



Introduction to carbon pricing instruments

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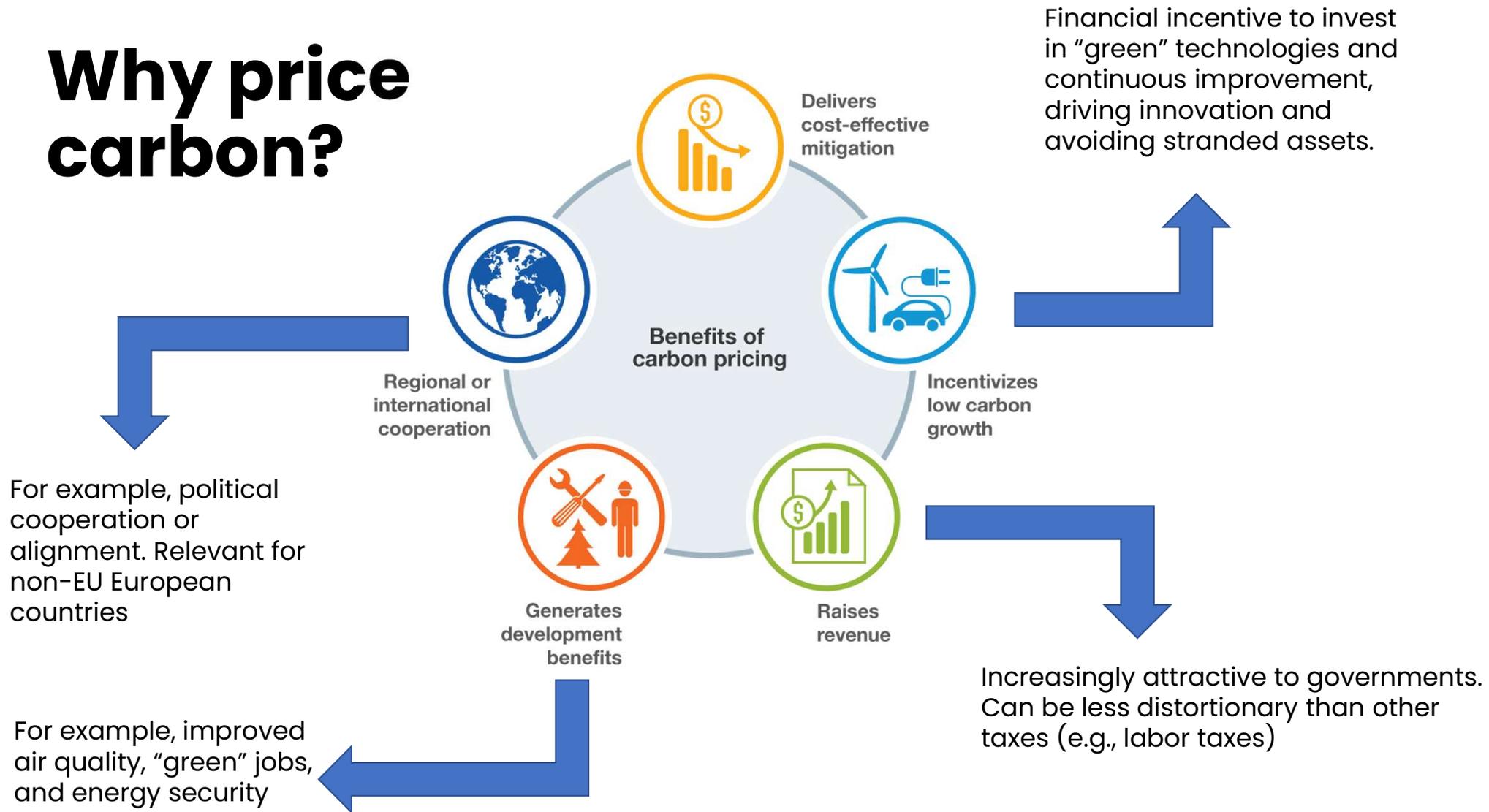
What is carbon pricing?

