



Networked Carbon Markets

IETA/IEA/EPRI 14th Annual GHG Trading Workshop

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Connecting carbon pricing systems

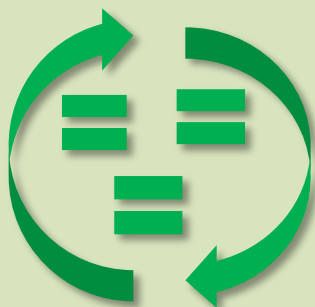
| Form of connectivity | | Definition |
|----------------------|----------|---|
| Linking | Full | Compliance unit in one jurisdiction is accepted without restriction in the “linked” jurisdiction |
| | Limited | Compliance unit in one jurisdiction is accepted with qualitative/quantitative restrictions in the “linked” jurisdiction |
| | Indirect | Markets are not linked directly, but have access to the same third carbon market. |
| Networking | | Fungibility of carbon assets across schemes facilitated by risk-based assessment and discounting. |



An enabling framework for linking

Full harmonization is not necessary to make linking possible

Some design features must be compatible to facilitate linking disparate E.T.S. jurisdictions

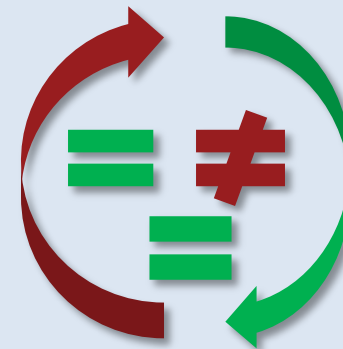


“Must have” mutual design compatibilities

- Nature of the cap (e.g. fixed, dynamic, etc.)
- Cost-containment mechanisms
- Time-flexibility measures
- Robust monitoring, reporting & verification systems

“Desirable to have” mutual design compatibilities

- Coverage and scope
- Point of obligation (i.e. upstream or downstream)
- Method of allocation (i.e. gratis vs auctioning)
- Compatible registry systems
- Fungibility of GHG units (i.e. interchangeability of allowances and offsets in different jurisdictions)
- Compliance periods



Networked Carbon Markets: An enabling framework for enhancing transparency, comparability and fungibility of heterogeneous carbon asset classes.



Development of Networked Carbon Markets Initiative

Launch:

- The World Bank created a Task Force in March 2013 with the objective of catalyzing big, bold action in four key areas.
- One focus area was an idea for Networked Carbon Markets (NCM).



Current status:

- NCM has held extensive stakeholder consultations which have included two international Working Group meetings (September 2013, February 2014).
- NCM now benefits from its re-positioning within the World Bank's Carbon and Climate Finance Unit, within the Climate Change Vice President's Unit.



Key components of NCM

1

Independent system and independent agencies applying a risk-based approach to determine the climate change mitigation value of carbon assets in the international market.

2

International Carbon Asset Reserve to provide market making function; help in addressing market risks and failures.

3

International Settlement Platform to track cross-border trades and possible clearing house function.



Principles underpinning Networked Carbon Markets



1. “Opt-in” approach: jurisdictions participate if they see value



2. Respect Sovereignty: facilitate the most efficient trading up to the level that each jurisdiction chooses to engage



3. Compatible with UN process



4. Encourage participation: learning by doing, and race to the top



5. Private sector friendly



6. Environmental integrity



Fundamental assumptions

- Carbon pricing systems are developing heterogeneously both between countries and within them
- In the absence of homogenous carbon pricing systems, fungibility and comparability of heterogeneous assets is desirable
- There is merit in preparing for a scenario where fungibility or comparability across FVAs is required in the agreement reached in Dec 2015
- Fungibility involves determination of climate change mitigation value of carbon asset classes



Determining climate change mitigation value – risk based approach

Approaches to determining climate change mitigation value can be structured around the risks that they seek to address. These risk components include:

- Program-level ‘carbon integrity risk’
- Jurisdictional-level ‘policy/regulatory risk’
- Global-level ‘contribution to addressing climate risk’

