Designing and Implementing Domestic Carbon Crediting Mechanisms

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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.

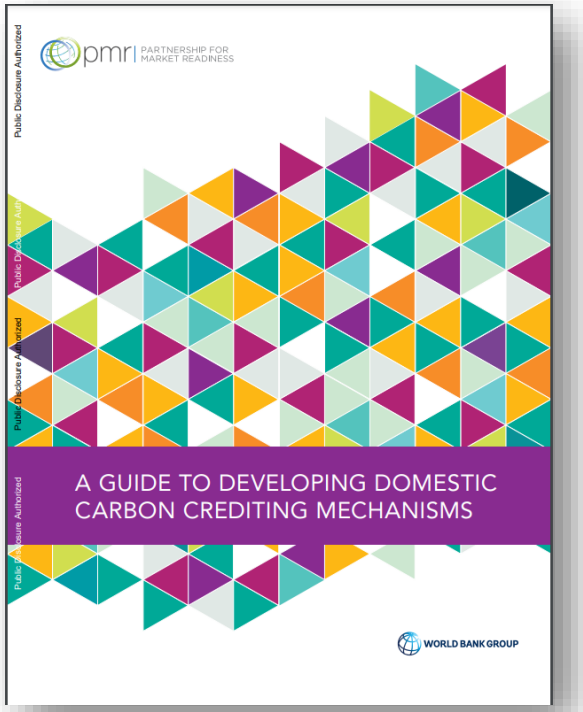
But additional challenges with achieving environmental integrity

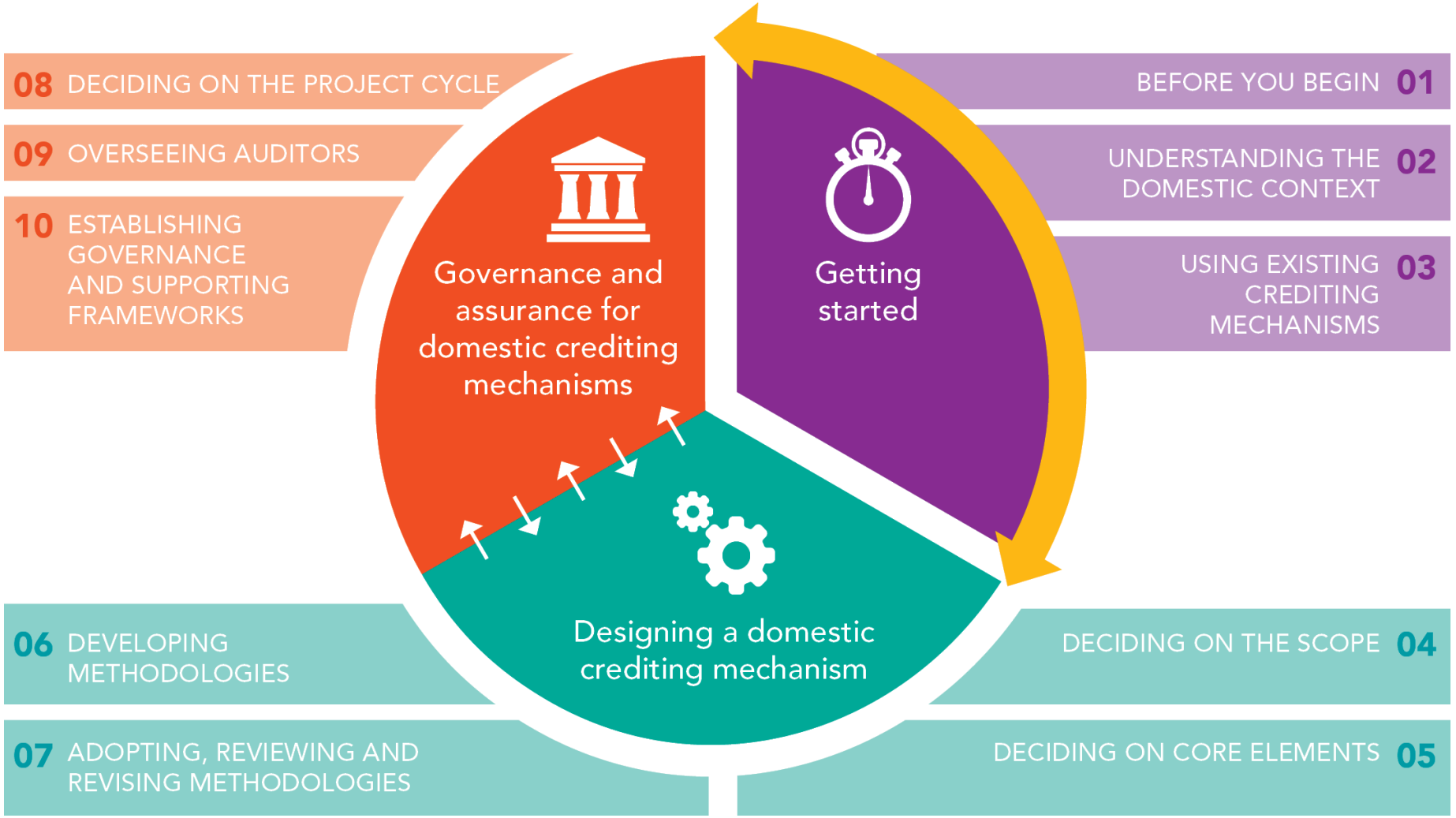
Additionality
Reductions would not have occurred on their own.