- Price on GHG emissions (e.g., from combusting fossil fuels) to capture external costs
- Single most cost-effective policy tool to reduce emissions
- Incentivizes changes in investment, production, and consumption patterns
 - Businesses aim to reduce carbon costs
 - Consumers shift toward lower-emissions products due to their relative cost advantage.
- Carbon pricing should be included as part of policy suite.
 - Other policy instruments and investments required to address other barriers and market failures (e.g., public transport infrastructure)

Explicit: Carbon tax, ETS and crediting

Implicit: e.g., fossil fuel subsidy removal or energy taxes (e.g., fuel excise).

Why price carbon?



Explicit carbon pricing instruments



Carbon tax

Places an explicit carbon price on GHG emissions, establishing a direct link between emissions and tax (e.g. based on fuel carbon content).



ETS

Places a cap on the amount of GHG emissions in one or more sectors of the economy. Regulated entities must surrender one allowance for each tonne CO₂ emitted.

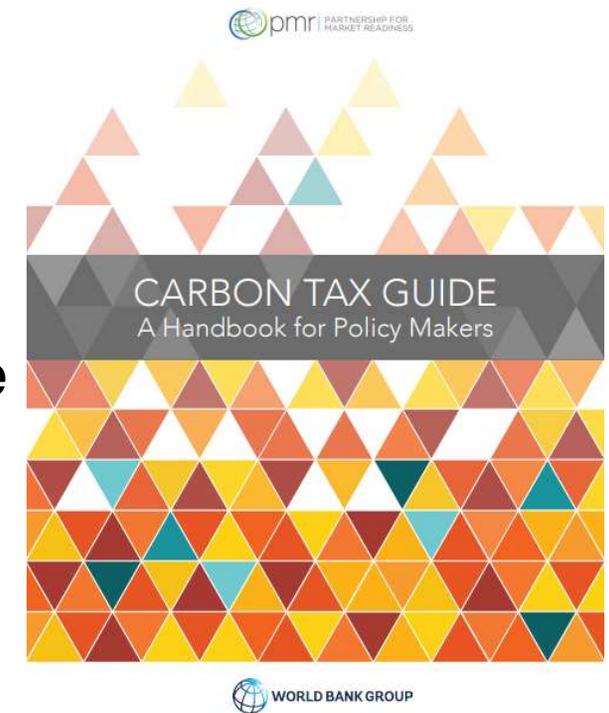


Crediting mechanism

Issues emissions reduction units ('credits') to eligible project activities to recognize quantified emissions reductions that are real, additional, permanent, and below a baseline scenario.

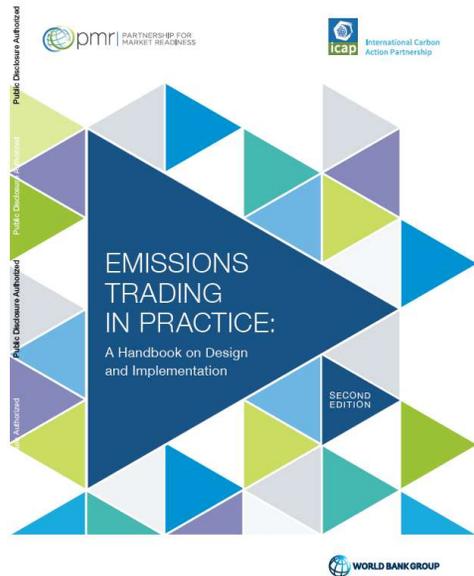
Carbon tax

- The price is set by the government as a rate of tax on GHG emissions, which can increase over time.
- Simplicity advantage—limited administrative capacity or resources required and can be implemented relatively quickly using existing tax frameworks (e.g., fuel excise)
- Provides greater certainty over the price of emissions (and revenue), but less certainty on the level of emissions and emission reduction delivered.*



