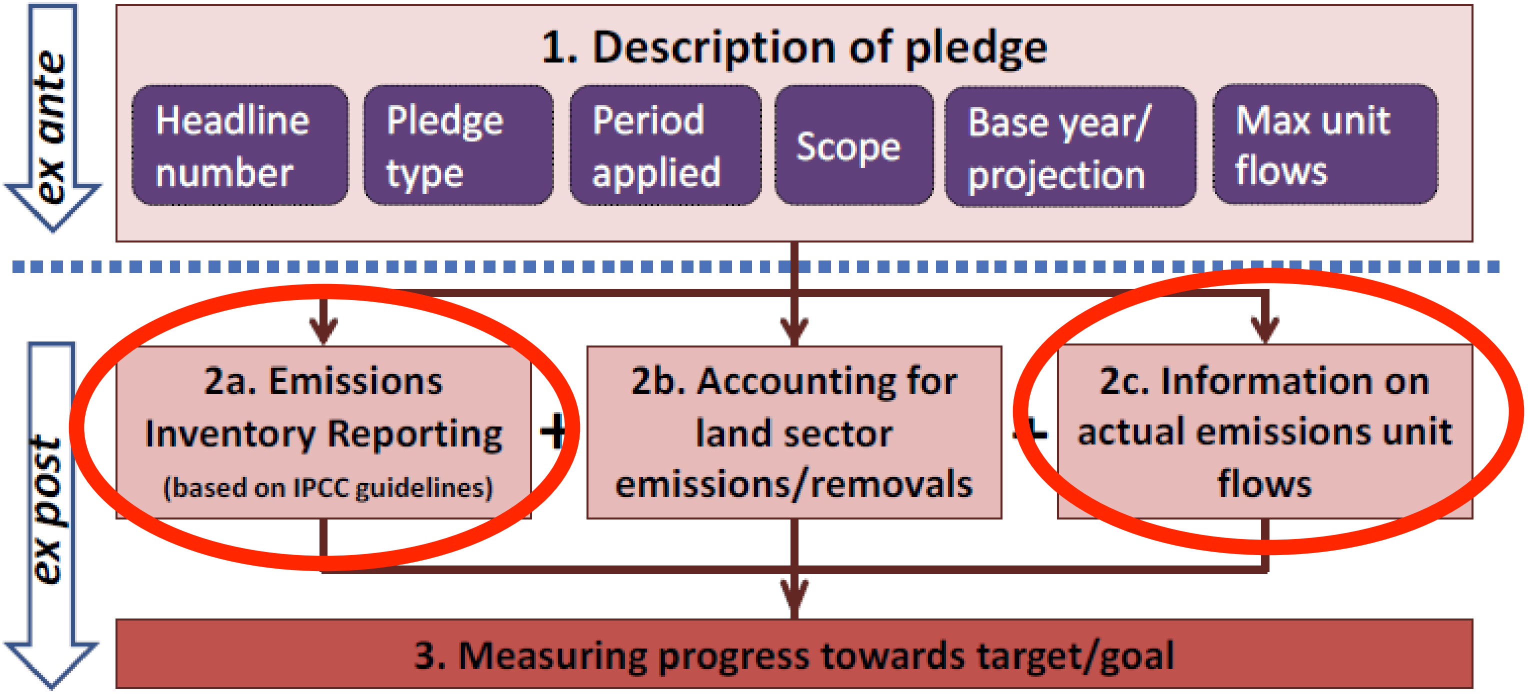
Supports (indirectly) increased mitigation?

Importance of robust and shared accounting rules (for unit transfers)

Accounting systems at various levels are overlapping and interconnected

- nations
  - Importance of national emissions budgets and targets in the future?
- carbon market mechanisms
  - Extent of flows between markets, domestic and international?
- other policies and actions
  - Potential for overlaps in claimed ERs?

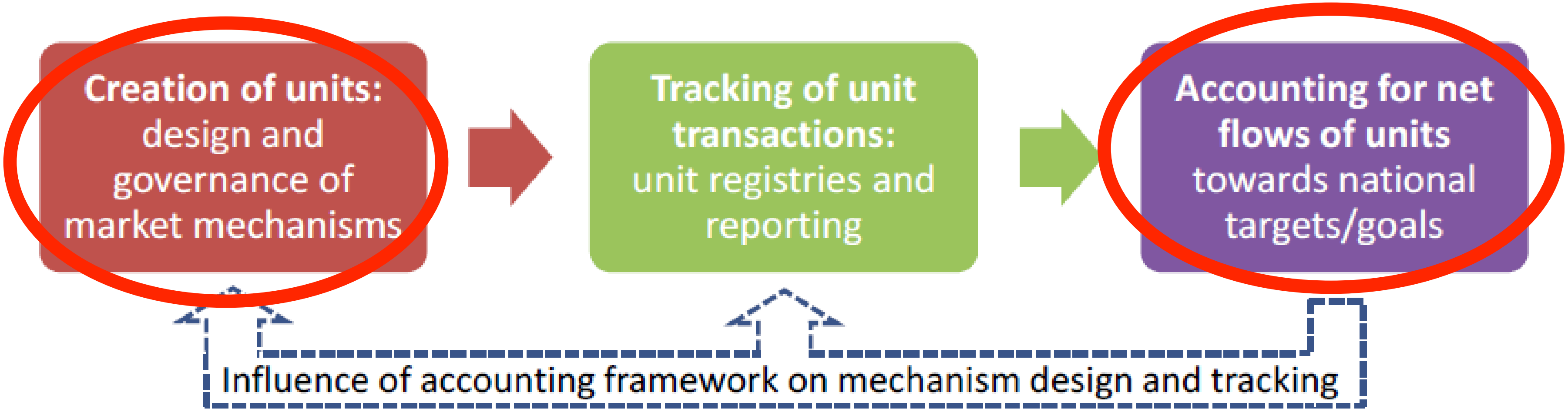
Without national accounting systems for unit flows, progress towards targets cannot be assessed



