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Clerk of the Privy Council and
Secretary to the Cabinet



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Ottawa, Canada
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JUL 12 2022

MEMORANDUM FOR THE PRIME MINISTER

NEXT STEPS IN THE GLOBAL CARBON PRICING CHALLENGE

(For Information)

SUMMARY

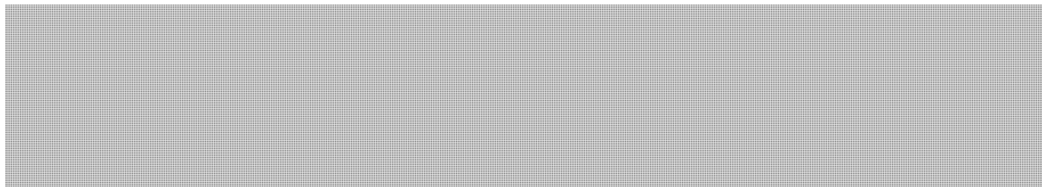
- At COP26 in Glasgow, Canada launched a challenge of tripling the coverage of carbon pricing around the world by 2030. To advance that challenge, Canada has already launched diplomatic outreach at the leader and ministerial levels, and will generate research and provide technical support to build capacity in jurisdictions considering adopting or strengthening a price on carbon pollution.

Background

- At COP26, you hosted a well-received panel discussion on international carbon pricing that included leaders from the European Union (EU), the International Monetary Fund (IMF), the World Trade Organization (WTO), and the private and financial sectors. During that discussion, you issued a challenge of tripling the reach of carbon pricing globally to cover 60 per cent of the world's greenhouse gas (GHG) emissions by 2030.

Canada

- Increasing the global reach of carbon pollution pricing helps to reduce emissions, supporting the achievement of the Paris Agreement's objectives. Growing the number of jurisdictions pricing carbon pollution also reduces potential competitiveness risks from carbon pricing for industry sectors that compete internationally – an important consideration as Canada's federal carbon price increases to \$170 per tonne in 2030, a trajectory that places this country among the



- As of May 2022, there were 68 carbon pricing instruments in operation around the world, covering 23 per cent of global GHG emissions. The largest recent increase in emissions coverage came from the launch of China's national Emissions Trading System in 2021. Uruguay and Oregon have recently adopted carbon pricing systems, and Washington State, Indonesia and Austria currently have carbon pricing systems scheduled for implementation.
- European countries have long been leaders in carbon pricing. The EU Emissions Trading System covers emissions from industry, power generation and aviation across Europe, with a number of countries – including France and Germany – also adopting national systems to increase the price or coverage. The United Kingdom (UK) has introduced a domestic system to replace the EU system following its withdrawal from the EU.
- A notable exception among key allies is the United States (U.S.), which does not price carbon at the national level, although several states and groups of states operate pricing systems. **(TAB A)** provides a more detailed overview of price levels and coverage in existing carbon pricing systems and jurisdictions considering the adoption of carbon pricing mechanisms.

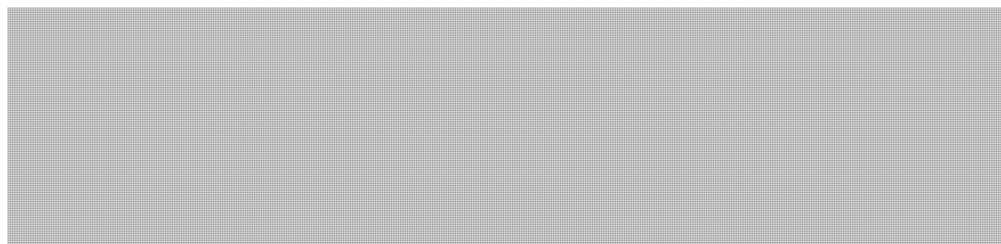
Advancing the Global Carbon Pricing Challenge


- Canada's work to advance the Global Carbon Pricing Challenge through to 2030 includes three core functions **(TAB B)**:
 - *Collaboration*: working effectively with existing carbon pricing leaders and ongoing initiatives;

- *Commitments*: securing pledges from countries and sub-national jurisdictions to adopt or expand carbon pricing systems; and
 - *Communications*: finding opportunities to highlight the importance and effectiveness of carbon pricing in reducing emissions and attaining Paris Agreement goals.
- o In joining the Challenge, jurisdictions would commit to participate in each of those areas. All participants would be asked to echo the Challenge's goals in their own communications and encourage others to adopt or expand carbon pricing. In return, the Challenge would highlight their progress and the contribution they have made toward the goal of expanding global coverage to 60 per cent by 2030. In addition,
 - **Carbon pricing leaders** would be expected to look for opportunities to strengthen or expand their domestic systems over time, and to share technical support and lessons learned with jurisdictions considering adopting or expanding carbon pollution pricing.
 - **"Prospect" jurisdictions looking at adopting carbon pollution pricing** would commit to explore opportunities to establish domestic pricing systems. In return, partners in the Challenge could offer technical advice, share best practices, or provide climate finance support where appropriate.
 - The role of **supporting organizations** would focus on tracking progress and building capacity for effective carbon pricing policies, including by developing and disseminating research.

Prime Ministerial Engagement

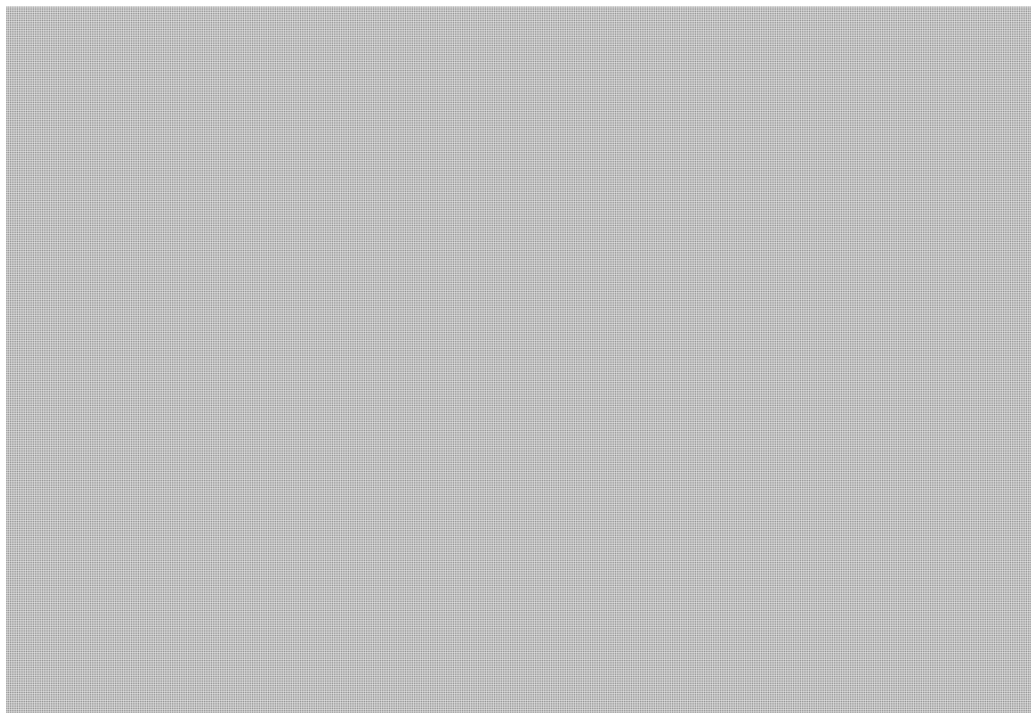
- o You have asked for a plan as to how you can dedicate time to leading the Global Carbon Pricing Challenge. The plan foresees three milestone phases for leader-level engagement opportunities:
 1. **Outreach to potential partners and prospects (ongoing):**

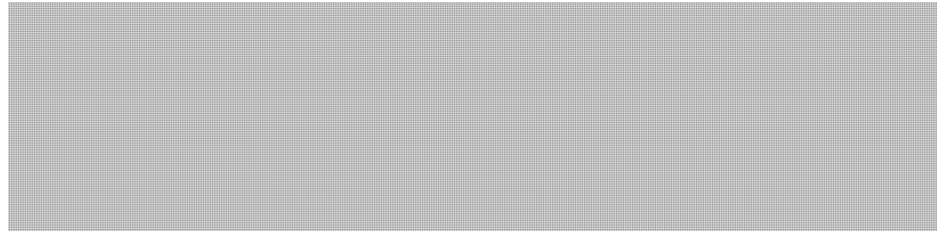




Major Economies Forum on Energy and Climate (MEF) hosted by President Biden on June 17, 2022, you invited all countries to join the Challenge, and you issued a joint declaration with Chilean President Gabriel Boric on carbon pricing in early June 2022, which included a commitment to partner on the Global Carbon Pricing Challenge. In the coming months, this outreach effort will continue and intensify. Your role as co-chair of the Sustainable Development Goals Advocates, alongside Prime Minister Mia Mottley, also presents opportunities for carbon pricing outreach and engagement.

