













Introduction

The growing impacts of climate change are outpacing the global capacity to finance adaptation. According to the United Nations Framework Convention on Climate Change (UNFCCC), the gap between estimated adaptation needs and actual financial flows has widened to between CA\$261 (USD \$194) and CAD \$494 billion (US\$366 billion) annually, over 50% higher than previously projected. At the same time, developed countries are struggling to meet their existing finance commitments, with little sign of closing this gap in the near future. In this context, identifying effective, self-sustaining funding models for climate adaptation has become more urgent than ever.

Project overview

To meet the dual challenge of reducing emissions and adapting to climate impacts, Québec introduced carbon pricing in 2007, applying the "polluter pays" principle to generate dedicated climate funding. What began as a fuel tax evolved into a flexible cap-and-trade system (C&T), which was introduced in 2013 and linked to a similar program in California in 2014. In more than 12 years, Québec's system has raised over CA\$10 billion (USD \$7.45 billion), 100% of which has been reinvested into mitigation and adaptation. This funding has enabled major public policy efforts, strengthened the resilience of communities and infrastructure, and supported international adaptation in vulnerable countries. Québec's carbon market stands out globally for its innovation in design and operation and is increasingly seen as a model by other jurisdictions. It has helped Québec exceed its 2020 emissions target and positioned the province as a leader in international climate cooperation.

Key information

Location: Québec, Canada

Focus areas: Carbon market mechanisms, carbon pricing, climate finance, adaptation, mitigation, multilevel governance, capacity building, biodiversity mainstreaming.

Founded in: 2013

Investments: Implementation of environmental regulations by the Government of Québec's Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs (MELCCFP) – Development and implementation of adaptation and mitigation policies and measures thanks to C&T revenues, which are paid in full into a fund dedicated to the fight against climate change.

Sustainable Development Goals addressed:

SDG 13

Kunming-Montreal Global Biodiversity Framework targets addressed:

Target 8

Objectives of the Paris Agreement:

Article 2 and 6

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TABLE OF CONTENTS

Background and context	
Key activities and innovations	
Environmental impacts	10
Socioeconomic impacts	1:
Gender impacts	1
Policy impacts	1
Sustainability	1
Partnerships	10
Replication and applicability	1
About Regions4	2







BACKGROUND AND CONTEXT

Early Commitment to Carbon Pricing

The Government of Québec has long been convinced that carbon pricing is the best economic tool to effectively reduce GHG emissions and, at the same time, raise funds to finance mitigation and adaptation activities to address climate change.

In 2007, it became the first jurisdiction in North America to integrate a carbon price into its economy through a levy on fossil fuels. This measure generated revenues that nearly doubled the budget of the Québec Ministry of the Environment, supporting the province's first climate action plan (2006-2012). Québec's initial greenhouse gas (GHG) reduction target aligned with Canada's commitments under the Kyoto Protocol: 6% below 1990 levels by 2012.

When it came to addressing the issue of its carbon footprint, Québec was ahead of the curve, already having one of the lowest carbon footprints on the continent, thanks in particular to the choice of hydroelectricity that it had made several decades before. In fact, more than 99% of electricity and nearly 50% of all energy consumed in Québec today comes from renewable sources, mainly hydro and wind.

Québec therefore had to focus its efforts on the main emitting sectors, where reduction targets are considered difficult to achieve: industrial production, buildings and, above all, transportation. It became clear to the government that if it wished to further cut emissions and fund increasingly ambitious mitigation and adaptation measures, a more robust and comprehensive instrument was required. Rather than relying on a fixed carbon price through taxation, it sought a market-based approach in which the price of emissions is set by supply and demand and a declining cap on emissions provides an incentive to change behavioural patterns and decarbonize the economy. This system offers greater flexibility to businesses, allowing them to reduce emissions where it is most cost-effective. This approach emerged as the most promising and best aligned with Québec's expectations and objectives.

Carbon pricing is an economic policy that assigns a cost to emitting greenhouse gases. By making polluting activities more expensive, it encourages businesses and individuals to reduce their carbon footprint. Raised revenues are typically used to support mitigation and adaptation initiatives and measures.