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





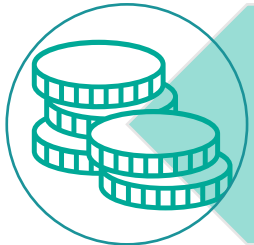
A Guide to Developing Domestic Carbon Crediting Mechanisms: https://openknowledge.worldbank.org/handle/10986/35271

Why use crediting?

Reduce emissions / help achieve climate targets

Reduce compliance costs

Broader benefits beyond mitigation

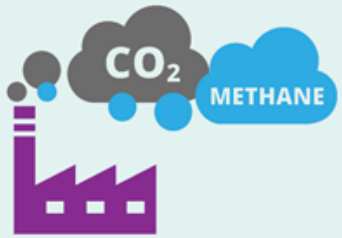


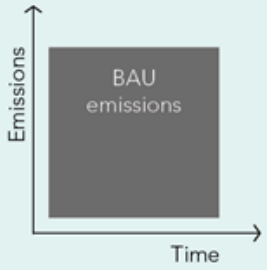
Mobilize carbon finance

What is Carbon Crediting?

Business as usual (BAU)

Wastewater plant; methane is being vented

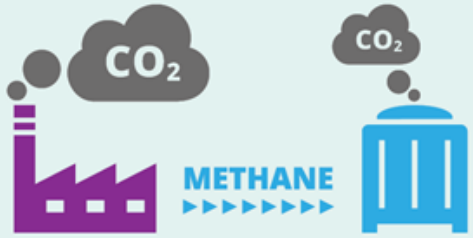




Implementation of emission reduction project

Emission reduction project

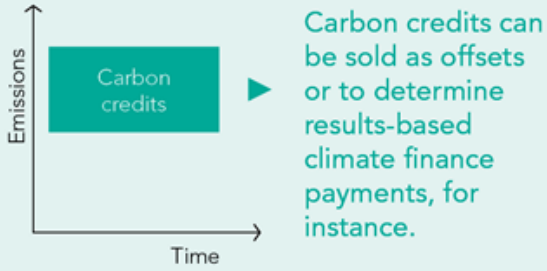
Methane captured and combusted to generate electricity