- *Summits:* You are participating in a busy schedule of summits in 2022, including the G7, the G20, and the Summit of the Americas. As G7 President, Germany has made climate action a priority; Indonesia, the G20 President, is in the process of adopting a carbon pricing system. A number of prospect jurisdictions for adopting or expanding carbon pricing are G20 members, and Canada would work to advance the Challenge through bilateral meetings, summit outcomes, and potentially side-events.





3. Continuing momentum after COP27:

- Canada would plan to host a high-level Global Carbon Pricing Challenge event at each subsequent COP meeting, showing progress towards the objective of 60 per cent coverage. In 2023, Canada would build from the COP27 event with diplomatic, ministerial and potentially leader-level engagement aimed at securing new carbon pricing commitments from prospect jurisdictions.

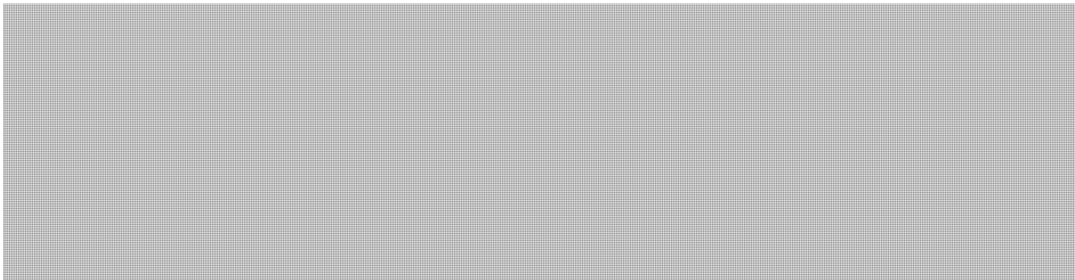
Approach to Governance

- o With the above plan and engagement approach developed, officials are now implementing more systematic governance in support of the initiative to ensure continued momentum and oversight. Key roles include:
 - **Environment and Climate Change Canada, working with GAC**, to lead on the overall strategy, including milestones and success markers;
 - **PCO-Foreign and Defense Policy, working with GAC**, to lead on the leader-level and aligned international engagement plan, including relevant ministerial and diplomatic engagement; and
 - **PCO-Climate Secretariat** to convene regular implementation update meetings of officials to advance the initiative and report on progress to your office.

Relationship to Germany's Climate Club Proposal

- o At the June 2022, G7 in Elmau, Germany, G7 leaders agreed to work towards "establishing an open, cooperative international Climate Club, consistent with international rules, by the end of 2022." The proposed Club would have three pillars:
 - Advancing ambitious carbon mitigation policies and avoiding carbon leakage. To do this, members will work towards a

common approach to comparing the effectiveness of mitigation policies;

- Transforming industries jointly to accelerate decarbonization and expanding markets for green industrial products; and
 - Boosting international climate cooperation and partnership to unlock economic benefits of cooperation.
- o The Climate Club is broader in scope than Canada's challenge: while Germany's initiative will consider emission reduction efforts writ large (including explicit carbon pricing, emission intensity reductions, and other mitigation approaches), Canada's is focused exclusively on carbon pricing. In addition, Canada's proposed approach would encourage the adoption and expansion of carbon pricing systems everywhere without requiring a minimum price or stringency to participate; in contrast, Germany's is focused on defining and supporting comparability of effort.
 - o 
 - o If the Climate Club is launched successfully at the end of 2022, Canada's broad-based and non-punitive effort would be an important complement to it, helping to manage the risk of carbon pricing being perceived as inequitable to countries in the global south.

Linkage to Border Carbon Adjustments

- o The 2021 mandate letters called on the Deputy Prime Minister to work with the Prime Minister "to champion the adoption of a global minimum standard on carbon pricing while continuing to consult with Canadians and actively engage with provinces, territories and key trading partners, including the U.S. and the EU, to inform the development of an approach to applying Border Carbon Adjustments to imports from countries that are not doing their part to reduce carbon pollution and fight climate change."

- Border Carbon Adjustments (BCAs) are import charges applied to goods from countries that either do not have carbon pricing, or apply a lower carbon price, to ensure that they face similar carbon costs to those that apply to domestic producers in jurisdictions that price carbon pollution more stringently.
- As the mandate letter makes clear, there is a close relationship between the Global Carbon Pricing Challenge – which seeks to draw more countries into carbon pricing – and BCAs, which could protect Canadian industry from competitiveness risks where jurisdictions are not yet adequately pricing pollution. In the fall of 2020, the Government of Canada announced its intention to explore the potential of BCAs as part of Canada's transition to a low-carbon economy.
- Active engagement of the Minister of Finance, and the Department of Finance Canada, in the Global Carbon Pricing Challenge can help ensure that Canada's work to expand carbon pricing is complementary to its further consideration of BCAs.

PCO Comment

- Given the prominence of carbon pricing in Canada's climate change policy, an effective effort to broaden the reach of carbon pricing internationally is worthwhile for both environmental and economic reasons. The Global Carbon Pricing Challenge emphasizes coverage of emissions – an area where Canada is already among the leaders (see **TAB B**). As currently conceived, it would be inclusive and welcoming, thus providing a complement to international climate policy initiatives with higher barriers to entry.
- However, showing tangible progress towards an ambitious objective will require a significant ramp-up in Canada's climate diplomacy effort.

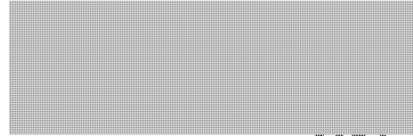
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Given varied departmental perspectives and areas of expertise, PCO will have to play an active coordination role to ensure that this initiative is prioritized.



Janice Charette

JOC

Attachments

Demerse/Dompierre/deVlieger/Kwan/Levesque/sj/Tupper

STATUS OF CARBON PRICING AROUND THE WORLD

**prices are as of April 1st, 2022*

Country	Pricing Regime	Comments
Argentina	<p>Carbon tax</p> <ul style="list-style-type: none"> • Implemented in 2018 • Covers most liquid fuels and some solid products (mineral coal and petroleum coke) from all sectors, with some exemptions • 20% of the jurisdiction's GHG emissions are covered • Price: AR\$555/tCO_{2e} (US\$5/tCO_{2e}) 	<ul style="list-style-type: none"> • Tax rate became operational from the beginning of 2019, at 10% of the full tax rate, and will increase annually by 10% to reach 10\$ in 2028. • Revenue is designated to multiple beneficiaries, including the National Housing Fund, the Transport Infrastructure Trust, the social security system, etc.
Australia	<ul style="list-style-type: none"> • None currently 	<ul style="list-style-type: none"> • Had a carbon tax system that was repealed in 2014. • By the time that it was repealed, it was estimated that the scheme had cut emissions by about 17 million tonnes in 2013. • Previous Price: AU\$23/tCO_{2e} (US\$16.92/tCO_{2e}) • Does have a fuel excise tax (implicit price) in place since 2018 that covered 22.4% of emissions in 2021.
Botswana	<p>Carbon tax</p> <ul style="list-style-type: none"> • Under consideration 	<ul style="list-style-type: none"> • Exploring the feasibility of a wide range of carbon pricing instruments to support their mitigation goals. • Botswana's National Climate Change Policy, which was approved in 2021, outlines the government's commitment to adopt and enforce carbon taxes. It also highlights the potential to use carbon offsets and to adopt a cap-and-trade ETS.
Brazil	<p>ETS</p> <ul style="list-style-type: none"> • Under consideration 	<ul style="list-style-type: none"> • At the end of 2021, draft law to create the National Policy on Climate Change and Green Growth was released. This law would

Country	Pricing Regime	Comments
		<p>establish details and guidelines about a potential carbon pricing instrument.</p> <ul style="list-style-type: none"> Stakeholders, government ministries, and law-makers are involved in ongoing processes to consider the implementation of an ETS in Brazil. The Ministry of Economy is developing design options and conducting comprehensive economic and regulatory impact assessments for options of either an ETS or carbon tax.
<p>Chile</p>	<p>Carbon tax</p> <ul style="list-style-type: none"> Implemented in 2017 Covers all fossil fuels, mainly from the power and industry sectors. 29% of the jurisdiction's GHG emissions are covered Price: US\$5/tCO₂e <p>ETS</p> <ul style="list-style-type: none"> Under consideration 	<ul style="list-style-type: none"> In December 2021, the government recommended a CO₂ price of at least USD35/tCO₂e by the end of the decade as part of the updated Energy Policy 2050. The tax reform approved in 2020 established that, as of 2023, it will apply to installations that emit 25,000 tCO₂ or more. Carbon tax system was designed to be ETS compatible to facilitate the possible implementation of an ETS in the future.
<p>China</p>	<p>ETS</p> <ul style="list-style-type: none"> Implemented in 2021 Only applies to CO₂ emissions from the power sector (initially) 33% of the jurisdiction's GHG emissions are covered Price: RMB59/tCO₂e (US\$9/tCO₂e) 	<ul style="list-style-type: none"> 2021 saw China's national ETS complete its first full compliance cycle, with a reported compliance rate of 99.5% and covering about 4.5 billion tCO₂e. Compliance obligations for entities in the power sector emitting over 26,000 tCO₂ annually. The eight pilot ETSs operating in China will gradually be integrated into the national ETS, expanding to include another seven sectors: aviation, building materials,