Advancing Toward a Regional Carbon Market

To achieve deeper emissions reductions and fund more ambitious initiatives, Québec joined the WCI in 2008 and worked with new partners across North America to establish regional guidelines and rules for its emission trading scheme. Building on best practices from the early experiences of the European Union Emissions Trading System and the Regional Greenhouse Gas Initiative (RGGI) in the north-eastern United States, this collaboration led to the development of a unique and innovative carbon market.

Cap-and-trade is a market-based system designed to reduce GHG emissions. A limit (cap) is set on the total emissions allowed from covered sectors, and emitters receive or buy emission allowances. These allowances can be traded, creating a financial incentive for them to reduce their emissions cost-effectively.

Legislative Foundations and Public Support

To support the implementation of its C&T system, in 2011 Québec established a solid legislative and regulatory framework by amending the Environment Quality Act (EQA) and authorizing the program's launch in 2013. It also amended its Regulation respecting the mandatory reporting of certain emissions of contaminants into the atmosphere, including GHGs, to provide a comprehensive picture of key air emissions and ensure increased environmental monitoring.

These legislative changes followed numerous public consultations and training sessions for covered entities to secure the initiative's acceptability. Notably, the amendment to the EQA was adopted unanimously by the National Assembly, Québec's legislature, reflecting broad political and societal consensus in Québec in favour of combating climate change.

The <u>Regulation respecting the cap-and-trade system for GHG emission allowances</u> was adopted shortly after and has been updated regularly since then.









A Cross-Border Partnership with California

Québec's C&T system quickly expanded beyond its borders through a formal linkage with California in 2014, creating one of the most robust and well-integrated carbon markets in the world. The compliance instruments (i.e. allowances and offset credits) of each partner are fully fungible and may be traded by market participants. This unique collaboration between two subnational governments, each from a different country, has proven to be both technically sound and politically resilient. Over the years, the partnership has been sustained by strong institutional trust and shared environmental ambition.

This environmental collaboration between California and Québec has also led to the creation of a non-profit organization, WCI, Inc., jointly managed by the two governments to provide technical and administrative services, including joint auctions platform and the establishment of an emissions trading platform (market registry).

In June 2023, Québec's Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs (MELCCFP) and the California Air Resources Board (CARB) jointly launched a review of their respective cap-and-trade programs. Public webcasts were held to consult stakeholders, and in October 2024, Québec published a <u>market notice</u> outlining proposed regulatory amendments. These are expected to be formally introduced in late 2025.

Carbon Revenues as a Driver of Climate Action

Thanks to substantial revenues from the auctions of allowances, the C&T system has become the pillar of Québec's integrated approach to fight climate change by allowing for the funding of a whole range of climate actions and complementary policies and measures. These funds initially supported the 2013–2020 Climate Change Action Plan and now finance the Plan for a Green Economy 2030 (PGE), which guides the province's mitigation and adaptation efforts, and which includes annual updates through a rolling five-year implementation plan, allowing for flexible, responsive action.

The 2030 Plan for a Green Economy defines the concrete climate actions to be carried out by the various partner ministries and public agencies in terms of mitigation and adaptation. This new plan innovates by being linked to a five-year implementation plan, which is updated annually, a demanding but valuable exercise that allows for adjusting the proposed actions and allocated budgets as needed. Through this approach, the government gives itself the flexibility to modulate its efforts based on progress made, the economic context, and advances in knowledge and technology.

Key adaptation priorities include assessing risks to public infrastructure (buildings, transportation networks, hydroelectric dams, etc.), supporting local and regional climate adaptation plans, and strengthening public health systems across Québec's 18 health and social care regions. The government has so far allocated CAD\$ 1.8 billion (USD\$ 1.42 billion) to adaptation initiatives and measures, including CAD\$ 1.23 billion (US\$ 0.97 billion) under the 2024–2029 implementation plan of the 2030 PGE.







KEY ACTIVITIES AND INNOVATIONS

How does the Cap-and-Trade System Work

Québec's C&T System is recognized internationally for its innovative design and operational practices. It is designed to reduce GHG emissions while supporting businesses in their transition to cleaner practices. Each year, the government sets a maximum limit—or "cap"—on the number of allowances put into circulation, thus limiting GHG emissions for the sectors covered over a given period. This cap decreases progressively, covering sectors such as industry, transport, and buildings, and ensuring that Québec meets its emission reduction targets over time.

