Emission Trading System

Opportunities for Developing Member Countries of ADB

Webinar on Carbon Pricing and Fossil Fuel Subsidies Reduction, Asian Development Bank, Manila

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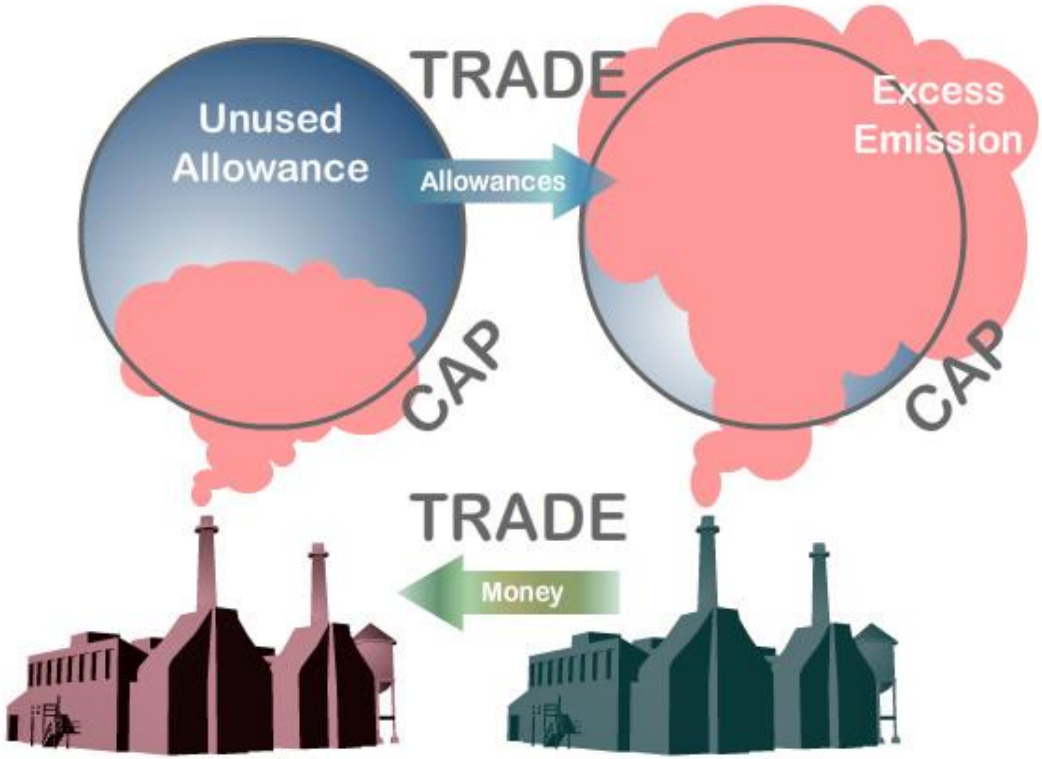
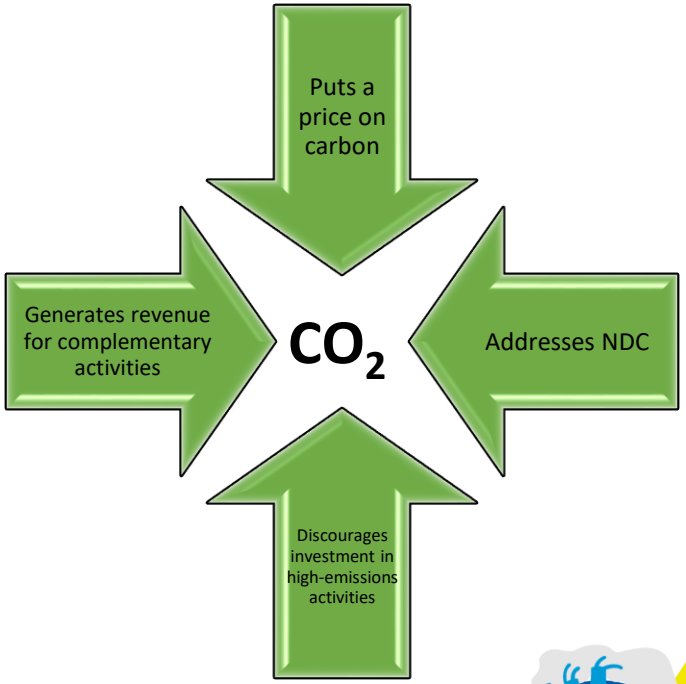
Topics