Country	Pricing Regime	Comments
		<p>chemicals, iron and steel, non-ferrous metals, pulp and paper, and petrochemicals.</p>
<p>Colombia</p>	<p>Carbon tax</p> <ul style="list-style-type: none"> • Implemented in 2017 • Applies to GHG emissions from all sectors (with some exemptions) • 23% of the jurisdiction's GHG emissions are covered • Price: COP18830/tCO₂e (US\$5/tCO₂e) <p>ETS</p> <ul style="list-style-type: none"> • Under consideration 	<ul style="list-style-type: none"> • Companies can meet up to 100% of their carbon tax obligations through the use of domestic offset credits. • Law 2169 from December 2021 established that, as of 2023, 50% of the revenues from the tax will be used, among others, in coastal erosion management, conservation of water resources, and the protection of ecosystems. • Colombia is currently considering an ETS and has been part of the Pacific Alliance and the 'Carbon Pricing in the Americas' initiative to explore regional carbon pricing. • The Climate Action Law, which came into force in December 2021, sets a goal to fully implement the ETS by 2030.
<p>Costa Rica</p>	<ul style="list-style-type: none"> • None currently 	<ul style="list-style-type: none"> • No explicit carbon tax or ETS, but the country does collect some energy and excise taxes. • In 2018, Costa Rica outlined the first stage of its plan to decarbonise the country by 2050, including a planned green tax reform.
<p>Cote d'Ivoire</p>	<p>ETS</p> <ul style="list-style-type: none"> • Under consideration 	<ul style="list-style-type: none"> • Is exploring carbon pricing as part of the policy options to reach the objectives of its NDC. • Five preliminary studies have been conducted and are expected to be presented to local stakeholders in 2022. The next steps will be

Country	Pricing Regime	Comments
		<p>informed by feedback provided through this processes.</p>
<p>European Union</p>	<p>ETS</p> <ul style="list-style-type: none"> • Implemented in 2005 • Covers CO₂ emissions from the manufacturing industry, power and aviation sectors and includes industrial process emissions • 41% of the jurisdiction's GHG emissions are covered • Price: EUR78/tCO₂e (US\$87/tCO₂e) 	<ul style="list-style-type: none"> • In July 2021, the European Climate Law came into force, which sets binding EU-wide climate targets for 2030 (55% cut in GHG emissions compared to 1990 levels), 2050 net-zero emissions targets, and initiating a process to develop a 2040 target • The European Commission also put forward a policy reform package to deliver on the European Green Deal and to align decarbonization efforts with the updated 2030 climate targets. • Also in 2021, the revised directive entered into force, outlining the policy framework for the fourth trading phase. This included: <ul style="list-style-type: none"> ○ Strengthening the annual rate of the cap reduction; ○ Implementing the Market Stability Reserve; ○ Better targeting leakage and allocation rules' and ○ Establishing the Innovation Fund • The 2021 cap was set at 1572 MtCO₂e for stationary installations, while the cap for emissions from the domestic aviation sector is 38 MtCO₂e • For the 2022-2030 period, the cap declines by 2.2% annually (with a proposal to nearly double the annual cap decline to 4.2%)
<p>France</p>	<p>Carbon tax</p> <ul style="list-style-type: none"> • Implemented in 2014 	<ul style="list-style-type: none"> • Set on an increasing price trajectory towards EUR86.2/tCO₂ in 2022, but

Country	Pricing Regime	Comments
	<ul style="list-style-type: none"> Covers all fossil fuels, mainly from industry, buildings, and transport sectors (with some exemptions) 35% of the jurisdiction's GHG emissions are covered Price: EUR45/tCO_{2e} (US\$49/tCO_{2e}) 	<ul style="list-style-type: none"> was later modified. Following nationwide consultations, the tax rate was frozen at EUR44.6/tCO_{2e} for 2019 and remained at that level for 2020 and 2021.
Germany	<p>ETS</p> <ul style="list-style-type: none"> Implemented in 2021 Covers all fossil fuels from the buildings and road transport sectors 40% of the jurisdiction's GHG emissions are covered Price: EUR30/tCO_{2e} (US\$33/tCO_{2e}) 	<ul style="list-style-type: none"> Covers the heat and road transport sectors, which are currently not covered by the EU ETS. In July 2021, a 'Carbon Leakage Regulation' was adopted, aiming to ensure cross-border competitiveness of firms regulated under the system. The fixed price will continue to rise until EUR55/tCO_{2e} in 2025. In 2026, allowances will be auctioned in a price corridor. From 2027 onwards, allowance prices will be set by the market unless the government proposes a new price corridor in 2025. Revenue will be used to support decarbonization, to lower electricity rates for consumers, and to deduct transport costs from income taxes.
India	<ul style="list-style-type: none"> None currently 	<ul style="list-style-type: none"> While India does not have an explicit carbon price or market-based mechanism, it does have an array of schemes and mechanisms that put an implicit price on carbon. Since 2018, effective carbon rates in India consisted entirely of fuel excise taxes. These taxes covered 58.1% of emissions in 2021. India priced about 60% of its carbon emissions from energy use.

Country	Pricing Regime	Comments
Indonesia	<p>ETS</p> <ul style="list-style-type: none"> • Under consideration 	<ul style="list-style-type: none"> • Indonesia is working towards a mandatory domestic ETS for the power and industry sectors to help meet its NDC targets and foster low-carbon sustainable development. • In March 2021, the launch of a voluntary emissions trading trial for the power sector was announced. This is considered a pilot and aims to familiarize stakeholders with the development of a national ETS system. 80 coal-fired power plants are participating in the voluntary program. • As of March 2022, the government is working on a set of draft regulations to guide the development and implementation of carbon pricing instruments in Indonesia.
Italy	<ul style="list-style-type: none"> • None currently • Falls under the jurisdiction of the EU ETS 	<ul style="list-style-type: none"> • Since 2018, the effective carbon rates in Italy consisted of fuel excise taxes and, to a smaller extent, of permit prices from the EU-ETS. Italy priced about 85% of its carbon emissions from energy use.
Israel	<p>Carbon tax</p> <ul style="list-style-type: none"> • Under consideration 	<ul style="list-style-type: none"> • In August 2021, the government announced the intention to implement a carbon tax in 2023. • The tax is anticipated to be applied through the existing fuel excise system and will cover coal, LPG, fuel oil, petcoke, and natural gas.
Japan	<p>Carbon tax</p> <ul style="list-style-type: none"> • Implemented in 2012 • Covers all fossil fuels from all sectors (with some exemptions for the industry, power, agriculture, and transport sectors) • 75% of the jurisdiction's GHG emissions are covered 	<ul style="list-style-type: none"> • An ETS has been under consideration since 2008. In March 2018, an expert committee released a study assessing how carbon pricing could help Japan achieve long-term emissions reductions • Ministry of the Environment resumed discussions on February 1, 2021, while the Ministry of

Country	Pricing Regime	Comments
	<ul style="list-style-type: none"> • Price: JPY289/tCO_{2e} (US\$2/tCO_{2e}) 	<p>Economy, Trade, and Industry started a carbon pricing study group in mid-February 2021.</p>
<p>Korea (Republic of)</p>	<p>ETS</p> <ul style="list-style-type: none"> • Implemented in 2015 • Covers GHG emissions from the industry, power, buildings, domestic aviation, public, and waste sectors. • 73% of the jurisdiction's GHG emissions are covered • Price: KRW22700/tCO_{2e} (US\$19/tCO_{2e}) 	<ul style="list-style-type: none"> • Phase 3 commenced in 2021 with a stricter cap and an increased proportion of allowances distributed via auction. Phase 3 has also seen third-party participation, with the government approving 20 financial institutions to enter the market for the first time. <ul style="list-style-type: none"> ○ The ETS cap is set to decline by 4% during this phase, with a further 7% from 2026. • In line with the Republic of Korea's 2050 net zero announcement at the end of 2020, the government is developing a 2050 carbon neutral scenario.
<p>Malaysia</p>	<p>ETS</p> <ul style="list-style-type: none"> • Under consideration 	<ul style="list-style-type: none"> • Considering using carbon pricing instruments, such as domestic ETS and carbon taxes, to help meet its NDC and decarbonization goals. • Government ministries are working together to develop the ETS policy and implementation framework. They are also considering the potential to implement other carbon pricing policies, including a carbon tax and voluntary carbon markets.
<p>Mexico</p>	<p>Carbon tax</p> <ul style="list-style-type: none"> • Implemented in 2014 • Covers all fossil fuels (except natural gas) from all sectors. • 44% of the jurisdiction's GHG emissions are covered • Price: 	<ul style="list-style-type: none"> • The tax is capped at 3% of the fuel sales price. • Revenues from the carbon tax will be used on energy efficiency, technologies, and the improvement of public transportation. • In January 2020, the Mexico pilot ETS started operation as part of a