Emitters (or entities covered by the system) must hold a number of compliance instruments equal to their GHG emissions at the end of each three-year compliance period (one compliance instrument equals one ton of GHG emissions), and surrender them to the government, which then retires them from circulation. Allowances can be obtained through government auctions (held four times a year) or purchases from market participants, while offset credits may be obtained from project promoters (or resellers) who use government-approved protocols to reduce GHG emissions in sectors not covered by the C&T system. Some companies strongly exposed to national or international competition receive free allowances to help maintain competitiveness and prevent "carbon leakage", but the number of free allowances gradually declines over time. If a company emits less than its allocated allowances, it can sell its surplus on the carbon market.

By putting a price on carbon, the system integrates hidden environmental costs into business decisions and sends a clear price signal across the economy. This not only encourages behaviour change and investment in low-carbon technologies but also improves energy efficiency and strengthens competitiveness.

A full detailed explanation is available on the website of the Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs.









Key Innovations:

Québec's C&T system has distinguished itself from similar systems worldwide through several innovations in design, operation, carbon regulation, and administrative management, many of which are now recognised as best practices in market mechanisms. These innovations include:

A Dedicated Fund for Climate Action: Québec directs all C&T revenues into a fund exclusively used for climate action. Originally named the Green Fund and renamed the Electrification and Climate Change Fund (ECCF) in 2020, it has received over CA\$10 billion (US\$7.40 billion) since 2013. The fund has been supporting mitigation and adaptation initiatives from the 2020 Climate Change Action Plan and now the 2030 PGE, helping municipalities, businesses, and citizens reduce emissions and build resilience to climate change.

Broad Coverage: Québec's C&T covers about 76% of its GHG emissions. It applies to:

- Large industrial emitters (over 25,000 MT CO2e/year): emissions from combustion, processes, and other sources from aluminium smelters, cement plants, refineries, chemical plants, steel mills, mines, etc.
- Fuel Distributors: emissions from land transport, industrial combustion from non-covered industrial emitters, and residential, commercial, and institutional sources
- Electricity producers and importers (GHG emissions from electricity production ≥ 25,000 MT CO₂e/year)
- Voluntary emitters (Industrial facilities with annual emissions between 10,000–25,000 MT CO2e/year)

The coverage of the C&T system aligns with the MELCCFP 2022 Québec GHG Emissions Inventory, which shows that major emissions come from transportation (43.3%), large industrial emitters (31%), buildings (9.5%), and electricity (0.6%). Agriculture (10%) and residual materials (5.6%) are not directly covered by the system but are indirectly included through fuel use. Additionally, the system allows emitters to offset up to 8% of their emissions by purchasing credits from reduction projects in these sectors, helping to lower compliance costs.

Forest Protocol Innovation: In 2022, the Government of Québec adopted a regulation allowing afforestation and reforestation projects on private land to generate carbon offset credits. What differentiates the approach outlined in the Québec Forest Protocol from other existing methods—such as REDD+ and improved forest management protocols—is that it issues credits not only based on the amount of CO₂ removed from the atmosphere, but also on the actual climate benefit of keeping that carbon out over time. By focusing on real, measurable climate impacts that already took place rather than anticipated climate benefits like most current offset removal programs, the protocol ensures that each credit fully offsets the effect of one ton of CO₂ over a 100-year period from the moment it is issued, representing real and lasting environmental gains from the moment of issuance.

Minimum Auction Price: To ensure a steady price signal and drive behavioral change, Québec and California jointly introduced a minimum auction price for carbon allowances, starting at \$10 in each currency and increasing annually by 5% plus inflation. The minimum price is adjusted before each auction based on the latest exchange rate, and the higher of the two is used. In 2025, Québec's minimum price reached US\$25.87 (CA\$36.72), while allowances put up for auction in August 27, 2025 sold at US\$28,50 auction (CA\$39,84). This mechanism prevents prices from collapsing (as seen in other carbon markets) and provides predictability to the







system. It also guarantees governments a stable, predictable source of funding for climate action.