Emissions Trading System

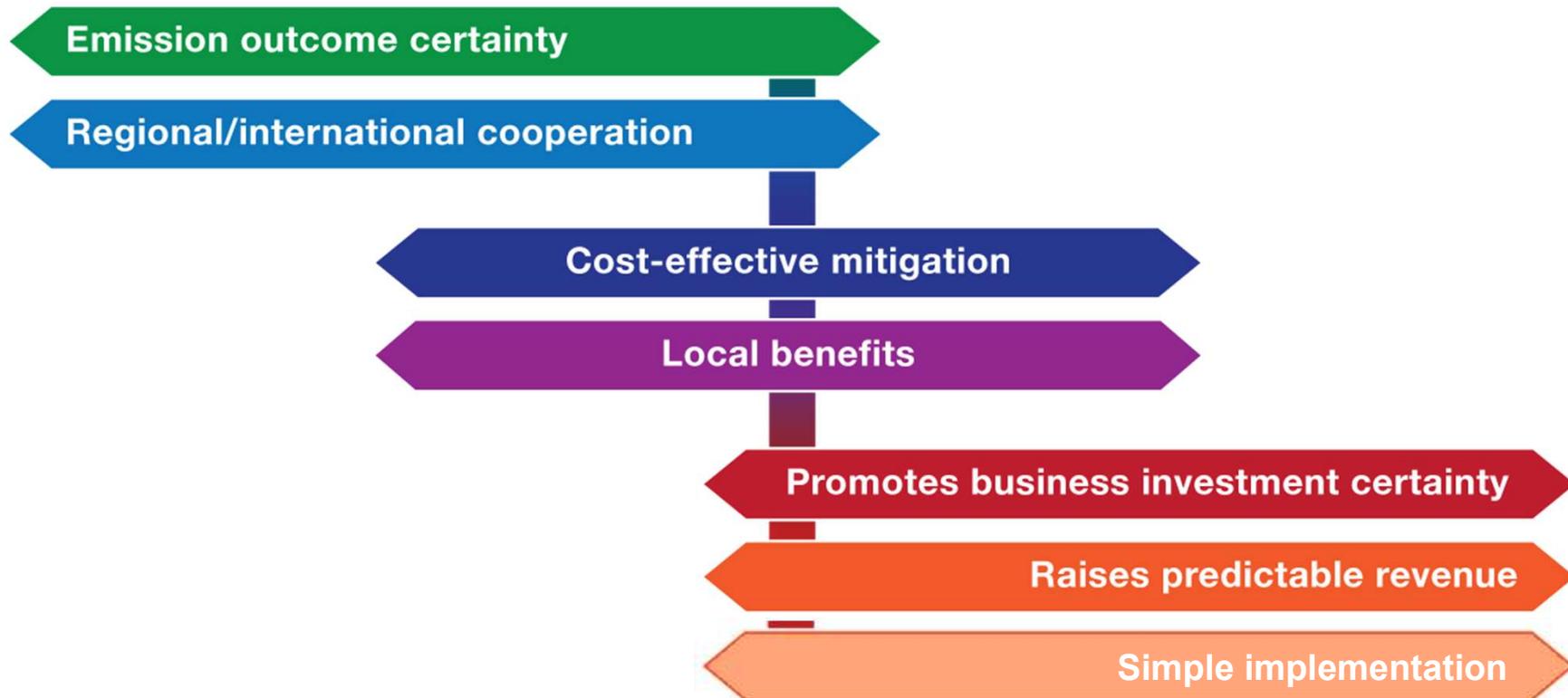
- ETS places a cap on the amount of GHG emissions, which can be tightened over time.
- provides greater certainty over emissions reductions but less certainty on carbon price and revenue.*
- provides additional flexibility regarding where and when emissions reductions occur.
- greater potential to link to other ETSs (internationally)
- But more complex to create and administer than carbon taxes (e.g., allocating allowances, trading infrastructure).



Which instrument is best?