Relative Climate Change Mitigation Value

= f {program risk, policy/regulatory risk, relative GHG contribution}



Program level / carbon integrity risk

- Addresses the question“ what is the risk that the program will not achieve its stated reduction target?”
- Possible programs: regulatory instruments, price instruments and quantity instruments
- Considerations: baseline, crediting threshold, monitoring, reporting and verification frameworks.
- Challenge: establish an approach that can accommodate the wide range of new and heterogeneous low-carbon programs that are now emerging. Especially those the highest sustainable development potential or those which contribute most to transformational change (e.g., activities with high co-benefits).
- Example of an effort that considers carbon integrity risk for a wide range of low-carbon programs is the ‘Mitigation Assessment Protocol’, developed by DNV GL.



Jurisdiction level / policy & regulatory risk

- Addresses the question “what is the risk that the jurisdiction will not meet its stated mitigation target?”
- Considerations:
 - Technical considerations, such as the extent to which the set of policies designed to achieve the mitigation target within the existing policy context are likely to achieve the intended outcome
 - Political considerations, such as the extent to which the government have the political will, track-record, and institutional strength to maintain or adjust policies to achieve appropriate mitigation targets
- An example of an effort that considers policy/regulatory risk is the Climate Action Tracker project, developed by Ecofys, Climate Analytics and the Potsdam Institute for Climate Impact Research (PIK).



Global-level 'relative GHG contribution'

- Addresses: the extent to which a jurisdiction's GHG mitigation target is perceived as a sufficient contribution to the global effort to limit global warming
- An example of an effort that consider relative GHG contribution:
 - Stockholm Environment Institute Climate Equity Reference Calculator
 - Sustainable Development Solutions Network and the Institute for Sustainable Development and International Relations are leading a global effort on 'Pathways to Deep Decarbonization' which establishes a benchmark for ambitious action against which major emitters could be compared.



Who would use the Information in the context of networked carbon markets

- **Bilateral Markets:**
 - **Investors:** could help direct investment to most successful low carbon opportunities
 - **Domestic regulators:** to make decisions on whether or not certain assets could be used for compliance – either by regulated entities or by governments making up a gap – ad hoc, bi-lateral;
- **Networked carbon markets:**
 - **Participants opting into Networked Carbon Markets** approach: relative climate change mitigation value to be used as the basis of exchange rates across different assets necessary for networking across multiple jurisdictions.



Who would use the Information outside of 'markets'

- **Program- level 'carbon integrity risk':**
 - Investors: guide the flow of financing to programs with strong prospects ex-ante;
 - Development aid: to guide / attract non-market support
- **Jurisdiction level 'policy/regulatory risk':**
 - Civil society
 - investors: is there a stable outlook for low carbon policy;
 - International negotiators: input beyond effectiveness of current policy portfolios - outlook for political and economic factors
 - Sellers: could signal the prospect of new demand
- **GHG Mitigation contribution:**
 - Civil society
 - investors in any sector (not only low carbon): is the economy robust against a "carbon shock"?
 - Could impact overall sovereign risk rating and attractiveness of a country as an investment destination in general.



International Carbon Asset Reserve

International Carbon Asset Reserve could provide functions that help manage certain market risks and market failures, in conjunction with jurisdiction-level mechanisms:

- Provide a source of liquidity and a liquidity and shared high price buffer;
- Provide a back-up for domestic reserves in some of the larger markets;
- Provide a market maker function might be of interest to jurisdictions intending to focus on offset assets.



Why jurisdictions might choose to opt-in to the ICAR

- Gives their **private sector access to greater market opportunities** (“selling countries”)
- **Attracts financing** that otherwise would not flow (“buying countries”)
- **Addresses consumer concerns** that carbon price could go too high (“selling countries”)
- **Access to reserve functions** (“buying and selling countries”)



Next steps

Work planned to December 2015 includes:

1. Continuing to convene stakeholders (public and private sector)
2. An analytical work program focused on designing methodologies, implementing case studies and developing knowledge products to explore potential institutional structures for an ICAR
3. Concept development and revision such that it is positioned for small-scale pilots from January 2016.



Questions?

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