Reserve of allowances: The minimum price is not the only price stabilization mechanism in the system. The C&T system creates a pool of allowances that may be partly intended for covered entities that fail to obtain such allowances below a certain price to comply with their regulatory obligations. The government can thus initiate a private sale (called 'sale by mutual agreement of the Minister') allowing them to have access to the allowances of the reserve. This was created as soon as the SPEDE was implemented by removing 1% of the emission unit budgets for the years 2013 and 2014, 4% of the emission unit budgets for the years 2015, 2016 and 2017, 7% of the emission unit budgets for the years 2018, 2019 and 2020, and 4% for the year 2021 and the following years. When the pool was created, the allowances that may be made available to emitters were divided into three equal categories. In 2025, the prizes for each of the categories are as follows, with the category C prize being the maximum prize:

A: CA\$75.59 B: CA\$97,13 C: CA\$118.65

Allowances purchased in the private sale must be used for compliance by the entities that own them and cannot be traded on the market. To date, the government has not used this mechanism, but it could do so in the future if prices were to spiral out of control.

Electronic Registry of Compliance Instruments: To facilitate transparent tracking, Québec and California jointly operate the Compliance Instrument Tracking System Service (CITSS) via WCI, Inc. This bilingual centralized electronic platform enables:

- Account creation and management for all market participants;
- Real-time tracking of compliance instruments in and between accounts;
- Secure transfers or trades of compliance instruments between market participants;
- Surrendering of compliance instruments for compliance purposes.

CITSS simplifies operations for both governments and regulated entities, supporting the integrity and efficiency of the system.

Market Safeguards: Purchase and Possession Limit: To avoid monopolistic behavior or manipulation, Québec's C&T system imposes purchase and holding limits on allowances at auctions. Entities under common ownership are grouped and assigned collective limits, which must be shared among subsidiaries. These rules preserve competition and ensure fair market access.

Free Allocation for At-Risk Industries: For emissions-intensive and trade-exposed (EITE) industries like steel, cement, and aluminum, Québec offers free emission allowances to mitigate the risk of carbon leakage. These are based on production and emissions intensity, with annual reductions in free allocation rates to maintain incentive for performance improvement. Since 2024, some allowances that used to be given for free are sold at auction with proceeds returned in consignment to companies, provided the government approves their proposals to reinvest the money in GHG-reduction efforts or innovation, such as emission reduction projects, as well as feasibility or research and development studies aimed at curbing their carbon footprint.







ENVIRONMENTAL IMPACTS

Accounting for Emissions Trading between Québec and California

Québec's C&T system is essential for calculating Québec's net GHG emissions and verifying whether emission reduction targets have been met. This calculation is based on two components:

- Québec's GHG emissions inventory
- The annual net flow of compliance instruments trades between Québec and California under their linked carbon market

The net flows aim to make adjustments to the level of emissions recorded in Quebec's GHG emissions inventories. These adjustments will be positive or negative depending on whether Quebec companies covered by the C&T system are, overall, net sellers or net buyers of compliance instruments on the linked carbon market.

To fairly allocate emission reductions between them and calculate the net flow of their trades of compliance instruments, Québec and California have developed an accounting methodology aligned with Article 6 of the Paris Agreement. The mechanism is based on the proportion of traded and surrendered compliance instruments by covered entities, except with regards to offset credits where the origins of surrendered and retired offset credits created by Parties are used to calculate net flows. To avoid the double counting or double claiming of emission reductions, the Parties have agreed to make corresponding adjustments when accounting for net flows and assessing progress toward meeting their respective emission reduction target.

In 2020, using that methodology, Québec surpassed its emissions target of 20% below 1990 levels, achieving:

- 74.0 Mt CO₂e emissions in its GHG inventory for that year or 13.2% below 1990 levels;
- A net purchase of 11.4 million California emission allowances, representing imported reductions;
- A net emissions balance of 62.6 Mt CO₂e or 26.6% below 1990 levels.

A similar approach will be used for the 2030 target year, where Québec aims to cut emissions by 37.5% below 1990 levels.





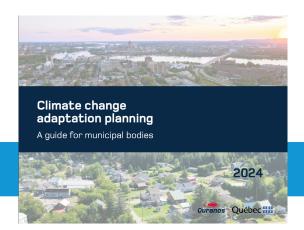




Adaptation investments made with C&T revenues

Since 2007, Québec has used carbon pricing revenues to build resilience to climate impacts. The 2024–2029 Implementation Plan, the fourth of its kind, earmarks CAD\$1.23 billion (US\$910.2 million) from the ECCF to fund key adaptation actions through 2030, structured around major hazards: flooding, heatwaves, coastal erosion, and wildfires. Measures announced or underway include:

Accelerating Local Climate Transition (ATCL): A C\$500M, 5-year program helping all Québec municipalities develop climate plans by 2030, including GHG inventories, risk assessments, and mitigation/adaptation measures, supported by tailored methodological guides:

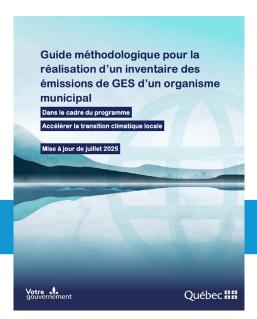


Guide to developing a climate plan

Developing a climate change adaptation plan

The guide to developing a climate change adaptation plan is specifically designed to support municipal organizations in Quebec in their adaptation processes by helping them assess and manage the risks associated with climate change.

Guide to developing a climate change adaptation plan



Guide for Conducting a GHG Emissions Inventory for a Municipal Body







The <u>Flood Resilience and Adaptation Program</u>: Funds projects which aim to increase the safety of people and the protection of property from flooding in built-up areas. The program also aims to increase the resilience of communities and ecosystems in the face of the intensifying risks posed by climate change.

The OASIS Program: Funds greening projects in municipalities and Indigenous communities to reduce impacts from heatwaves and heavy rainfall.

The <u>Coastal Erosion and Submersion Project Office</u>: Is mandated to assess adaptation issues on the ground, define action plans that complement existing plans, promote consultation among stakeholders, and support and assist municipalities in implementing the actions outlined in the action plans. It also supports the implementation of adaptation projects to address coastal erosion and flooding.

Agriclimat Project: Supports farmers in integrating climate adaptation into agricultural practices, improving soil health, water management, pest control, and irrigation, through collaborative tool development.

The International Climate Cooperation Program (ICCP): Launched in 2016, the program aims to contribute to international efforts to combat climate change, particularly in terms of adaptation, in vulnerable French-speaking countries. To date, it has funded up to 65 projects from Quebec NGO's in collaboration with local partner organizations. It has directly supported more than 160,000 people in 17 countries and provided a total of nearly C\$50 million in aid. The PCCI received the Global Climate Action Award from the United Nations in 2019.

In addition, government departments and agencies are being called upon to strengthen the resilience of Québec's economy, infrastructure and population to the impacts of climate change. For example, some are responsible for conducting an assessment of the climate risks associated with strategic infrastructure and priority government services and assessing the potential costs of climate change impacts on their infrastructure.









Several projects are also underway aimed at:

- Integrating adaptation into public administration;
- Integraing adaptation into land use planning;
- Renewing the Land Flood Protection Plan and modernizing the Regulatory Framework for Flood Management;
- Establishing a trajectory for adaptation to coastal hazards;
- Integrating climate change issues into forest management;
- Continuing to develop knowledge of permafrost thaw.

It should also be noted that the Government of Québec has used carbon market revenues over the years to make donations to multilateral climate funds, including the <u>Adaptation Fund</u> (C\$33 million) and the Least Developed Countries Fund (C\$6 million) to help vulnerable communities in developing countries adapt to the impacts of climate change. These revenues have also contributed to financing international initiatives such as RegionsAdapt and to building various partnerships that strengthen collective climate action.

SOCIOECONOMIC IMPACTS

Investing to Cool Urban Heat Islands: The ECCF funds green infrastructure projects to combat urban heat islands. Québec also offers an interactive geomatics map showing urban heat and cool zones, helping target priority areas for risk reduction.

Protecting Public Health: From 2024 to 2029, Québec's public health departments receive funding to continue assessing climate-related health risks. By 2030, all 18 health and social care regions are expected to have regional public health adaptation plans.

Integrating the principle of just transition: Québec is working to embed the principle of just transition across its climate actions, guided by a recently published Fact Sheet.

Mobilizing Civil Society: The 2022-2027 Mobilization Strategy for Climate aims to engage Québec society in the climate transition by:

- Understanding public attitudes and motivations;
- Strengthening cooperation among organizations;
- Raising awareness to foster acceptance of climate measures;
- Encouraging widespread climate action for a ripple effect.

The <u>Québec Climate Action Program</u> funds citizen-led projects that engage businesses, youth, and municipalities through education and support.