Issuance of carbon credits

Carbon credits generation

Creation of carbon credits equal to the emissions reduced in metric tons of CO_2

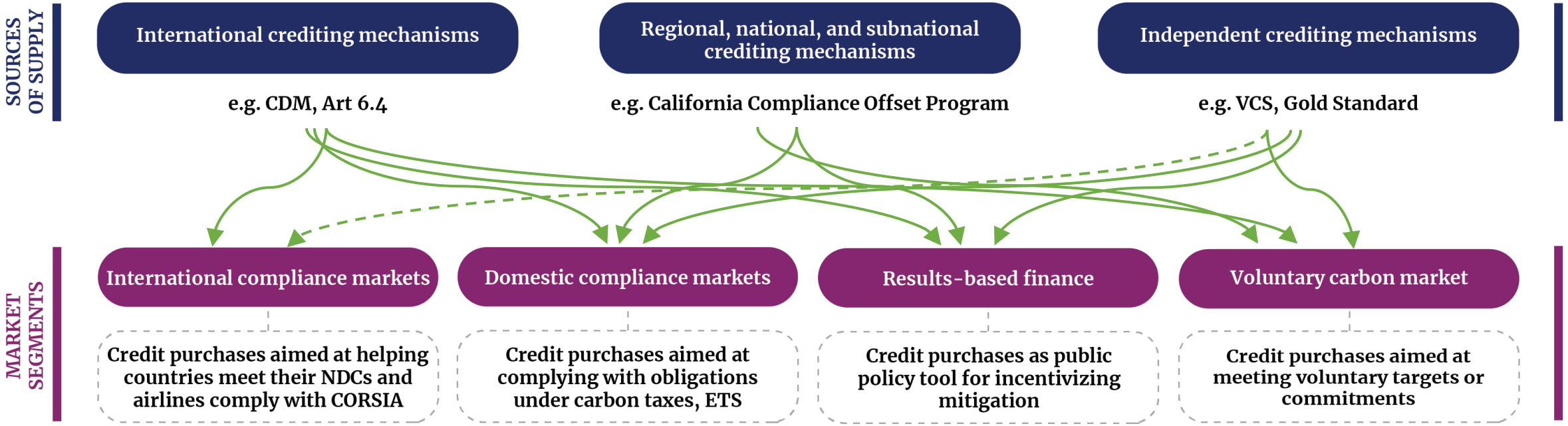


Source: World Bank 2020.

Crediting values the **emissions reduction**, rather than pricing emissions.