ETS advantages

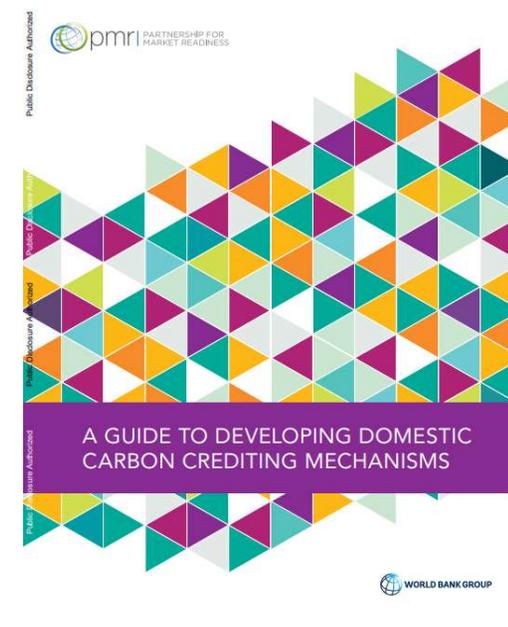
Carbon tax advantages



Choice of carbon pricing instrument depends on the policy objectives and national circumstances.

Crediting mechanism

- 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

International markets under the Paris Agreement

Markets under the Paris Agreement can draw from the Kyoto era, but the guiding framework is different

	Kyoto Protocol	Paris Agreement
Role of markets	Reduce cost and raise additional capital towards mitigation activities	
Compliance	CDM and JI had different regulators, but overall management by CMP	Bilateral or plurilateral for 6.2 and under the authority of the COP for 6.4
Participants	Annex I countries were buyers	Every country could be a buyer, a seller, or both
Criteria	Evolved on an ad-hoc basis	More deliberate effort due to increased awareness, experience with CDM

International market examples

Early action under Article 6

- Switzerland's KliK Foundation conducted two rounds of Requests for Proposal (RFP) with more to come. Total demand is 54 million tCO₂e between 2021-30.
- The Swedish Energy Agency initiated an RFP in 2019 to acquire emission reduction units under Article 6 of the Paris Agreement.

ICAO Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)

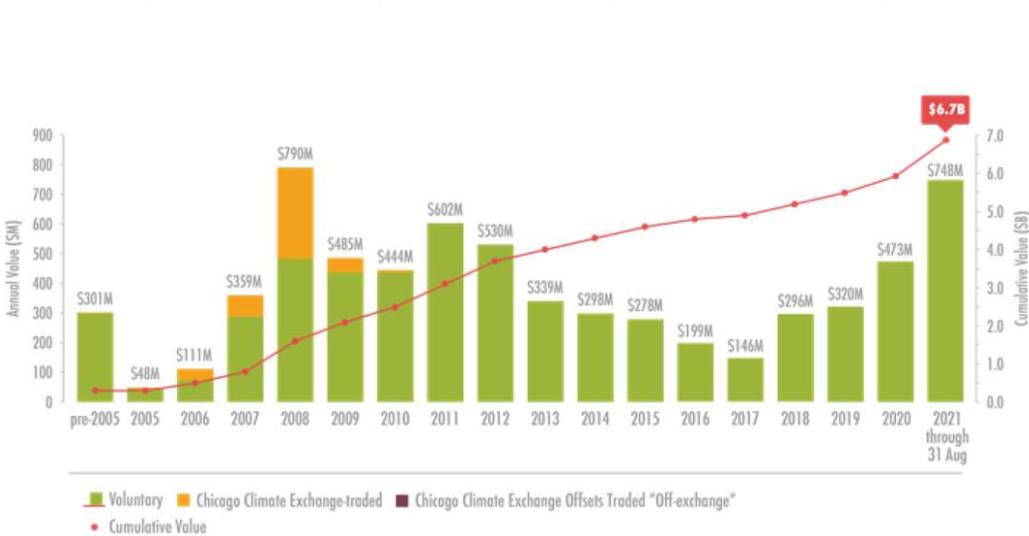
- Adopted in October 2016 to lower CO₂ emissions for international flights.
- Requires airlines to purchase and surrender carbon credits to offset international flights above a 2019-2020 baseline.
- In 2020, the ICAO Council approved credits from six programs.

