Designing and Implementing Domestic Carbon Crediting Mechanisms
Carbon Crediting - Overview

- Creates a supply of **tradable credits** for each unit of verified emissions reduction or removal.
- Are **complementary** and need a source of demand for credits to have value. For example, from:
  - a tax or an ETS (e.g., reduce compliance costs by accessing abatement in uncovered sectors)
  - results-based finance (as basis for recognizing climate benefits)
  - corporations for voluntary purposes.
- Useful in sectors, activities, or regions where there are barriers to direct ETS/tax coverage.

But additional challenges with achieving environmental integrity

**Additionality**
- Reductions would not have occurred on their own.

**Permanence**
- Safeguards can help protect against future reversals

‘**Double counting**’
- Reductions cannot be used by more than one person
More detail in the crediting guide
Why use crediting?

- Reduce emissions / help achieve climate targets
- Reduce compliance costs
- Broader benefits beyond mitigation
- Mobilize carbon finance
What is Carbon Crediting?

Crediting values the emissions reduction, rather than pricing emissions.

Implementation of emission reduction project

Emission reduction project
Methane captured and combusted to generate electricity

Issuance of carbon credits

Carbon credits generation
Creation of carbon credits equal to the emissions reduced in metric tons of CO₂

Carbon credits can be sold as offsets or to determine results-based climate finance payments, for instance.
Carbon crediting markets

- COP26 Article 6 rulebook major milestone and improves certainty
  - Creates path for contributions to NDC goals
- Market fragmentation will likely continue
Carbon crediting activity: trends differing across categories

Global Volume of Issuances by Crediting Mechanism Type (2018–2022)

- International
- Independent
- Domestic

- Clean Development Mechanism (32%)
- Climate Action Reserve (2.5%)
- American Carbon Registry (4.6%)
- Gold Standard (8.2%)
- Plan Vivo (0.4%)
- Verified Carbon Standard (42%)
- Thailand Voluntary Emission Reduction Program (0.9%)
- California Compliance Offset Program (2.4%)
- Australia Emissions Reduction Fund (3.7%)
- British Columbia Offset Program (1%)
- Alberta Emission Offset Program (1.3%)
Trends for carbon credit prices varied but generally declined.

Prices of Standardized Carbon Credit Contracts 2021–2023

Average Carbon Credit Price USD/tCO₂e

- Removals
- Avoidance
- Renewable Energy
- CORSIA Eligible
- Nature Based
Crediting in the policy mix

Increase mitigation in activities and sectors not covered

Reduce cost of compliance

Avoid coverage overlap

Needs external source of demand

Policymakers should avoid creating situations where emissions reductions under one program, like an emissions trading system, can also be eligible for carbon credits.
To be effective, crediting mechanisms should only credit projects that are high integrity, underpinned by robust governance, and support sustainable development.
Balancing priorities

Trade-offs between key design criteria

Balance competing criteria

Low transaction costs

Minimal administrative burden

High environmental integrity
Offset use in ETSs around the world


South Africa and Colombia companies use credits to satisfy carbon tax obligations

Singapore to allow offsets in carbon tax from 2024
### Offset use in Carbon Taxes around the world

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Sectors covered</th>
<th>National GHG coverage</th>
<th>Use of revenues</th>
<th>Offsets allowed</th>
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<td>Transport</td>
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</tbody>
</table>

Note: Although electricity is exempt from the current phase of the South Africa carbon tax, the 80% coverage value includes electricity generation.

Source: International Monetary Fund. 2023.; various (see below).
Using elements of existing crediting mechanisms

- Chile, Colombia, Mexico, South Africa
- CORSIA
- California, Japan JCM
- Alberta, Australia, China, Korea

**FULL RELIANCE**
Use credits from existing crediting mechanisms

**GATEKEEPING**
Conditionally use credits from existing crediting mechanisms

**OUTSOURCING**
Issue own credits but outsource certain functions

**INDIRECT RELIANCE**
Issue own credits and replicate design elements/functions
Governance and supporting systems – key elements

Monitoring, reporting and verification
- Methodology development
- Project registration, validation and verification
- Compliance and enforcement

Registry infrastructure and administration
- Credit issuances
- Transfers and acquittal/retirement
- Information publication

Governance
- Policy authority and oversight
- Rulemaking
- Implementation
Governance functions

**POLICY AUTHORITY & OVERSIGHT FUNCTIONS**
- Agree on scope sectors, technologies, project types, methodologies
- Agree on use of elements of existing crediting mechanisms
- Allocate all other functions

**RULEMAKING FUNCTIONS**
- Approve methodologies, technical standards, and guidelines
- Approve accreditation rules for independent auditors
- Review implementation decisions, if appropriate
- Address grievances and appeals

**IMPLEMENTATION FUNCTIONS**
- Accredit auditors to carry out validation and verification
- Review and register eligible projects
- Certify and issue emission reduction units
- Maintain a registry of projects and emission reductions and international links

**TECHNICAL ADVISORY FUNCTIONS**
- Review international methodologies, technical guidelines, default factors
- Oversee development of new methodologies, technical guidelines, default factors by third parties
- Develop new (top-down) methodologies

Source: Adapted from Spalding-Fecher et al. 2017, 2018.
THANK YOU