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

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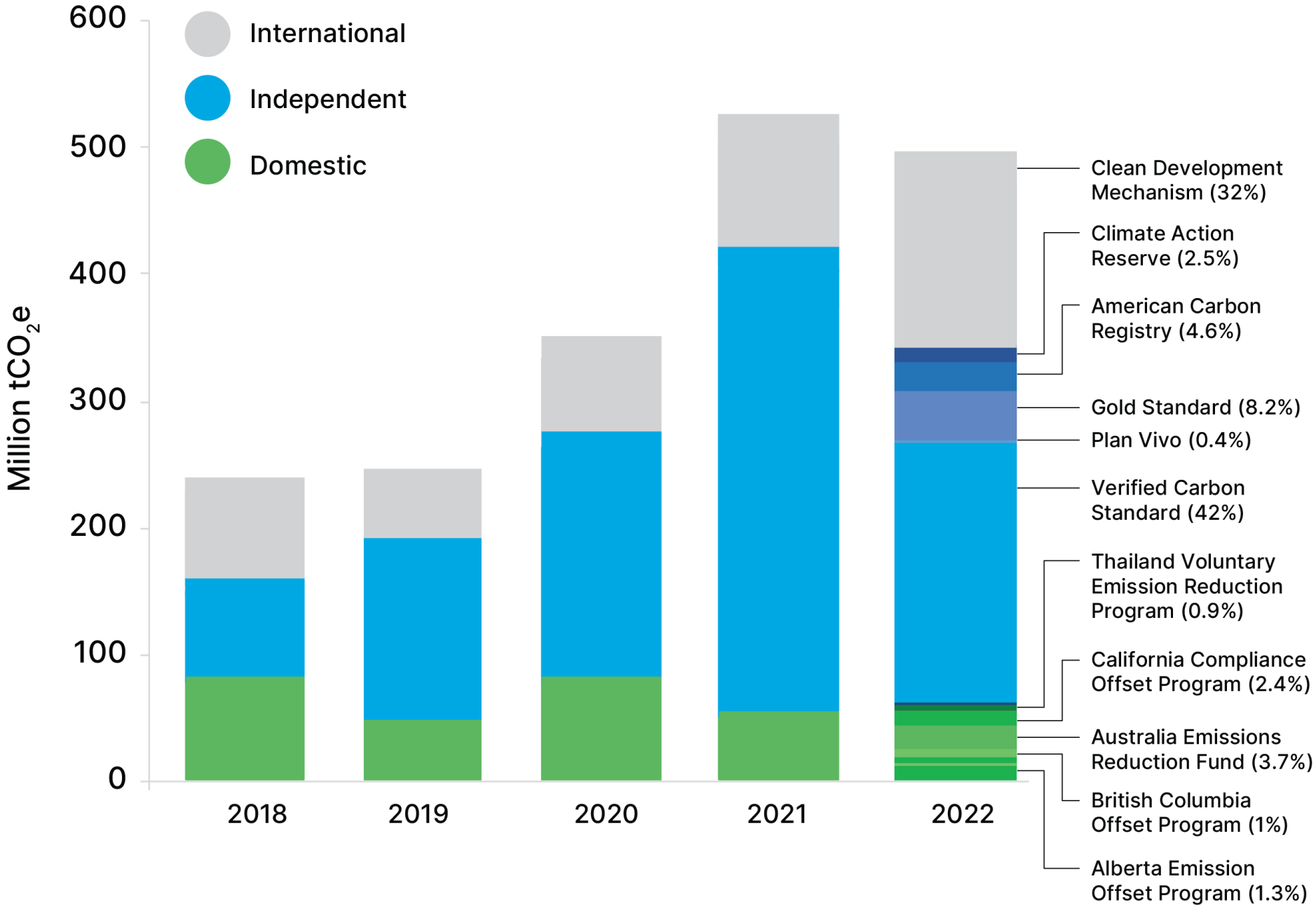
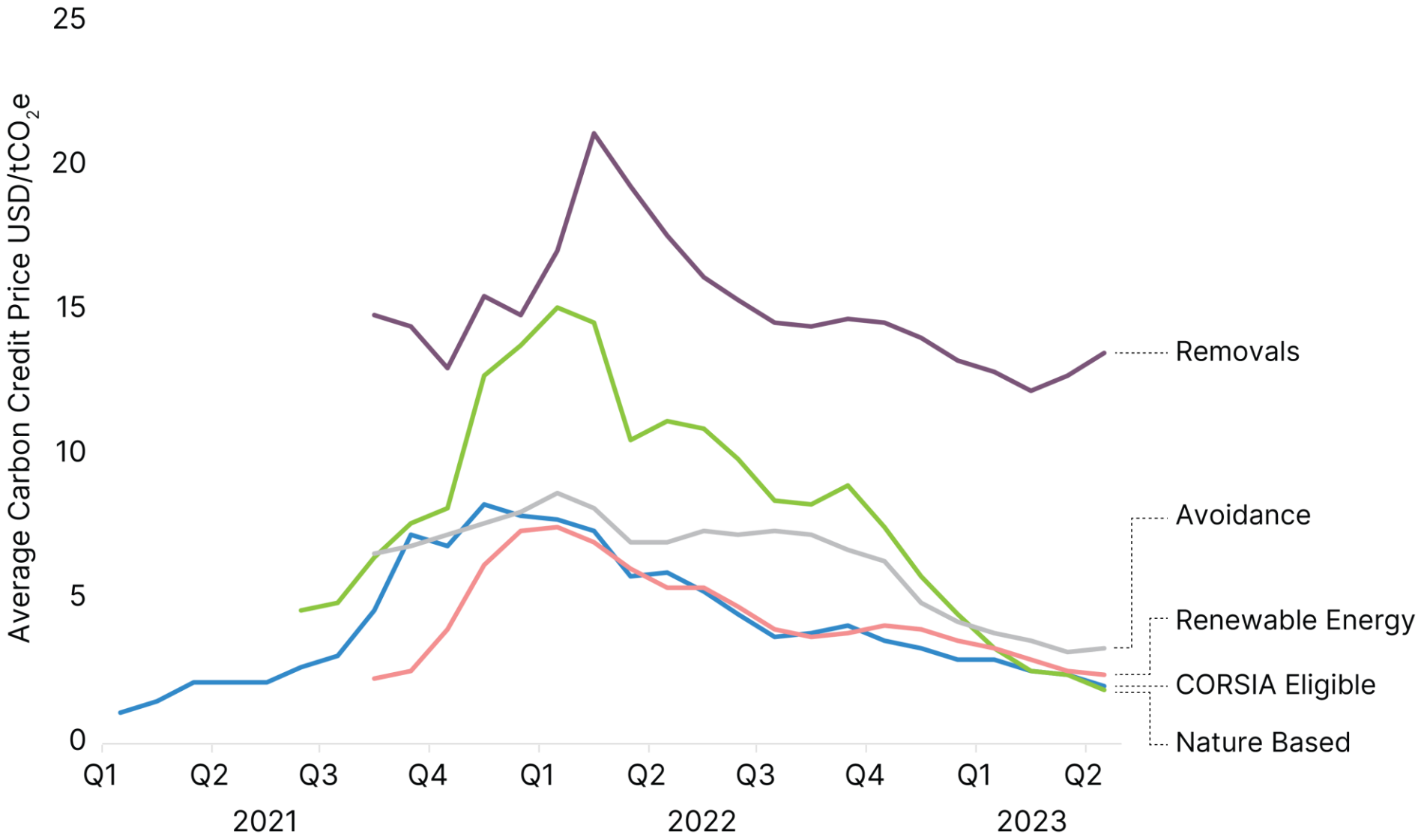
Global Volume of Issuances by Crediting Mechanism Type (2018–2022)