Voluntary markets

- Market is growing rapidly. Potential to exceed \$1 billion traded value in 2021.
- Market has different drivers to compliance.
- Greater price delineation by project/activities

Voluntary markets

Voluntary market size by traded value, pre-2005 to 31 August 2021



Voluntary market size and price by Project Category in 2021

Project Category	Volume (MtCO2e)	Volume % Change from Prior Year	Price per ton (USD)	Value (USD)
FORESTRY AND LAND USE	115.0	139.4%	\$4.73	\$544.0M
RENEWABLE ENERGY	80.0	-0.3%	\$1.10	\$88.4M
ENERGY EFFICIENCY/ FUEL SWITCHING	16.1	-48.9%	\$1.57	\$24.2M
AGRICULTURE	3.4	876.8%	\$1.36	\$4.6M
WASTE DISPOSAL	2.7	-67.5%	\$3.93	\$10.6M
TRANSPORTATION	2.1	99.3%	\$1.00	\$2.1M
HOUSEHOLD DEVICES	1.8	-49.8%	\$5.75	\$10.4M
CHEMICAL PROCESSES/ INDUSTRIAL MANUFACTURING	1.1	-11.2%	\$3.22	\$3.5M

Source: Ecosystem Marketplace, State of the Voluntary Carbon Markets 2021

Which instrument is best?

Choice of instrument depends on the policy objectives and national circumstances



Carbon tax

Smaller, low-capacity economies and in jurisdictions with well-established and transparent tax frameworks.



ETS

Larger, more established and liberalized economies/sectors, political barriers to tax reform and/or economies looking for international linking opportunities.



Crediting mechanism

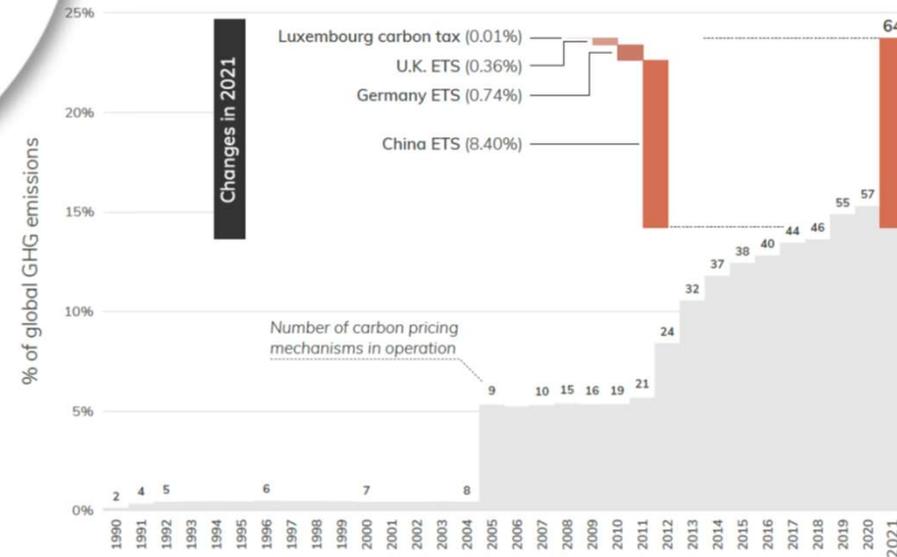
For activities where other tax/ETS face challenges and/or where jurisdictions want to build capacity and unlock options for investments/finance from international carbon markets.