- *Unless, of course, there are no cross border flows*

Figure source: Prag, Briner, and Hood, 2013. "Made to Measure: Options for Emissions Accounting under the UNFCCC"

Key stages in unit accounting



- Issues arise at creation (“counting”) and use (“accounting”)
- Effective tracking is critical, but is not an (ac)counting question per se

Figure source: Prag, Briner, and Hood, 2013

Such issues could include, among others:

a) Differing GWPs within/across multi-gas mechanisms
b) Potential overlaps in scope and coverage
c) Lack of alignment in measurement/quantification between national inventories and mechanism units
d) Net mitigation benefit and other approaches where 1 ton ≠ 1 ton

… and avoiding double counting in its many possible forms

a) Differing GWPs within/across multi-gas mechanisms and accounts

- GWPs continue to evolve as scientific understanding improves
  - E.g. 100 yr for methane now 34 (28) in 5AR vs. 21 in 2AR
  - UNFCCC inventories use 2AR values, as do most market mechanisms
- GWPs could differ among mechanisms and within a given mechanism (if values change)
- Risk of incompatibilities and arbitrage

➔ *Not a current (ac)counting issue of much significance (?), but might become one in the future; could be complex to address*

b) Scope and coverage

- Overlapping (ac)counting issues could arise with upstream vs. downstream; direct vs. indirect emissions; cross-boundary energy flows, e.g.:
  - Crediting for both biofuel use and production
  - Crediting for renewable energy in power sector covered by an ETS
  - Addressing emissions from cross-border electricity trade
- Risk of double issuance or double claiming if activities (crediting) or coverage (ETS) overlap

➔ *Not yet an accounting issue of major significance; can be managed (some issues more easily than others) through good accounting rules*

c) Alignment between inventories and transferable units

- Market mechanisms, particularly crediting, may use different measurement / emissions estimation methods than inventories
  - E.g. crediting mechanisms may generate and quantify reductions that are not detected by coarser national inventory methods

➔ *Unlikely to be of large magnitude or consequence; can be managed through accounting measures if needed*

d) Net mitigation benefit and other approaches where 1 ton ≠ 1 ton

- Net mitigation approaches (e.g. through pre- and post-issuance discounts, voluntary cancellations) may require maintaining dual accounts (actual vs. goal attainment)
- Use of exchange rates among units could pose additional challenges (e.g. to enable reconciling with national accounts)

➔ *May need to be addressed and reconciled within an overall (shared) accounting approach*

Double counting: a cross-cutting issue

- Considerable potential if units are used extensively
- Possible consequences if double counting not managed:
  - Disincentive to use international carbon markets
  - Incomparability of goals
  - Reduced economic efficiency
- Risks to credibility of the climate regime
- Avoid ex ante or track ex post?
  - Accounting methods are straightforward but reaching agreement on how to avoid double counting ex ante may be difficult
  - Quantifying double counting and adjusting goals to "compensate" ex-post may be (even more?) difficult

Types of double counting

- Principal concerns:
  - Double issuance (e.g. one ER, 2 units)
  - **Double claiming** (e.g. one ER, used towards 2 national goals)
- Other risks:
  - Double use (e.g. one ER, retired twice)
  - Double purpose (e.g. one ER activity used toward goal attainment and financial commitments)

Addressing double counting

- Addressing double counting requires:
  - Accounting rules, AND
  - Consistent carbon market design rules, AND
  - Tracking and recording rules
- For example:
  - Accounting rules could limit double claiming by requiring that units transferred (and used) internationally be added to selling country's emissions account
  - Market designs could use consistent approaches to account for indirect emissions; use attestations and oversight to limit double issuance and use; etc.
  - Tracking and recording rules could require common and comprehensive information about units

In summary

- Robust, shared accounting approaches
  - can increase unit fungibility, use of mechanisms, comparability of effort, transparency, *“credibility”*
  - are technically achievable
  - can support (indirectly) increased mitigation

Some questions

- In your view, what are the key (ac)counting issues?
- In what sequence should they be addressed?
- To what extent do accounting rules need to be common and shared?
- What can and should be done to advance more robust, shared accounting approach?

Thanks for your attention

- For more information
  - Contact: mlaz@sei-us.org
  - Publications available @ www.sei-international.org
    - Single-year mitigation targets: Uncharted territory for emissions trading and unit transfers
    - Addressing double counting of emission reductions under UNFCCC
    - Potential for International Offsets to Provide a Net Decrease of GHG Emissions