Trends for carbon credit prices varied but generally declined

Prices of Standardized Carbon Credit Contracts 2021-2023



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Crediting in the policy mix

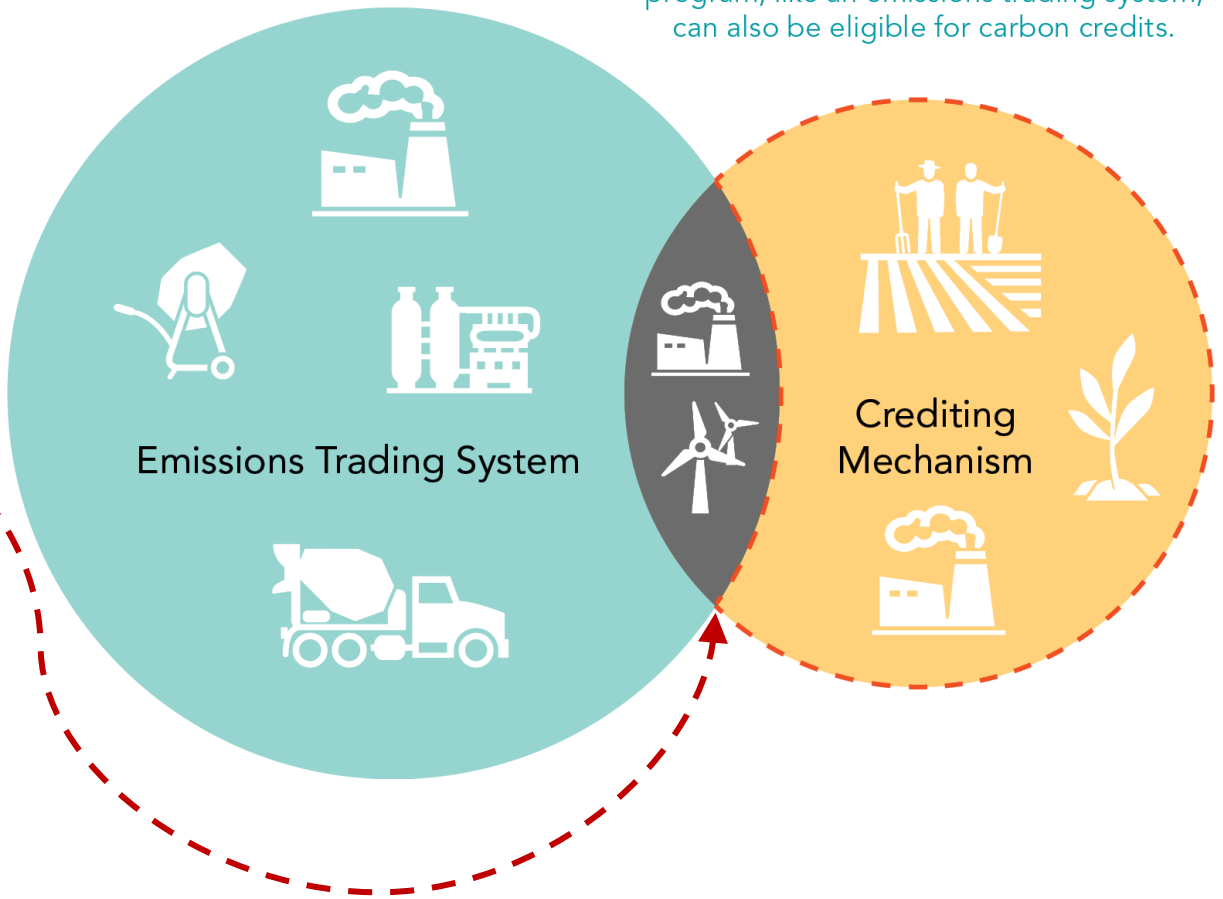
Increase mitigation in activities and sectors not covered

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.