Carbon pricing in EAP

Explicit carbon pricing in EAP countries is expanding

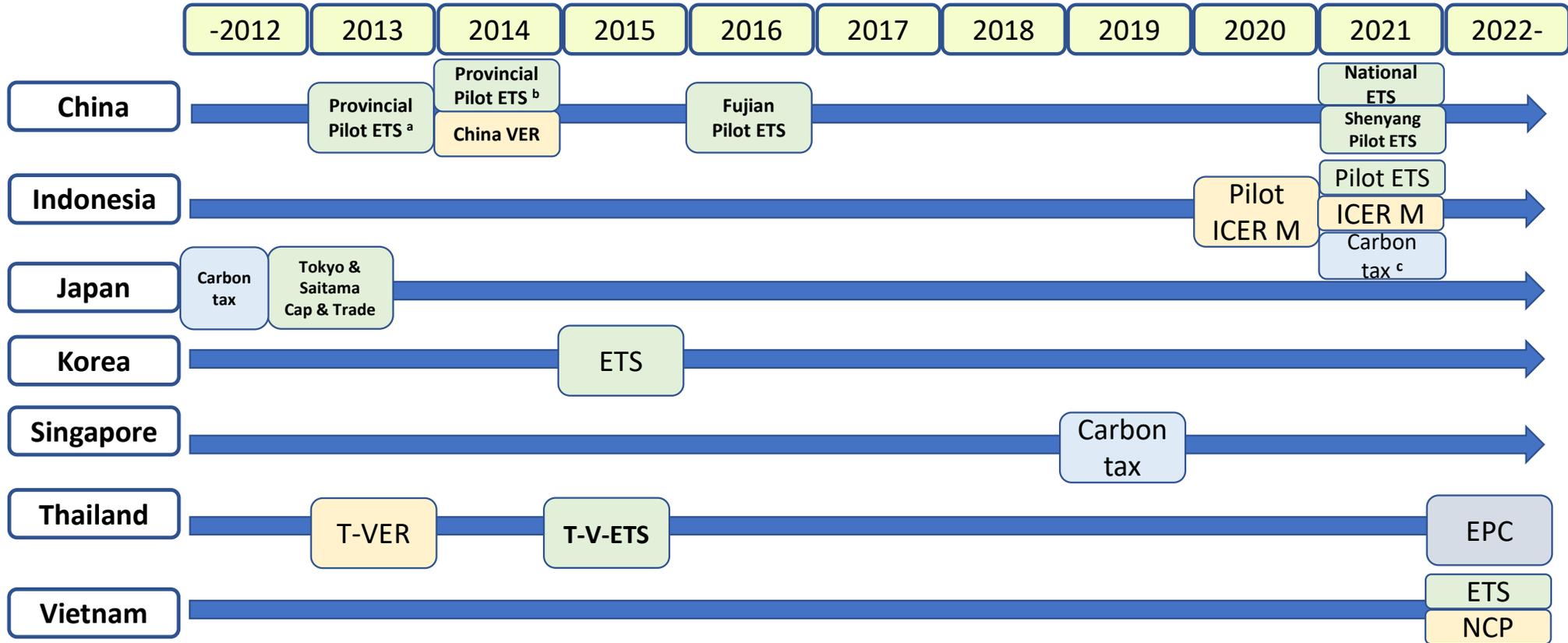


Several EAP countries have implemented an explicit carbon price as cost-effective policy actions for decarbonization (12 ETS and 2 carbon tax). Others are still considering the CPI implementation.