- What is an ETS?
- Global Status
- ETS or Tax (Plus FF Reform)
- International Obligations
- Legal Framework
- Planning an ETS (10 Steps)
- Challenges
- Resources

Image Source: hhttps://climatechange.novascotia.ca/nova-scotias-cap-trade-program

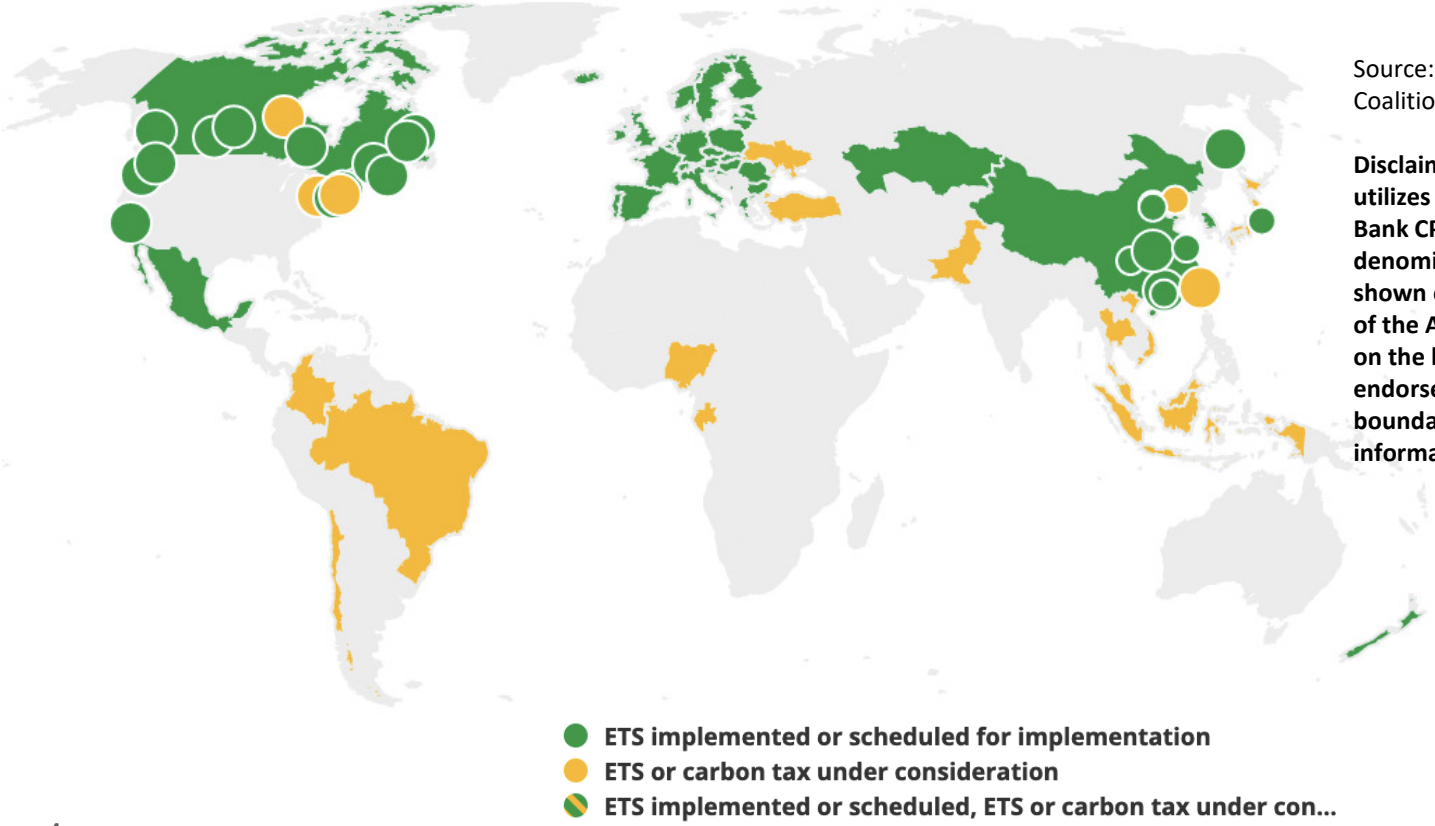
Choosing an ETS





Source: Legal Planet

ETs Global Coverage (December 2022)



Source: World Bank Carbon Price Leadership Coalition (World Bank CPLC)

Disclaimer: All data provided on this image utilizes information as published by the World Bank CPLC. The boundaries, colors, denominations, and any other information shown on this map do not imply, on the part of the Asian Development Bank, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries, colors, denominations, or information.