Promoting environmental integrity

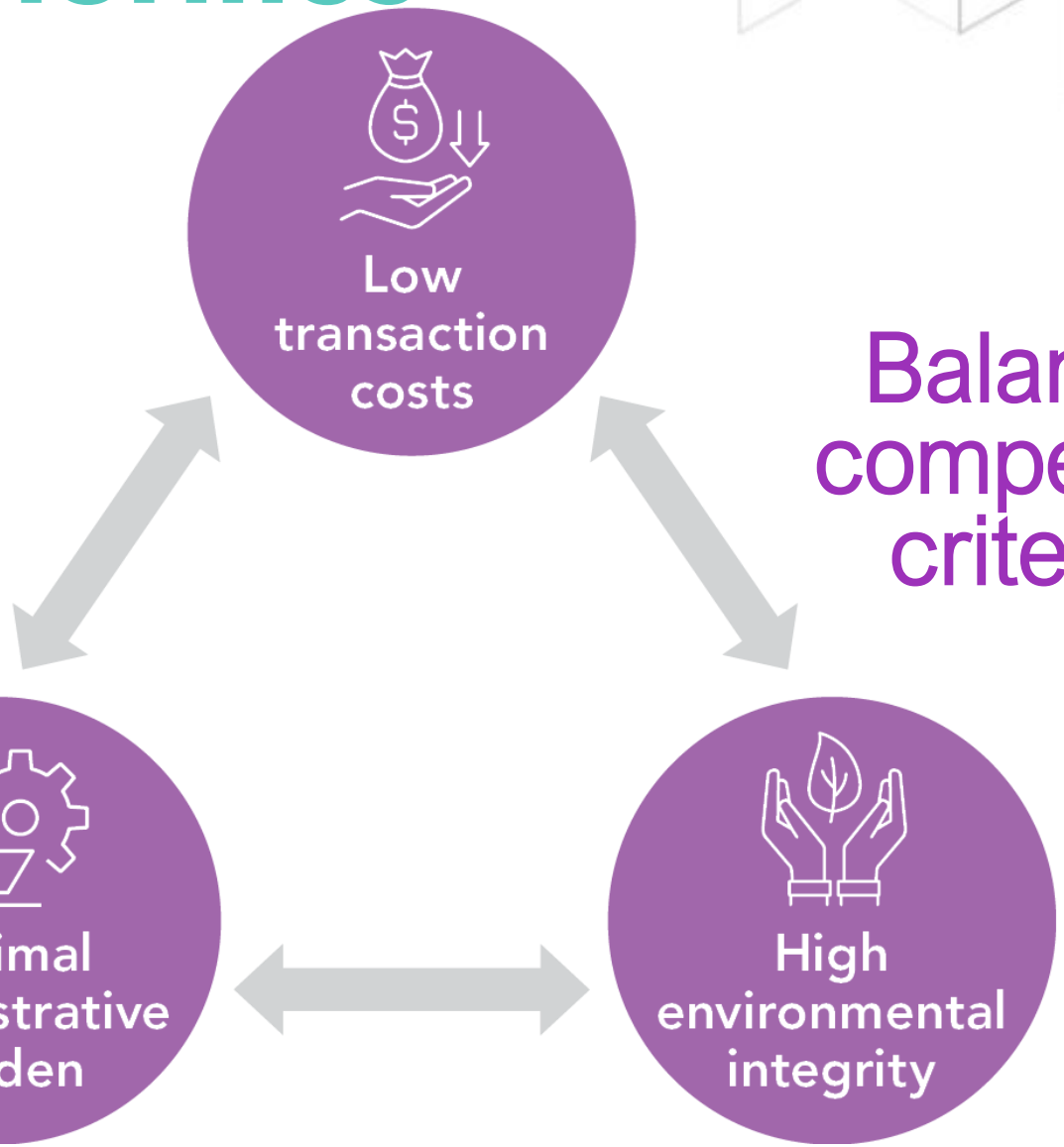
To be ***effective***, crediting mechanisms should only credit projects that are ***high integrity***, underpinned by ***robust governance***, and support ***sustainable development***