Source: State and Trends of Carbon Pricing 2021

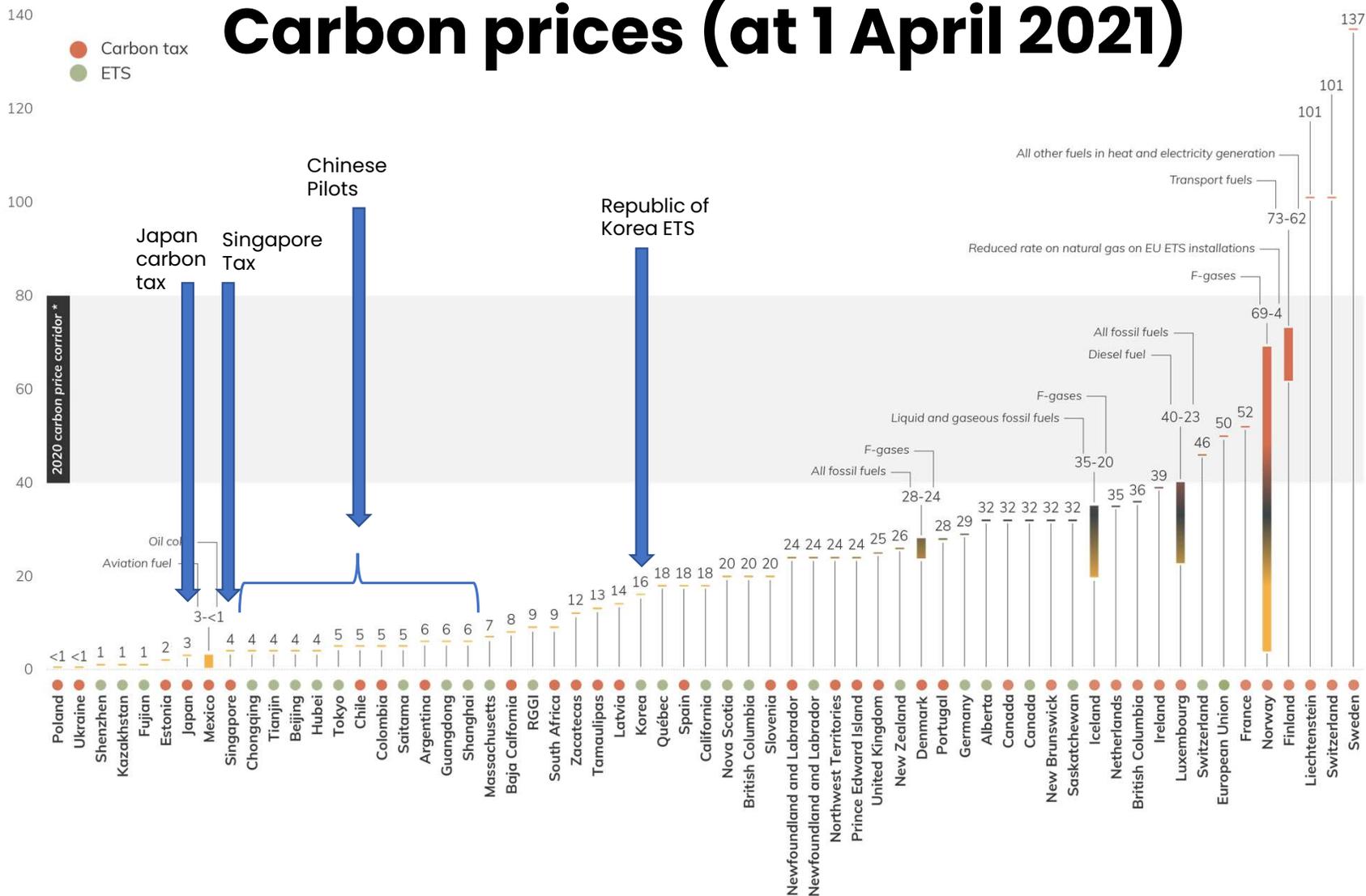
EAP countries' CPI initiatives



CPI under consideration	ETS/Cap and Trade	Crediting
Malaysia	Carbon Tax	Energy Performance Certificate
Mongolia		
Philippines		
Taiwan		

a: Guangdong, Beijing, Shanghai, and Tianjin; b: Hubei and Chongqing; c: Emission-based tax for cars
 China VER: China GHG Voluntary Emission Reduction Program
 ICER M: Indonesia Certified Emission Reduction Mechanism
 T-VER: Thailand Voluntary Emission Reduction Program
 T-V-ETS: Thailand Voluntary Emission Trading Scheme
 EPC: Energy Performance Certificate; NCP: National Crediting Program

Carbon prices (at 1 April 2021)



Conclusion



Expansion: Carbon pricing in the EAP continues to expand. Several promising developments, including beyond explicit carbon pricing.



Gaps remain: Ambition and policy gaps exist globally, including in EAP



Role of carbon pricing. Carbon pricing is an important mitigation tool. Diverse range of drivers including mitigation ambition (e.g. Paris NDC; net zero); managing emerging risks (e.g., Carbon Border Adjustments); Sustainable recovery (e.g., economic resilience; alternative revenue source); and energy security (away from imported fossil fuels)



Jurisdiction specific: Instrument choice (and design) depends on the policy objectives and national circumstances