How does an ETS compare to other tools?

	Advantages	Disadvantages
Emissions Trading Systems	+ Sets a firm cap on emissions + Defines clear emissions reduction trajectory + Encourages innovation by high emitters + Creates ability to link within and across borders + Is countercyclical + Generates additional revenue	– Price fluctuates with market – Requires new system – Impact on emissions uncertain
Carbon Taxes	+ Creates a stable price for carbon emissions + Utilizes existing tax infrastructure + Generates additional government revenue	– Can cause short-term macroeconomic shocks
Fossil Fuel Subsidy Reform	+ Frees funds for climate and other priorities	– Results in high fuel prices can negatively impact lower socio-economic groups

Based on ADB (2016), ICAP Briefs

International Obligations, Paris Accords

DMC Intentions to use Market Mechanisms*

Group 1	Group 2	Group 3
YES OR MAY CONSIDER	NOT CLEAR	NO
Afghanistan	Azerbaijan	Malaysia
Armenia	Cook Islands	Marshall Islands
Bangladesh	Georgia	Micronesia, Federated States of
Bhutan	Kyrgyz Republic	Palau
Cambodia	Maldives	Tuvalu
China, People's Republic of	Nauru	
Fiji	Niue	
India	Papua New Guinea	
Indonesia	Philippines	
Kazakhstan	Sri Lanka	
Kiribati	Tajikistan	
Lao People's Democratic Republic	Timor-Leste	
Mongolia	Tonga	
Myanmar	Turkmenistan	
Nepal	Uzbekistan	
Pakistan	Vanuatu	
Samoa		
Solomon Islands		
Thailand		
Viet Nam		
TOTAL: 20 countries	**TOTAL: 16 countries**	**TOTAL: 5 countries**

Note: Group 1 comprises 20 DMCs of ADB that expressed their intent or consideration of using market mechanisms in their NDCs. Group 2 consists of 16 DMCs that did not state specifically or were not clear in their NDCs whether they would be using or considering market mechanisms. Group 3 is made up of five DMCs that expressed that they had no intention to use market mechanisms in their NDCs.

- Nationally Determined Contributions
- Article 6

*Based on NDC, Source: Asian Development Bank (2020)

Establishing a Legal Framework

Elements of a Legal Framework

Key Objectives

What is the ETS' role?

Level of Formalization and Centralization

- Add Stability and Legitimacy
- Stakeholder Appeal

Core Institutional Functions

Who is responsible for what?