Source: ICVCM (2023). The Core Carbon Principles

Balancing priorities

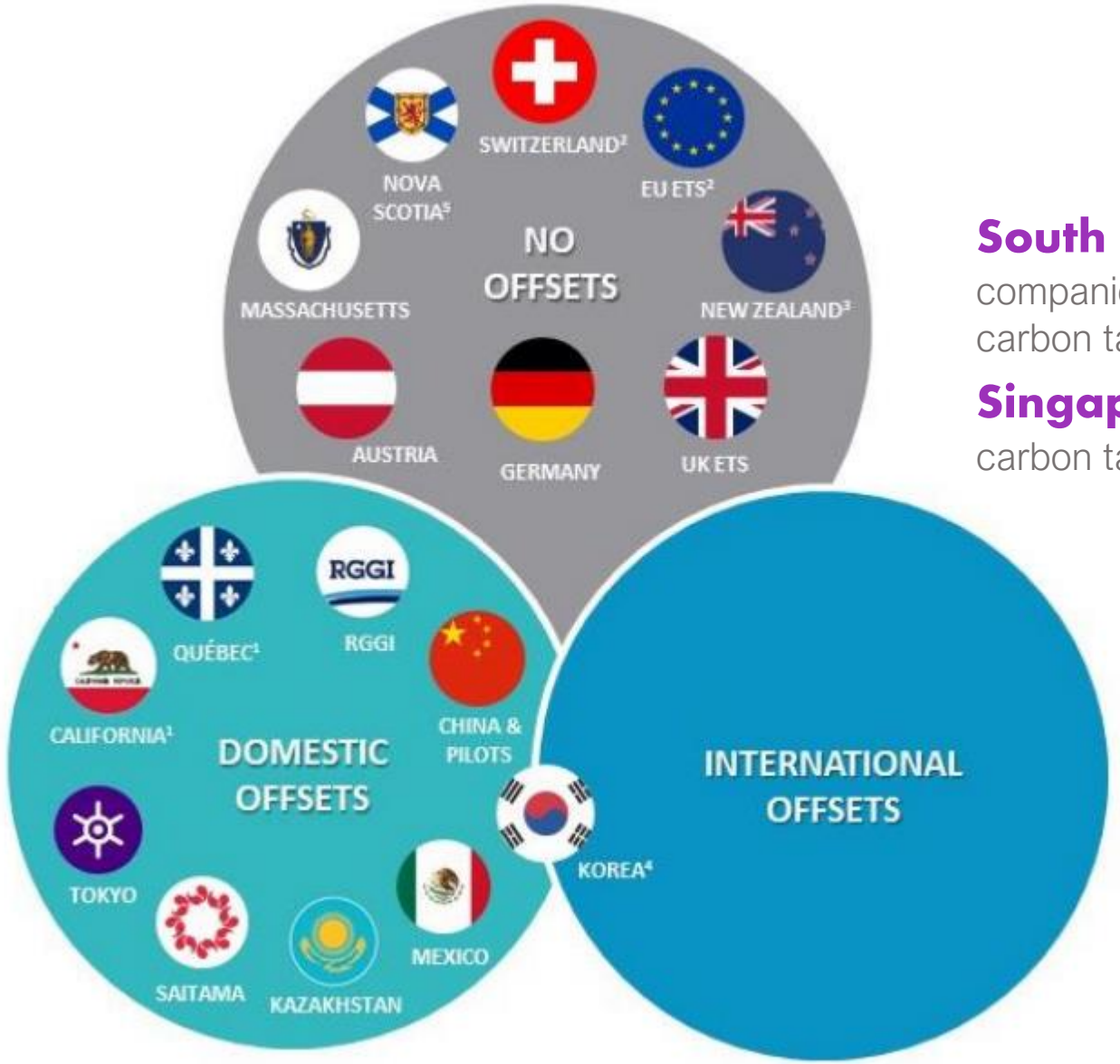
Trade-offs

between key design criteria



Balance competing criteria

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

Source: ICAP (2023). Offset Use Across Emissions Trading Systems

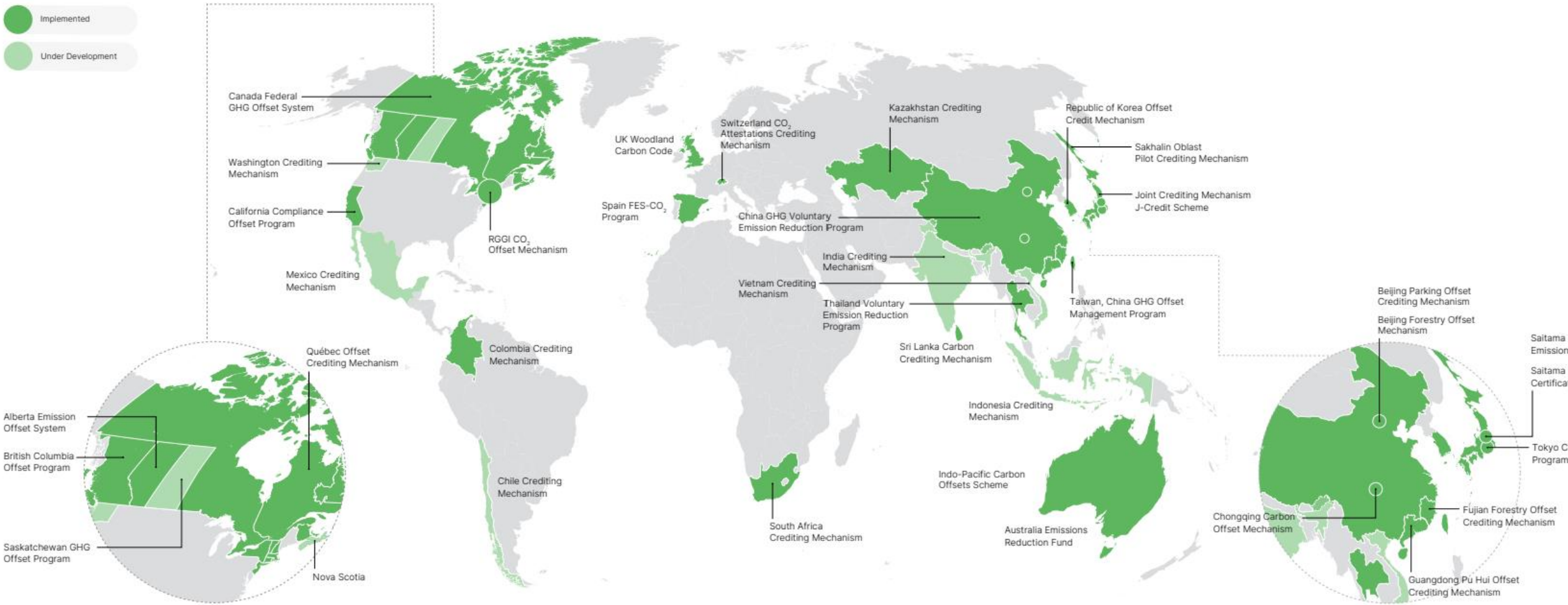
Offset use in Carbon Taxes around the world

Country	Year	Sectors covered				National GHG coverage	Use of revenues	Offsets allowed
		Power	Industry	Transport	Buildings			
Chile	2017	✔	✔			38%	General budget	100%
Colombia	2017	✔	✔	✔	✔	27%	Environment spending	100%