Country	Pricing Regime	Comments
	<p>Upper: MXN74/tCO_{2e} (US\$4/tCO_{2e}) Lower: MXN8/tCO_{2e} (US\$0.42/tCO_{2e})</p>	<p>two-phase process to gradually established an ETS. It covers entities from the energy and industry sectors that generate at least 100,000 tCO₂ per year. Emissions from these sources account for approximately 40% of the country's GHG emissions.</p> <ul style="list-style-type: none"> The rules for the 2022 transitional phase are yet to be announced. The Ministry of Environment and Natural Resources is expected to publish the regulations of the operational period of the ETS in the first half of 2023.
<p>Morocco</p>	<p>Carbon tax</p> <ul style="list-style-type: none"> Under consideration 	<ul style="list-style-type: none"> In August 2021, Morocco passed a Framework Law on Fiscal Reform. The new law flags a number of potential new fiscal measures, including the potential to introduce a carbon tax.
<p>New Zealand</p>	<p>ETS</p> <ul style="list-style-type: none"> Implemented in 2008 Covers GHG emissions from the industry, power, waste, transport, and forestry sectors and includes industrial process emissions. 49% of the jurisdiction's GHG emissions are covered Price: NZ\$76/tCO_{2e} (US\$53/tCO_{2e}) 	<ul style="list-style-type: none"> In June 2020, reforms to the NZ ETS were introduced, including a cap of 260 MtCO_{2e} for 2021-2050. The cap is set five years in advance and is annually updated on a rolling basis, and also determines the share of allowances to be auctioned each year. A number of reforms were also made in 2021, including: a new cap on unit supply and the introduction of an auctioning mechanism. Auctioning began in March 2021. The government is considering the use of international offset credits, but a limit of zero has currently been set for 2021-2025.
<p>Norway</p>	<p>Carbon tax</p> <ul style="list-style-type: none"> Implemented in 1991 Covers liquid and gaseous fossil fuels from all sectors (with some exemptions) 	<ul style="list-style-type: none"> The carbon tax is split into an excise tax on mineral products and a separate law for petroleum activities on the continental shelf.

Country	Pricing Regime	Comments
	<ul style="list-style-type: none"> 63% of the jurisdiction's GHG emissions are covered Price: NOK766/tCO₂e (US\$88/tCO₂e) 	<ul style="list-style-type: none"> In its Climate Plan for 2021-2030, the government announced plans to increase the rate of the carbon tax on non-ETS emissions to NOK2000/tCo₂e by 2030. To keep up with this trajectory, Norway increased the rates by 30% for most fossil fuels in 2022. Norway also introduced a reduced tax rate on waste incineration and natural gas/LPG used in greenhouses, which were previously exempted.
Pakistan	<p>ETS</p> <ul style="list-style-type: none"> Under consideration 	<ul style="list-style-type: none"> Considering market-based carbon pricing instruments, including ETS. In December 2019, Pakistan launched the National Committee on Establishment of Carbon Markets, which is tasked with assessing the role and scope of carbon markets in the country's NDC. As of 2021, provisions are being drafted for domestic carbon pricing instruments.
Poland	<p>Carbon tax</p> <ul style="list-style-type: none"> Implemented in 1990 Covers all fossil fuels and other fuels leading to GHG emissions from all sectors (with some exemptions) 4% of the jurisdiction's GHG emissions are covered <p>Price: PLZ0.32/tCO₂e (US\$0.08/tCO₂e)</p>	<ul style="list-style-type: none"> Taxes different kinds of environmental emissions such as CO₂ emissions, dust, sewage, and waste.
Philippines	<ul style="list-style-type: none"> None currently 	<ul style="list-style-type: none"> Does not have an explicit carbon tax, but does collect energy taxes, including excise taxes on fuels and electricity consumption.

Country	Pricing Regime	Comments
		<ul style="list-style-type: none"> The government is currently developing legislation to help promote and establish carbon pricing initiatives in the Philippines.
Russia	<ul style="list-style-type: none"> None currently 	<ul style="list-style-type: none"> Russia is considering drafting its own carbon tax as the EU prepares plans to impose a CO₂ tariff on polluting goods from 2026.
Saudi Arabia	<ul style="list-style-type: none"> None currently 	<ul style="list-style-type: none"> In October 2019, the Saudi Energy Ministry announced plans to launch a carbon-trading scheme as part of the kingdom's goal to diversify its energy supplies and reduce emissions.
Senegal	<p>Carbon tax</p> <ul style="list-style-type: none"> Under consideration 	<ul style="list-style-type: none"> Is exploring carbon pricing as part of the policy options to reach the objectives of its NDC. In 2018, a study on carbon pricing on the domestic level was carried out, and identified the need for additional analyses.
Singapore	<p>Carbon tax</p> <ul style="list-style-type: none"> Implemented in 2019 Covers GHG emissions from all sectors for facilities emitting 25kt CO₂e or more annually. 80% of the jurisdiction's GHG emissions are covered Price: S\$5/tCO₂e (US\$4/tCO₂e) 	<ul style="list-style-type: none"> Carbon tax rate will increase to SGD25/tCO₂e in 2024 and 2025, and SGD45/tCo₂e in 2026 and 2027, with a view of reaching SGD50-80/tCO₂e by 2030. Companies will be able to surrender high quality international carbon credits to offset up to 5% of their taxable emissions from 2024. A transition framework will also be introduced to give existing EITE companies time to adjust. The government is currently consulting on the framework, and the details will be finalized in 2023.

Country	Pricing Regime	Comments
<p>South Africa</p>	<p>Carbon tax</p> <ul style="list-style-type: none"> • Implemented in 2019 • Covers GHG emissions from the industry, power, and transport sectors • 80% of the jurisdiction's GHG emissions are covered • Price: R144/tCO₂e (US\$10/tCO₂e) 	<ul style="list-style-type: none"> • As part of the 2022 budget, the government announced a range of updates to the carbon tax, including: an increase in the tax rate for the 2022 tax period, reforms to the transitional phase of the carbon tax (extending it by three years to December 2025), and more. • Also released a proposal to revise how future carbon tax rates are set. This proposal included a proposed increase to the carbon tax rate by at least USD1 each year, to reach USD20 per tonne of CO₂e by 2026. Thereafter, the carbon price would increase more rapidly to at least USD30 by 2030 and up to USD120 beyond 2050. • The government also intends to gradually reduce the basic tax-free allowances in the period from 2026 to 2030, and to increase the carbon offset allowances by 5% from January 2026 to encourage investments in carbon offset projects.
<p>Sweden</p>	<p>Carbon tax</p> <ul style="list-style-type: none"> • Implemented in 1991 • Covers CO₂ emissions from all fossil fuels from the transport and buildings sector, with other sectors covered with partial exemptions • 40% of the jurisdictions GHG emissions are covered • Price: kr1220/tCO₂e (US\$130/tCO₂e) 	<ul style="list-style-type: none"> • In August 2019, the system's exemptions were eliminated or reduced in order to help reach Sweden's target of net-zero emissions by 2045. • The annual adjustment by GDP has been paused for 2021 and 2022 for gasoline and diesel.

Country	Pricing Regime	Comments
<p>Switzerland</p>	<p>ETS and Carbon Tax</p> <ul style="list-style-type: none"> • Implemented in 2008 • ETS: Covers GHG emissions from the industry and power sectors and includes industrial process emissions. • 11% of the jurisdiction's GHG emissions are covered by the ETS • Carbon Tax: Covers all fossil fuels used in heating and industrial processes from the industry, power, and buildings sectors • 33% of the jurisdiction's GHG emissions are covered by the carbon tax • ETS Price: Sfr59/tCO₂e (US\$64/tCO₂e) • Carbon Tax Price: Sfr120/tCO₂e (US\$130/tCO₂e) 	<ul style="list-style-type: none"> • In January 2020, the linking of the Swiss and EU ETS came into force. Following the linking agreement, covered entities in the Switzerland ETS will be able to use allowances from the EU ETS for compliance, and vice versa. However, the two systems run separate auctions. • In December 2021, the government presented a new policy package for consultation to reach its 50% emissions reduction target by 2030. In parallel, debate is ongoing to enshrine the the-zero target for 2050 in the constitution. • Also in December 2021, the government adopted a prolongation of the CO₂ Act through a partial revision under 2024.
<p>Taiwan</p>	<p>ETS</p> <ul style="list-style-type: none"> • Under consideration 	<ul style="list-style-type: none"> • In July 2015, legislation enacted a 50% emissions reduction target for 2050 compared to 2005 GHG levels. It also mandated the setting of regulatory mitigation goals in stages, which stipulates the implementation of a domestic cap-and-trade scheme. • In October 2021, draft legislation proposed a new carbon fee for domestic emissions, which would commence ahead of an ETS mechanism. • Regulatory discussions are pending on the specific design of the carbon fee and ETS system, the timeline of implementation, and how the carbon fee could transition or co-exist with an ETS.
<p>Thailand</p>	<p>ETS</p> <ul style="list-style-type: none"> • Under consideration 	<ul style="list-style-type: none"> • The government is assessing various types of carbon pricing initiatives. As part of this process, Thailand started