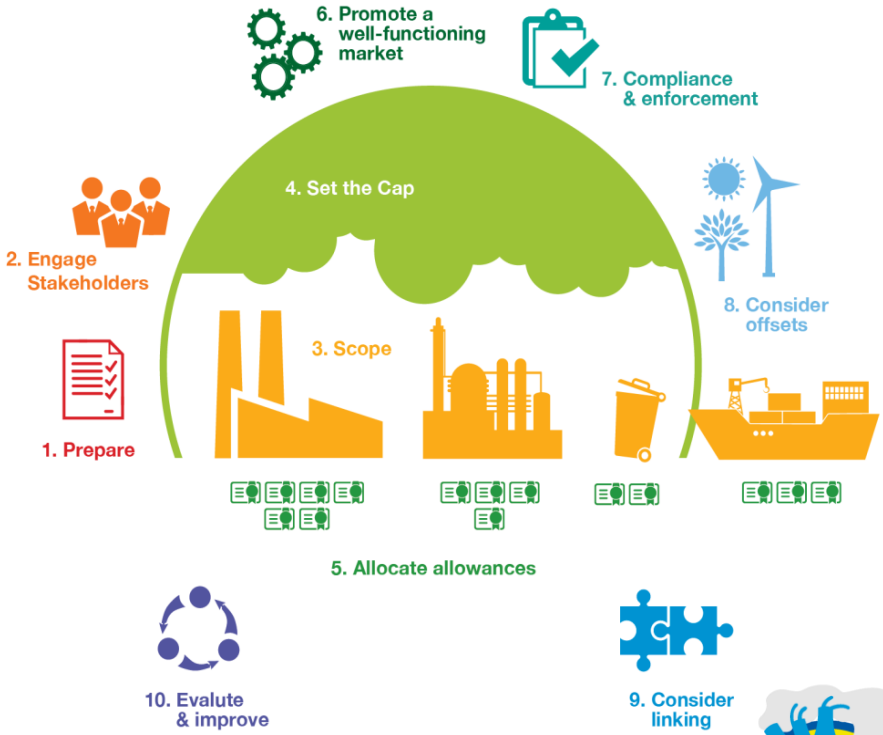
Key Milestones and Timelines

What will be achieved and when?

AMBITIOUS + FEASIBLE = STRONG SIGNAL

Planning the ETS

- Prepare
- Decide the Scope
- Engage Stakeholders, Communicate, and Build Capacity
- Set the Cap and Compliance Period
- Distribute Allowances
- Promote a Well-Functioning Market
- Ensure Compliance and Oversight
- Consider Flexible Mechanisms
- Consider Linking
- Implement, Evaluate, and Improve



Source: ICAP (2021)

Step 1: Prepare

WHO: Regulatory Authority

WHAT: Set Framework for **Measuring and Reporting**

- National Inventory Reports
- Entity Level Reports
- Identify Key Sectors and Sources
- Form Timeline
- Track Progress

GHG Inventory of potentially covered sectors

Image Source: EPA (2022)

Step 2: Decide the Scope

Emission Quantity vs. Participant Number

Broader Range

- Higher Mitigation Potential
- Decreased Cost of MRV
- Market Fluidity

Best Practice:

- Start with Narrow Scope
- Expand with Capacity

Image Source: ICAP (2021)

Step 3: Engage Stakeholders, Communicate, Build Capacity

- Identify Key Stakeholders
- Designate Stakeholder POC
- Increase Transparency
- Secure Approval & Continued Support
- Prepare Stakeholders to Perform Roles
- Avoid Gaps and Issues in Policy

Source: ICAP (2021)

Footnote here

Step 4: Set the Cap and Compliance Period

DATA

- Emission Record

CAP AMBITION:

- Trade-off
- Alignment of Goals and Targets
- Share of Responsibility Between Sectors

CAP TYPE:

- Absolute vs. Intensity

APPROACH:

- Top Down vs. Bottom Up

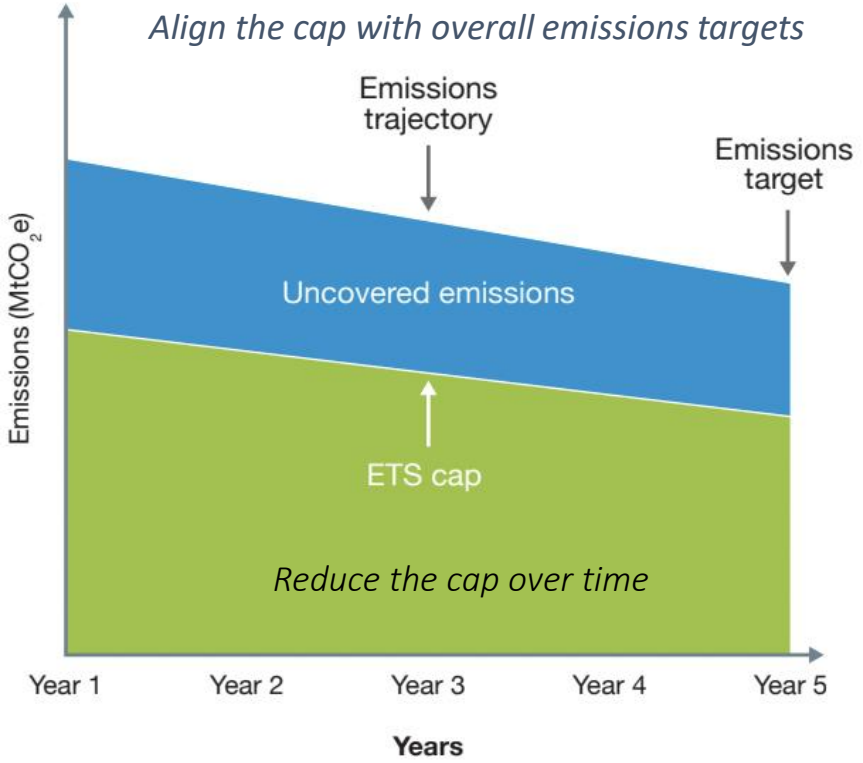
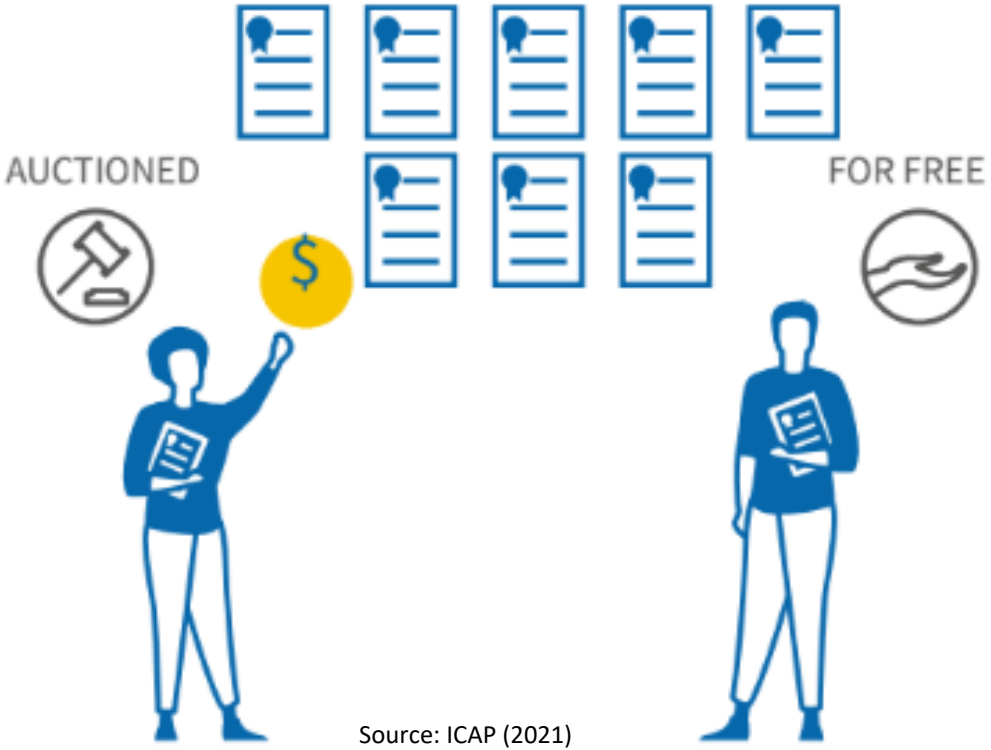


Image source: ICAP (2021)

Step 5: Distribute Allowances



Source: ICAP (2021)

