From Local to Supranational

27 jurisdictions are implementing 20 ETSs across scales

1/8 of the global population lives under an ETS in force.

8% of global GHG emissions are covered by an ETS

Jurisdictions making up 37% of global GDP are using emissions trading
EMISSIONS TRADING WORLDWIDE

The state of play of cap-and-trade in 2019

The ICAP ETS world map depicts emissions trading systems currently in force, scheduled or under consideration. There are now 20 systems covering 27 jurisdictions with an ETS in force. Another six jurisdictions are putting in place their systems that could be operating in the next few years, including China and Mexico. 12 jurisdictions are also considering the role an ETS can play in their climate change policy mix, including Chile, Thailand and Vietnam.

A regularly updated, interactive version of the ICAP ETS map with detailed information on all systems is available at: www.icapcarbonaction.com/ets-map

ETS in force
ETS scheduled
ETS considered

Regional Greenhouse Gas Initiative (RGGI)
The RGGI carbon market looks set to expand with the re-entry of New Jersey and the inclusion of Virginia.

Mexico concluded its ETS simulation in 2018 and is developing rules for a pilot ETS.

Colombia adopted a law outlining provisions for a potential national ETS.

California completed regulations for its post-2020 program design, following the reform bill passed in 2017.

The Market Stability Reserve started operation at the start of 2019 addressing the allowance surplus and improving the system’s resilience to major shocks.

The reforms of the NZ ETS are taking shape this year, with auctioning, a new cost containment instrument and a coordinated decision process for setting unit supply being developed. The government will also consider whether agriculture should enter the system.

Vietnam

China

Japan

Republic of Korea

New Zealand

Brazil

Colombia

Mexico

California

Oregon

Washington

Ukraine

Kazakhstan

Chinese Pilots
• Beijing
• Chongqing
• Fujian
• Guangdong
• Hubei
• Shanghai
• Shenzhen
• Tianjin

European Union

The reforms of the NZ ETS are taking shape this year, with auctioning, a new cost containment instrument and a coordinated decision process for setting unit supply being developed. The government will also consider whether agriculture should enter the system.
GLOBAL EXPANSION OF EMISSIONS TRADING

GHG emissions under ETSs

The graphic depicts the worldwide growth of emissions trading over time. Systems are spreading around the world and new additions have more than doubled the share of global emissions covered by emissions trading since the launch of the EU ETS in 2005. With more systems expected in the next few years, we estimate the number of global emissions under emissions trading to increase by almost 70% in 2020 compared to 2019. Changes over time are driven by the addition of new sectors and systems, as well as by the counteracting trend of declining caps in many systems.
SECTOR COVERAGE

Sectors included in emissions trading across systems

The graphic shows sectors (types of economic activity) included in emissions trading across all systems in force, as well as the point at which those emissions are regulated. Only sectors covered by at least one ETS are included.1,2

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1 – Sectors are marked as covered by a system when at least some of this sector’s emissions face explicit compliance obligations. Not all of the sector’s facilities or GHG emissions must be regulated, in fact, this is rarely the case due to limits like inclusion thresholds. In addition, not all sub-sectors, gases, or processes of a given sector may be covered. The respective factsheets provide more information on system coverage.

2 – Detailed definitions of each sector are provided in the disclaimer.
DIFERENT SHAPES OF CAP-AND-TRADE

A comparative look at key metrics from carbon markets

This graphic shows five well-established systems along four key metrics. The cap reduction pathway indicates the average yearly decline between 2016 and 2020 in the number of allowances. The coverage shows the share of the jurisdiction’s economy that falls under the ETS. The carbon price is the average allowance price per metric ton of CO₂ across 2018 in each of the systems. The share of allowances designates allowances that are not allocated for free, e.g. those that must be acquired in auctions.

<table>
<thead>
<tr>
<th>System</th>
<th>Cap Trajectory (%)</th>
<th>Coverage (%)</th>
<th>Carbon Price (USD)</th>
<th>Share of Allowances (%)</th>
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<tbody>
<tr>
<td>RGGI</td>
<td>3.22</td>
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<td>100%</td>
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<tr>
<td>WCI</td>
<td>3.18</td>
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<td>NZ ETS</td>
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</table>

EU ETS European Emissions Trading System
KETS Korean Emissions Trading System
NZ ETS New Zealand Emissions Trading Scheme
RGGI Regional Greenhouse Gas Initiative
WCI Western Climate Initiative
Auctioning REVENUE

Funds raised by emissions trading systems

Auctioning allowances can generate public revenue that can be used in different ways depending on the priorities of the jurisdiction. Jurisdictions have tended to use auctioning revenue to fund additional climate programs, including energy efficiency and renewable energy programs. Auctioning revenue has also helped disadvantaged and low-income groups. The amount of revenue generated depends on many factors, including the size of the jurisdiction, the ETS coverage, the number of auctioned allowances and the carbon price. By the end of 2018, systems worldwide have raised over USD 57 billion, with revenue spent on different purposes such as renewable energy, innovation, compensation for disadvantaged groups, and the general budget.

By the end of 2018, systems raised a total of $57.3 billion in auction revenue.

- EU
- CALIFORNIA
- QUÉBEC
- RGGI
- SWITZERLAND

All values in million USD
GROWING STABILITY

The spread and diversification of market stability instruments

This graphic shows the different types of market stability instruments operating in emissions trading systems around the world. These come into play when allowance prices or the number of allowances in circulation go below or above a certain level.
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