Country	Pricing Regime	Comments
		<p>a voluntary ETS consisting of two phases.</p> <ul style="list-style-type: none"> In 2020, MRV and sector-specific guidelines were developed for the following sectors: beverage and sugar, textiles, and flat glass. Following COP26, the government is developing rules and guidelines for carbon credit trading, expected to be released in 2022.
<p>Trinidad and Tobago</p>	<ul style="list-style-type: none"> None currently 	<ul style="list-style-type: none"> Exploring opportunities for carbon pricing to accelerate their path towards net-zero.
<p>Turkey</p>	<p>ETS</p> <ul style="list-style-type: none"> Under consideration 	<ul style="list-style-type: none"> Since 2013, Turkey has been working to enhance their monitoring, reporting and verification (MRV) regulations. A number of studies have also been conducted to explore future market-based mechanisms, including a possible ETS. In December 2020, Turkey published the final draft legal and institutional framework for a pilot ETS. On February 2021, the implementation of a national ETS was announced, but the state starts are not yet known.
<p>United Kingdom</p>	<p>ETS</p> <ul style="list-style-type: none"> Implemented in 2021 Covers GHG emissions from the power sector, energy-intensive industries, and aviation. 28% of the jurisdiction's GHG emissions are covered Price: N/A Carbon Price Support Price: GBP75/tCO_{2e} (US\$99/tCO_{2e}) 	<ul style="list-style-type: none"> UK ETS has a tighter emissions cap than the EU ETS, with an annual cap decline of 4.2 MT. The UK plans to revise its cap no later than 2024 in line with a net zero-consistent target trajectory. Following the UK's departure from the EU, the UK's power sector will continue to participate in the Carbon Price Support with the minimum carbon price, which has remained at this level since 2018.

Country	Pricing Regime	Comments
		<ul style="list-style-type: none"> • The ETS will be reviewed in 2023 and 2028, and the UK government has indicated openness to linking with other schemes internationally in the future.
<p>United States</p>	<ul style="list-style-type: none"> • National: none currently • California: ETS • Hawaii: Carbon tax under consideration • Massachusetts: ETS • Oregon: ETS • Pennsylvania: ETS under consideration • Transportation and Climate Initiative Program (TCI-P): ETS under consideration • Washington: ETS 	<ul style="list-style-type: none"> • 12 states (that are home to over ¼ of the US population) have active carbon-pricing programs to reduce emissions. • These states make up the Regional Greenhouse Gas Initiative (RGGI) is the first mandatory cap-and-trade program in the US to limit CO₂ emissions from the power sector. • California: Implemented a cap-and-trade program in 2012 to help achieve an 80% reduction from 1990 levels by 2050. <ul style="list-style-type: none"> ○ In January 2021, changes included the addition of a price ceiling, the inclusion of two allowance price containment reserve tiers below the ceiling, reductions to the use of offset credits, and a steeper allowance cap decline to 2030. ○ CARB also launched the Climate Change Scoping Plan update process in 2021, which seeks to develop policy strategies to achieve 2030 and 2045 targets. • Hawaii: Has a carbon tax under consideration, and released a carbon tax study in February 2021. • Massachusetts: Implemented an ETS in 2018 which covers the power sector in the state. The scheme aims to ensure that covered power plants contribute to the state's target of reducing GHG emissions by 80% below 1990 levels by 2050.

Country	Pricing Regime	Comments
		<ul style="list-style-type: none"> • Oregon: Adopted The Climate Protection Program in December 2021, which places a declining limit on GHG emissions from suppliers of liquid fuels and propane and natural gas utilities. • Pennsylvania: Has an ETS under consideration. In 2019, the government signed an executive order to develop a proposal for an ETS covering the power sector, with the first draft being released in January 2020. The earliest start date for the state's ETS and its linkage to RGGI is envisaged to be 2022. • TCI-P: Has an ETS under consideration for northeastern and mid-Atlantic jurisdictions to develop a carbon pricing initiative for the transportation sector. In the second half of 2021, most of the participating states halted participation in the proposed plan, meaning that it is unlikely that the TCI-P will be implemented in its current form. The first compliance period is scheduled to commence on January 1, 2023, or at such later time as at least three jurisdictions have completed the legal processes required. • Washington: Adopted in May 2021, the Climate Commitment Act puts an ETS into place for the state starting in January 2023. The cap aligns with the state's legislated GHG emission limits, covering industry, energy and fuel suppliers with emissions over 25,000 tCO₂e/year.
<p>Vietnam</p>	<p>ETS</p> <ul style="list-style-type: none"> • Under consideration 	<ul style="list-style-type: none"> • In November 2020, Vietnam's revised Law on Environmental Protection (LEP) was issued,

Country	Pricing Regime	Comments
		<p>confirming the role of carbon pricing in the country's mitigation policy mix and providing the legal mandate for the development of domestic emissions trading schemes.</p> <ul style="list-style-type: none"><li data-bbox="997 495 1466 667">• In January 2022, the government issued a comprehensive set of regulations under the revised LEP and outlined a roadmap for their implementation.<li data-bbox="997 709 1500 810">• Vietnam anticipates launching a pilot ETS in 2026 before launching a full ETS in 2028.

Advancing the Global Carbon Pricing Challenge (GCPC) toward 60% coverage by 2030

Strategy: engage international partners and secure pledges to adopt new pricing systems, expand existing systems, and support emerging systems

Activities

Collaboration

Convening key players and ongoing initiatives

Commitments

Pledges from countries to take new actions to expand pricing

Communications

Forum to highlight countries' actions and share lessons learned

Areas of Focus

Partnership

Building an informal coalition to expand the group of countries using pricing to help meet their climate goals

Support

Facilitating technical exchanges and information sharing to support emerging pricing systems

Joining the Challenge

All participants commit to:

- Echo and support the global challenge and the 60% goal
- Work to advance the use of carbon pricing around the world

Carbon pricing leaders commit to:

- Find opportunities to strengthen domestic pricing systems over time
- Share technical support, lessons learned and best practices, and provide climate financing as appropriate

Prospect jurisdictions commit to:

- Explore opportunities to adopt a price on carbon pollution

Supportive organizations commit to:

- Tracking progress and building capacity for effective carbon pricing policies, including by developing and disseminating research