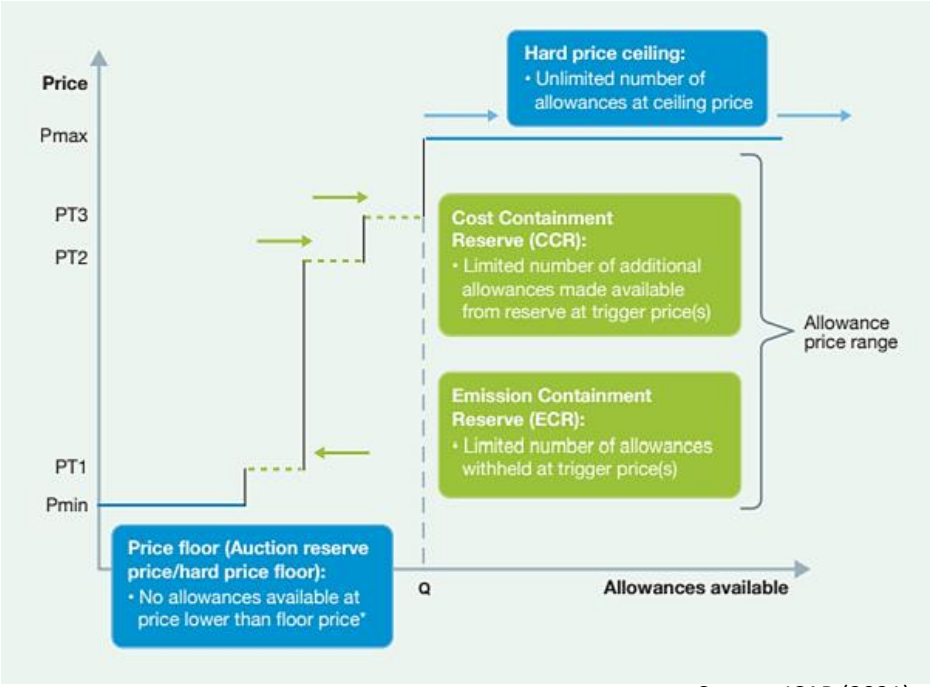
Grandparenting

or

Benchmarking

Step 6: Promote a Well-Functioning Market

The impact of supply adjustment measures



Reserves:

- Cost Containment Reserve
- Emissions Containment Reserve

Source: ICAP (2021)

Step 7: Ensure Compliance and Oversight

Regulatory Body Activities:

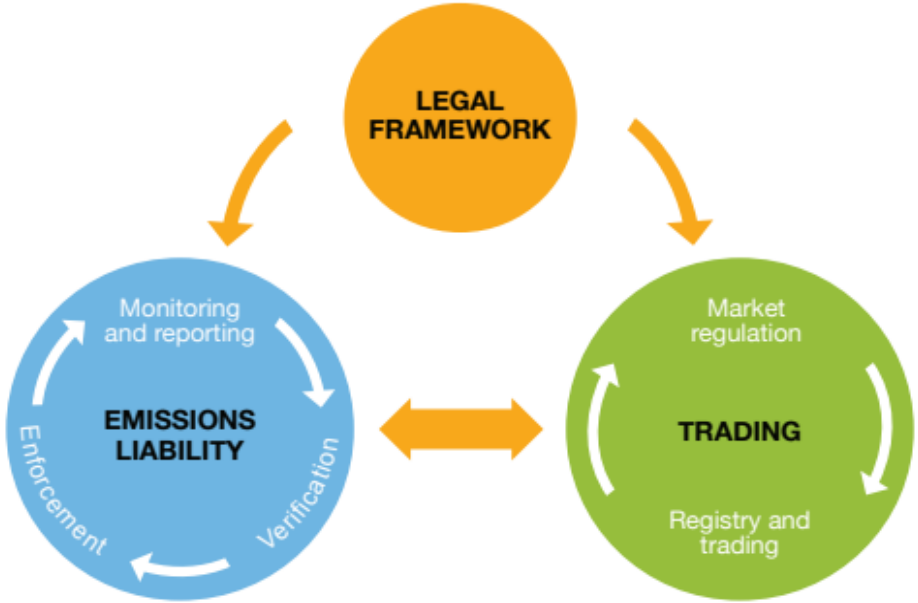
Manage Reporting Methods

Approving Verifiers and Plans

- Third Party Verifiers

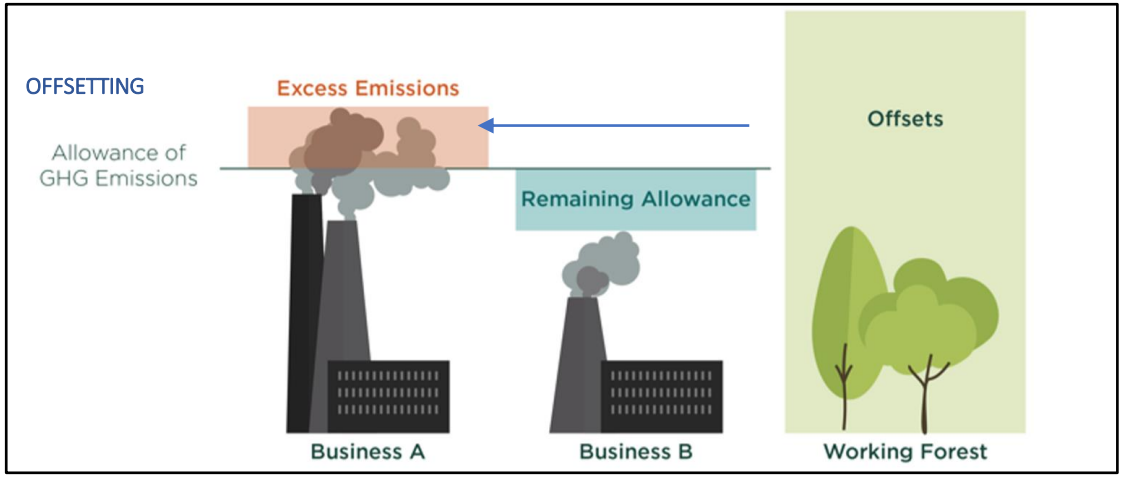
Design and Enforce Penalties

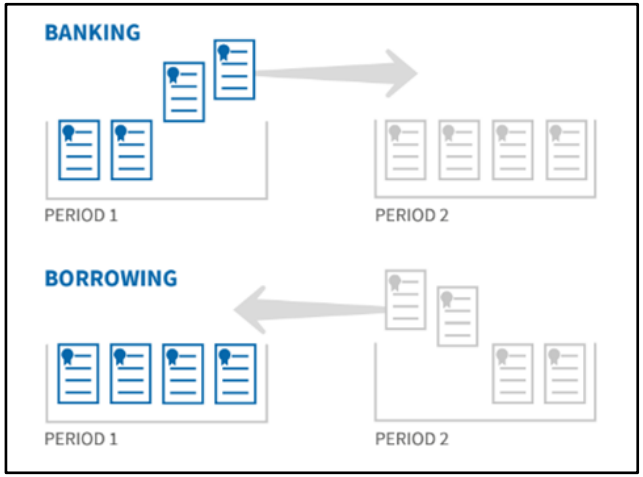
- Financial *vs*. Social



Source: ICAP (2021)

Step 8: Consider Flexible Mechanisms





Purchase of offsets to meet emission allowances is often limited to a small percentage of overall emission reductions.

Source: ICAP (2021)

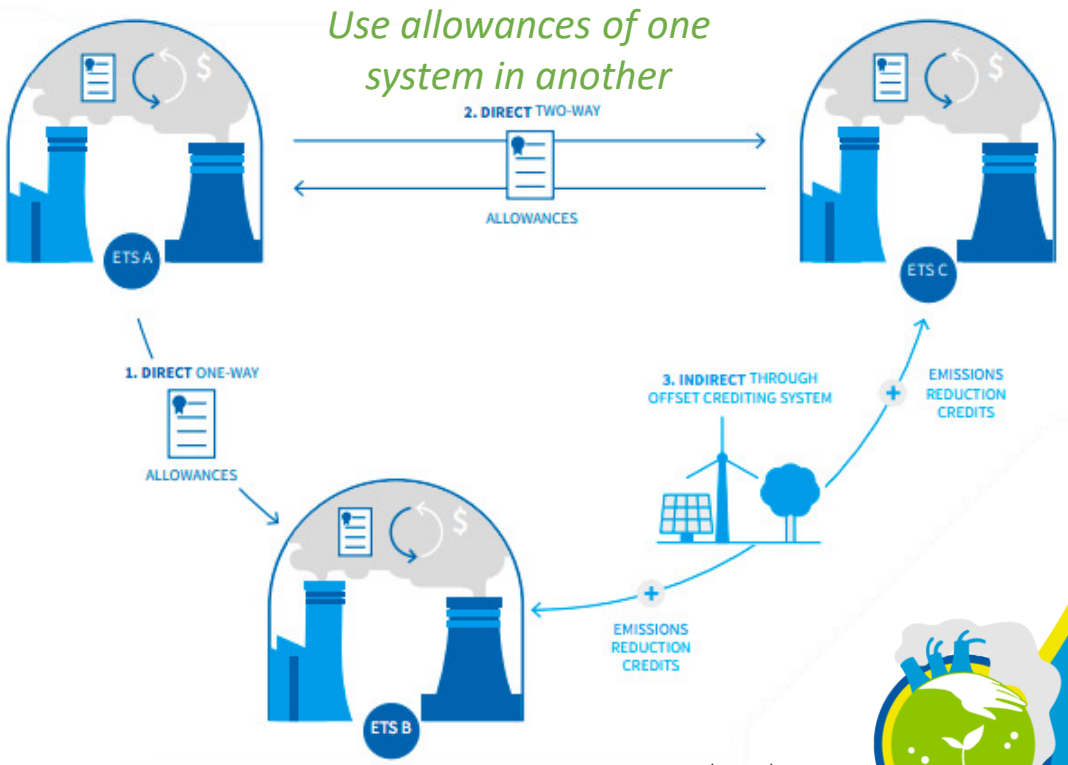
Step 9: Consider Linking

Larger Carbon Market = Increased Fluidity + Increased Price Competition

Knowledge Sharing + International Cooperation

Requires Flexibility

NDC
Article 6
- ITMO
- OMGE



Source: ICAP (2021)