South Africa	2019	✔	✔	✔	✔	80%	General budget	5-10%
Singapore	2019	✔	✔			80%	General budget	5% from 2024
Indonesia	Deferred	✔				26%	General budget	Planned
United Kingdom	2013	✔	✔			49%	General budget; tax cuts	None

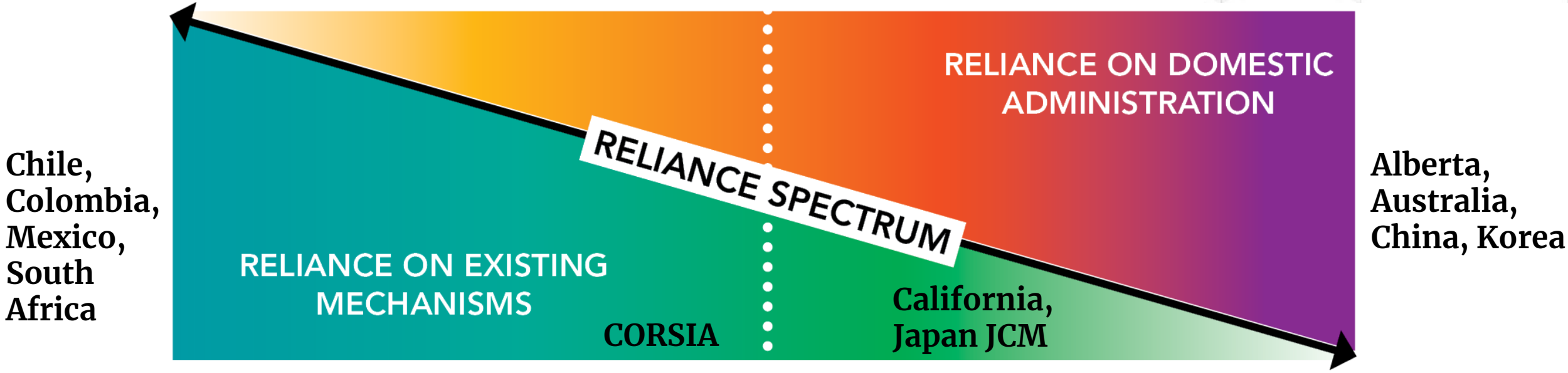
Note: Although electricity is exempt from the current phase of the South Africa carbon tax, the 80% coverage value includes electricity generation

Source: International Monetary Fund. 2023.; various (see below).

FIGURE 12
MAP OF NATIONAL AND SUBNATIONAL CREDITING MECHANISMS



Using elements of existing crediting mechanisms



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