Milestones

Announcement

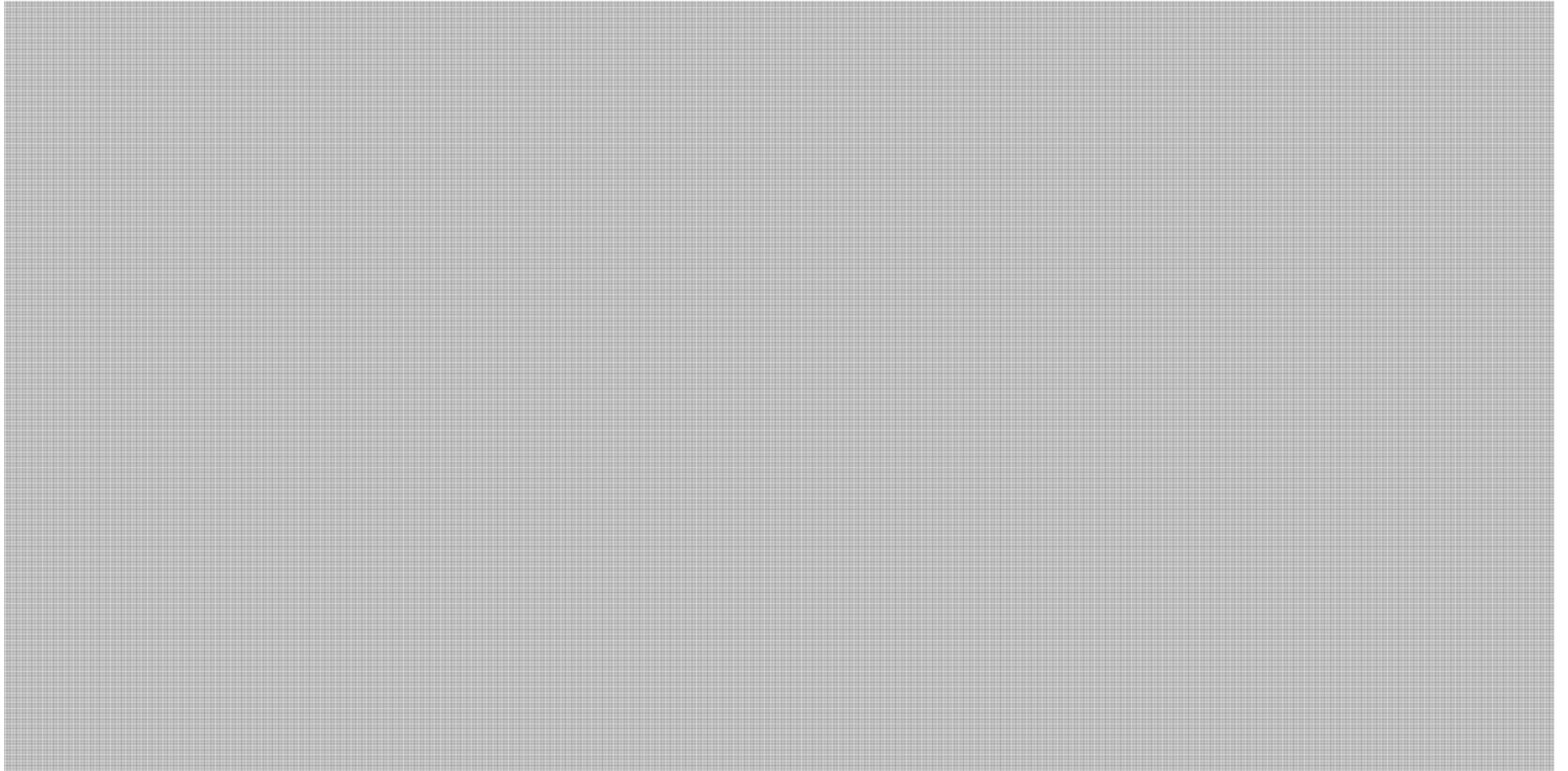
October 2021, COP26

Prime Minister Trudeau announces GCPC at leader-level discussion on carbon pricing

May 2022

Commentary by PM Trudeau in CPLC *Carbon Pricing Leadership Report* calling for strengthened commitments

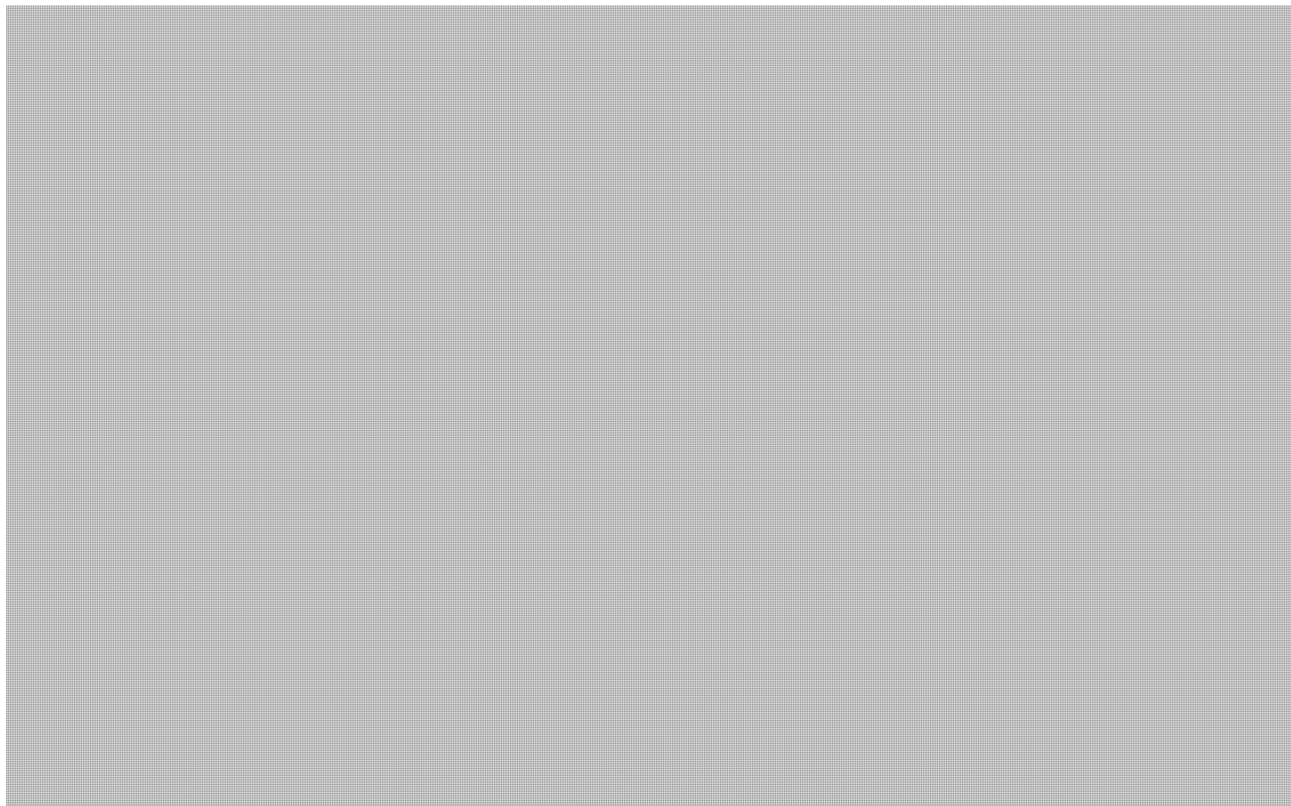
Positioning the Challenge



Partnership: Potential countries to engage

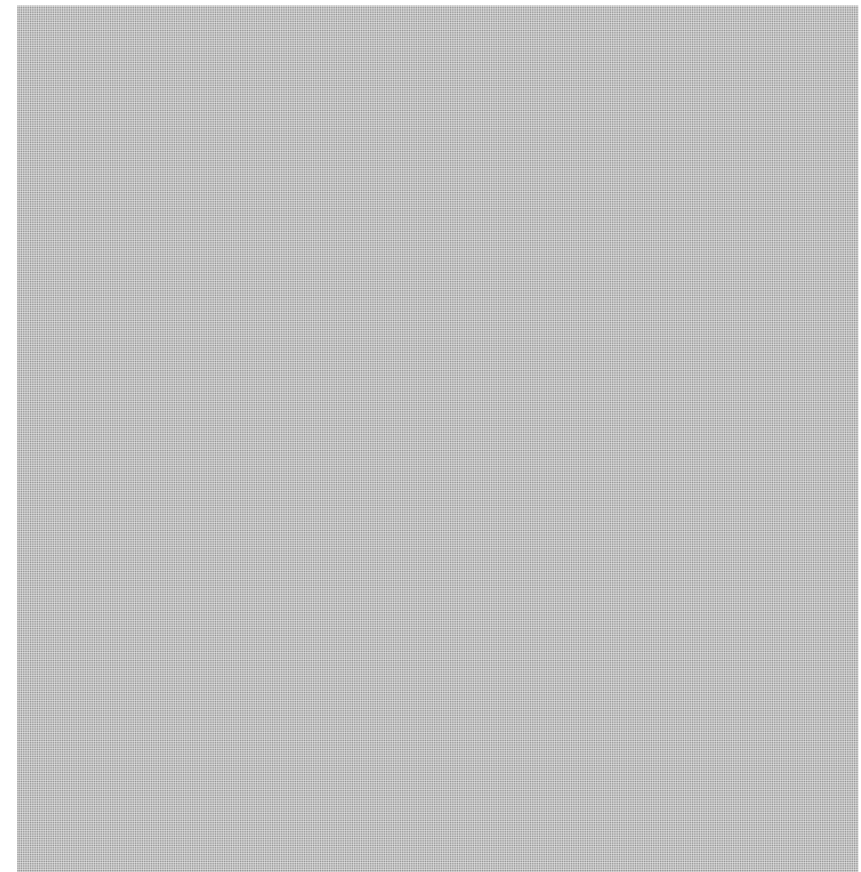
Priority partners:

PM letters in follow-up to CPLC report publication



Potential additional countries for targeted

outreach: bilateral engagement and invitation to COP27 event

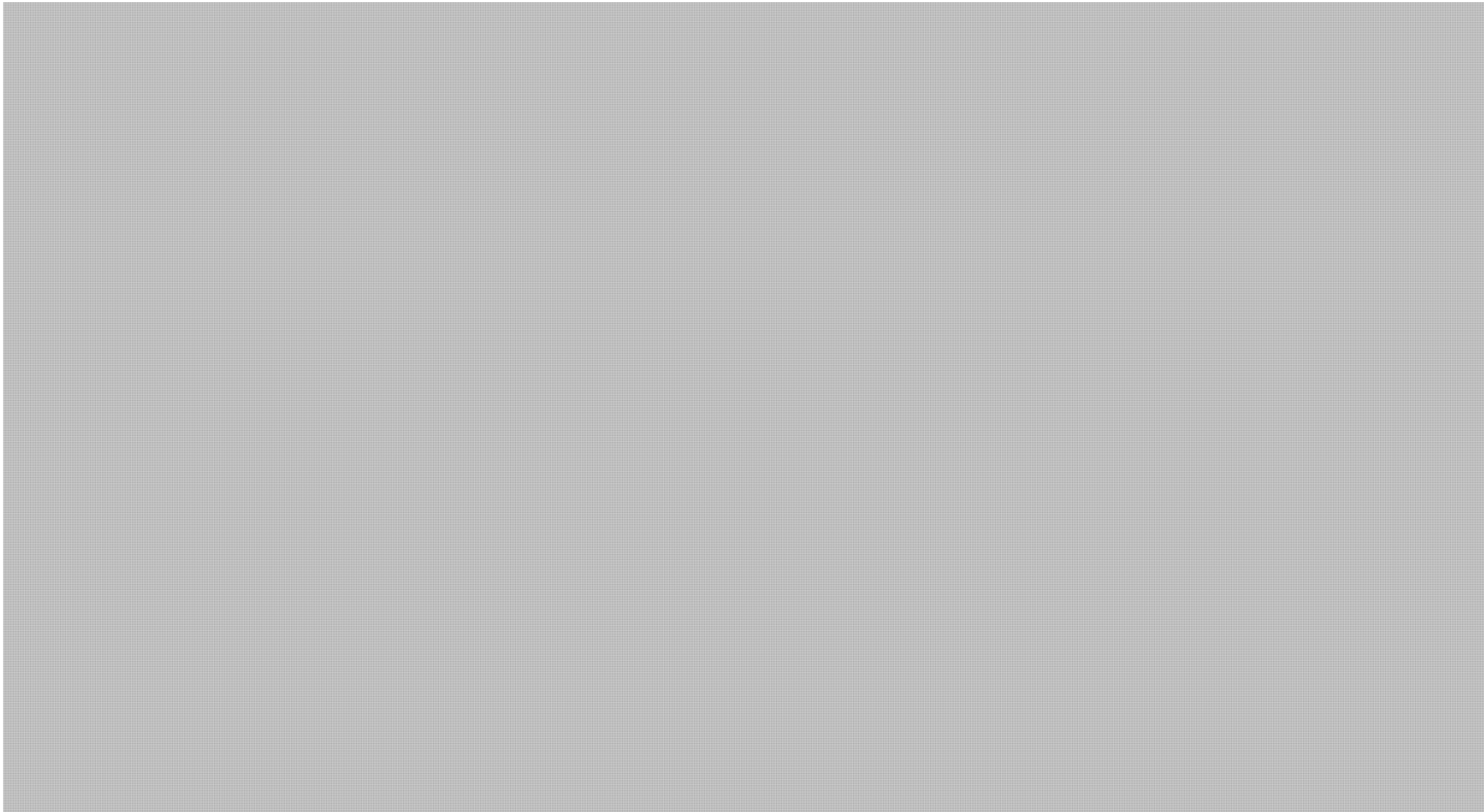


Key:

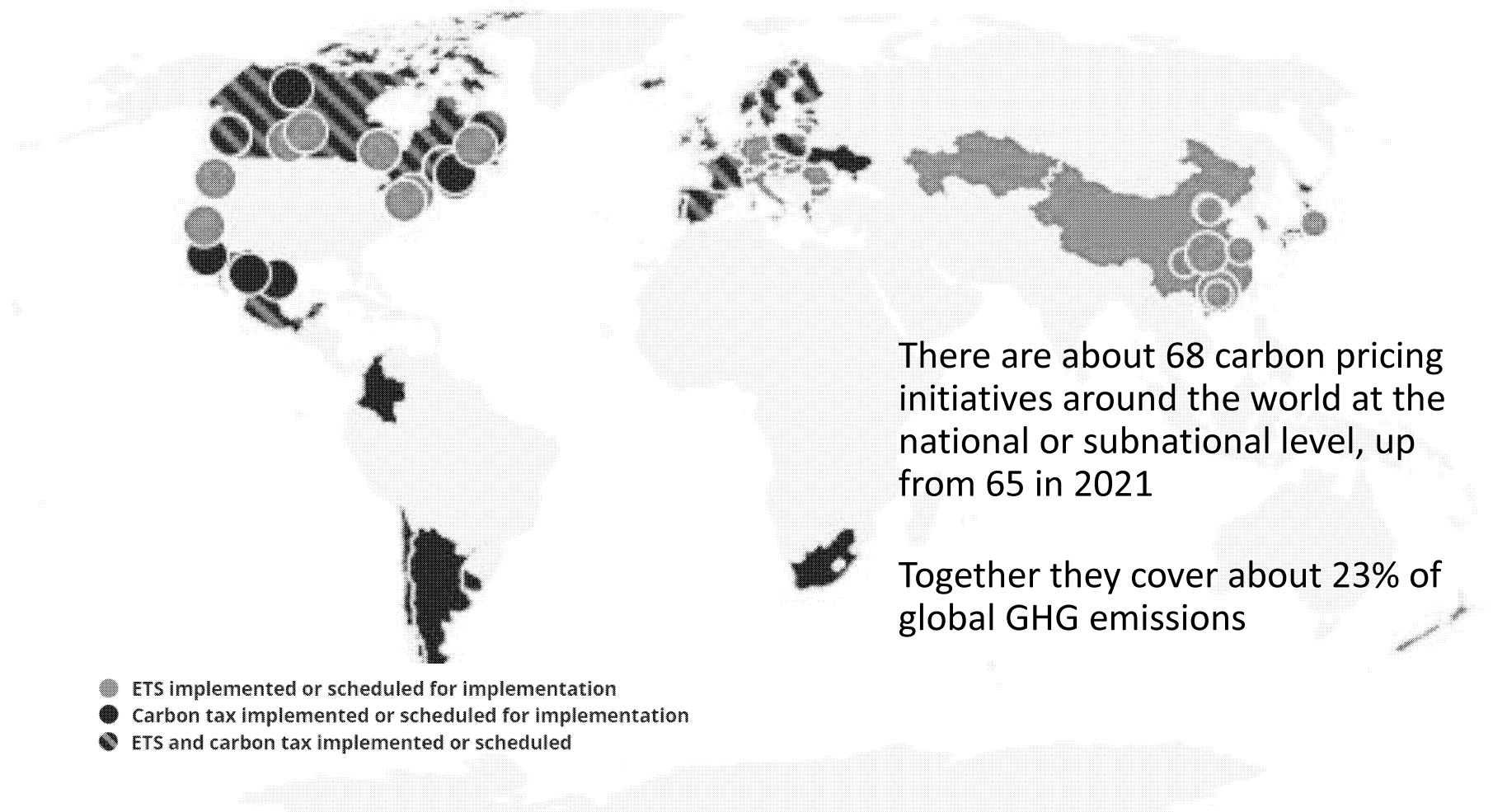
Carbon pricing in place

Carbon pricing under consideration

Support: Potential organizations to engage



Current pricing systems

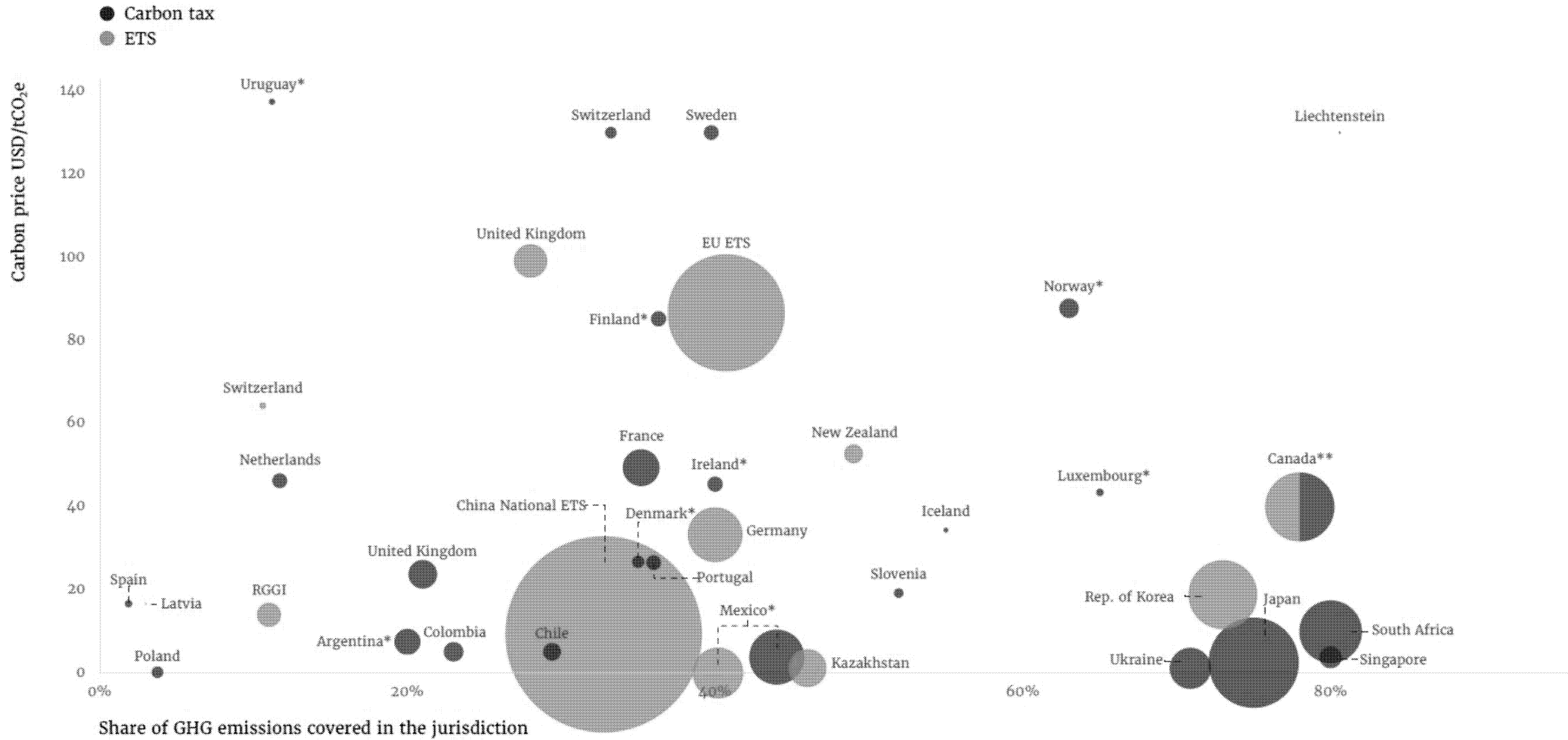


There are about 68 carbon pricing initiatives around the world at the national or subnational level, up from 65 in 2021

Together they cover about 23% of global GHG emissions

- ETS implemented or scheduled for implementation
- Carbon tax implemented or scheduled for implementation
- ETS and carbon tax implemented or scheduled

Source: World Bank Carbon Pricing Dashboard, May 2022
ETS = Emissions Trading System

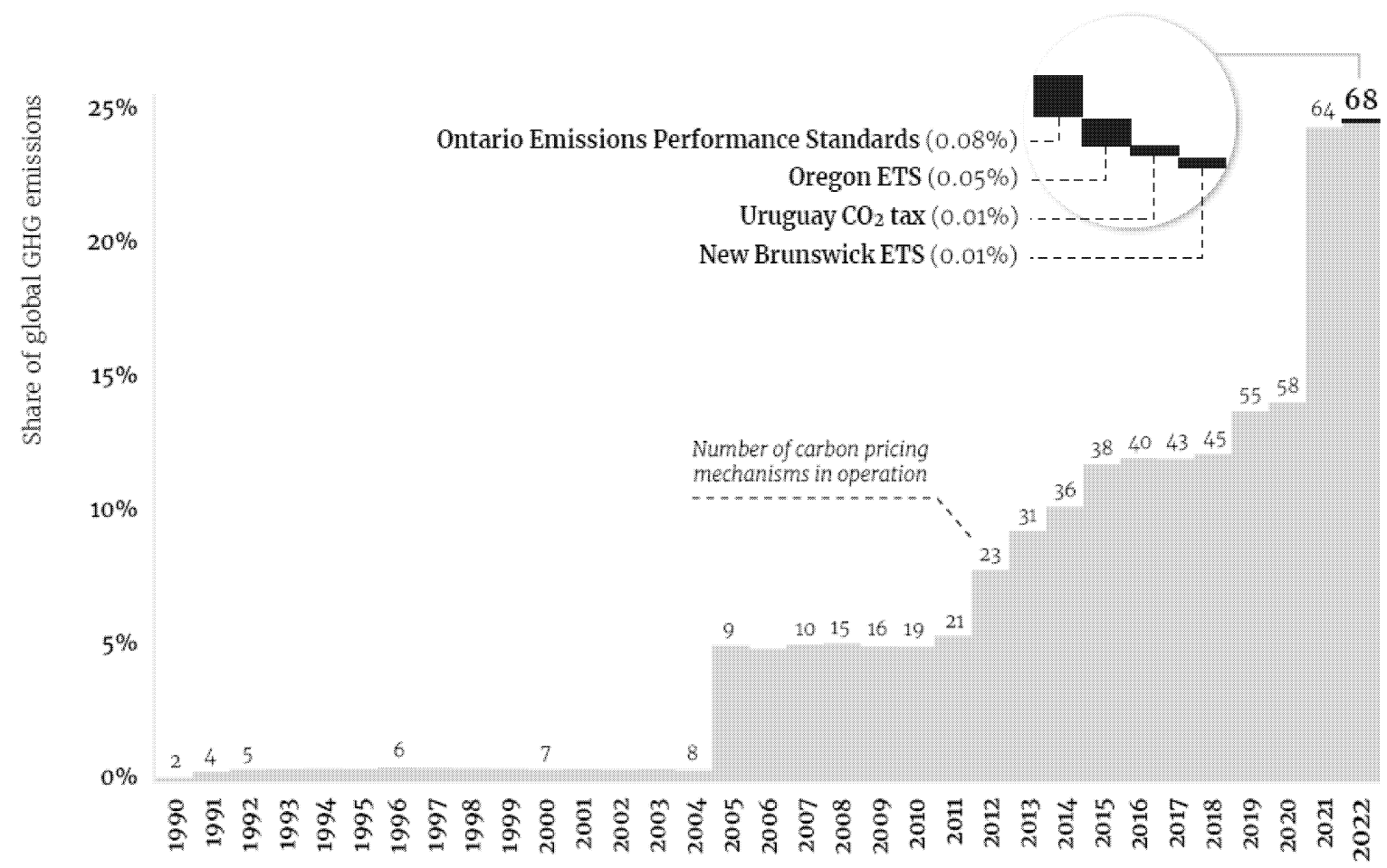


Bubble size represents absolute covered total greenhouse gas emissions.

*For CPIs that have multiple price levels, the price applying to the larger share of emissions is used.

**This is a composite presentation representing total emissions covered by carbon pricing instruments under the Pan-Canadian Framework. It includes a combination of ETS-like and carbon tax-like instruments, implemented at both provincial and federal levels.

FIGURE 2
Share of global GHG emissions covered by carbon pricing instruments



Carbon pricing: a global opportunity



Justin Trudeau
Prime Minister of Canada

I spent the first six years of my mandate as Prime Minister fighting for a price on pollution in Canada. And I did it because I know how much pollution pricing matters.

Our world is facing a climate crisis. And commitments alone are not enough. They must be backed up by strong policies and actions that deliver real results.

Putting a price on carbon pollution is widely recognized as the most cost effective policy to cut emissions. And if there were any doubt about this, Canada is the proof. Canada has had carbon pricing in place in every jurisdiction since 2019. Since then, we've seen first-hand how this policy has helped cut emissions while putting money back in people's pockets and spurring innovation.

We have set our carbon price trajectory all the way to 2030 to provide certainty for households and businesses. Our approach to pricing is flexible, adaptable, and focused on principles of equity. We use revenues to directly support households in a way that benefits low-income and vulnerable communities the most. We have different pricing systems in different parts of the country that are tailored to local economies. We have designed our systems to decarbonize industries while also supporting their competitiveness and limiting the risk of carbon leakage.

Pollution pricing is doable. It works, and it's worth fighting for —not just in Canada but around the world. After all, climate action isn't something any one country can do alone. That's why at COP26, I challenged countries to adopt or expand carbon pricing, with a goal of tripling global coverage from around 20 percent of global greenhouse gas (GHG) emissions today to 60 percent by 2030. In the months since, I have been heartened to hear support for this goal from leaders around the world.

Countries are working together to align policies and coordinate efforts, through organizations like the G7 Climate Change Mitigation Working Group, the International Monetary Fund, the Organisation for Economic Co-operation and Development (OECD), and the Carbon Pricing Leadership Coalition. Through initiatives like the World Bank's Partnership for Market Implementation, countries are sharing best practices and supporting emerging systems. The momentum is there. So let's keep going.

I am calling on governments and businesses to make new carbon pricing commitments. For those already pricing pollution, it could be a commitment to higher prices, expanded coverage, or technical support for emerging systems. In Canada, our price on carbon pollution will rise to \$170 per tonne by 2030. For those not yet pricing pollution, it could be a pledge to put a system in place. Canada will be ready with a new commitment of our own to help guarantee the future price of carbon pollution, so that businesses can plan investments knowing that the price will increase as planned.

I spent the first six years of my time as Prime Minister working for pollution pricing at home. I'm ready to spend the years ahead bringing this work to the world stage. Climate change is a daunting challenge that can only be met by fully deploying our best, most economically efficient tools. And that means backing a global effort to ensure it is no longer free to pollute anywhere. 🌍