Step 10: Implement, Evaluate, Improve

Implement

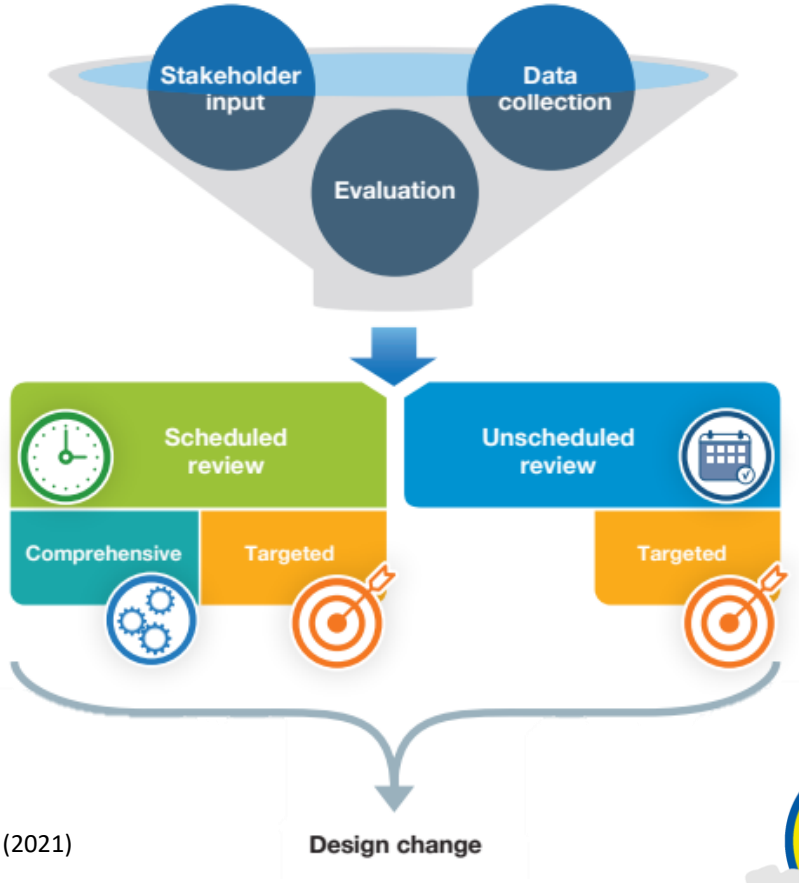
- Phase-In *vs*. Pilots

Evaluation

- Policy Evaluation Metrics
- Ongoing R&D

Improve

- Learning from Others
- New Developments



Source: ICAP (2021)

Resolve Potential Challenges

Impact of companion policies

	Examples	Likely impact on allowance demand and carbon price in an ETS
Complementary improve functioning of carbon markets	• energy market reform (e.g. facilitating cost pass-through) • infrastructure upgrades • energy efficiency labeling • pollution/emissions measurement	↓
Overlapping duplicate incentives in carbon markets	• feed in tariffs • green certificate programs, such as renewable energy targets	↓
Countervailing oppose incentives in carbon markets	• fossil fuel subsidies • industry tax breaks and special treatment	↑

Source: ICAP (2021)

Three sources of carbon leakage

Energy markets
Loss of EU demand makes oil, coal and gas cheaper and more attractive to the rest of the world.

Competition
Due to costs of EU climate policy, industry relocates production, including corresponding carbon emissions.

Free riding
Because of EU climate policy, others see less pressure to act and hence increase their emissions.

Fraud!

Source: MCC (2020)

Questions?

… Online Resources

- Asian Development Bank Carbon Market Program
- Carbon Pricing Leadership Coalition (CPLC)
- International Carbon Action Partnership (ICAP)
- International Emissions Trading Association (IETA)
- International Energy Agency (IEA)
- Partnership for Market Implementation (PMI)

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ADB