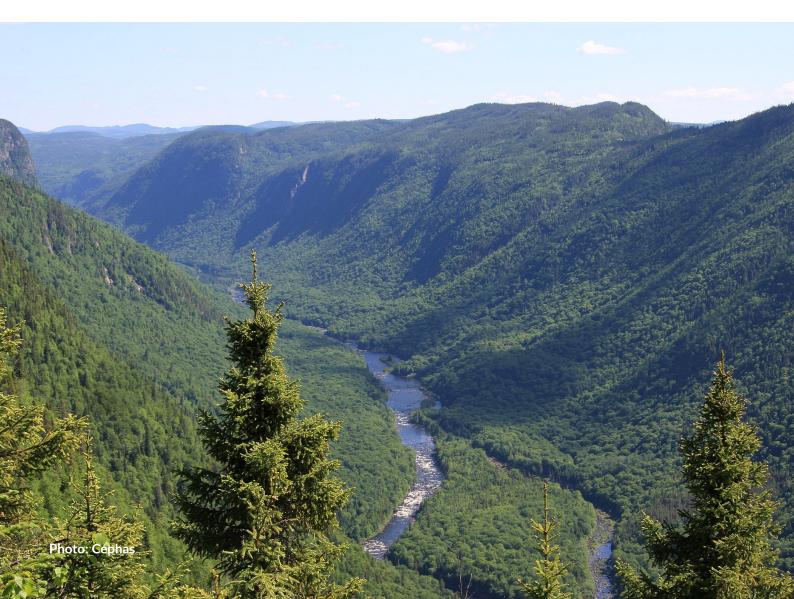




Since 2012, the ECCF has supported civil society participation in international climate negotiations and Conferences of the Parties (COP) to the UNFCCC through calls for projects, raising awareness in Québec on the issues debated during the COPs, promoting Quebec innovative climate solutions and approaches on the international stage, and empowering a new generation of climate advocates.

GENDER IMPACTS

The above-mentioned ICCP supports projects that promote the fight against climate change and the development of vulnerable Francophone countries, in accordance with certain general principles. These include the requirement that the project respond to the needs expressed by local populations and promote a participatory approach, particularly that of women and youth, with mutual respect and recognition of local know-how. Strengthening the capacities of women and women's associations to adapt their activities to the impacts of climate change, promoting the rights of women and girls, actions contributing to gender equality and the role of women as agents of change are at the heart of a large number of projects funded under the 5 calls for projects held so far. In addition, it is relevant to mention that Québec civil society is increasingly interested in gender issues in international climate negotiations. During the two most recent calls for projects to promote the participation of Québec civil society at COP 29 in Baku and at COP 30 in Belém, four selected projects focused on women's rights and voices in the context of climate change adaptation.









POLICY IMPACTS •

Over the years, Québec's C&T System has undergone several regulatory refinements, partly in response to lessons learned through collaboration with California. These adjustments have strengthened the harmonization of both markets and led to an expansion of the Minister of the MELCCFP's powers to better oversee implementation.

A major milestone came in 2020 with the adoption of the <u>Act Mainly to Ensure Effective Governance in the Fight Against Climate Change and to Promote Electrification.</u> This Act formally designates the Minister of the MELCCFP as the government's advisor on climate change, entrusting the holder of that portfolio with ensuring coherence across ministerial policies and guaranteeing alignment with Québec's GHG emissions reduction targets.

- Under the Act, the Minister is responsible for:
- Ensuring government-wide compliance with GHG reduction objectives;
- Coordinating and integrating climate-related measures across ministries and agencies;
- Developing a comprehensive climate change framework policy;
- Establishing a standing advisory committee to provide expert guidance on policies, programs, and strategies;
- Advising ministers and public bodies when proposed measures conflict with the principles of the climate framework policy.

To reinforce these policy ambitions, the <u>Management Framework for the 2030</u> PGE outlines responsibilities, monitoring systems, and financing mechanisms. It ensures coordinated implementation of climate actions across ministries, standardizes practices funded through the ECCF, and provides controls to track performance against Québec's targets.

SUSTAINABILITY

The C&T system is currently in its 13th year. It was designed to navigate various ups and downs in demand for emission allowances and economic challenges such as those related to the COVID-19 pandemic. While market prices for emission allowances have fluctuated, the long-term trend remains upward, ensuring a steadily strengthening carbon price signal. Over the years, the system has been maintained by successive governments led by three different political parties. It has also retained the support of political parties represented in the National Assembly, environmental pressure groups, and, above all, the emitters subject to its regulation. These emitters have complied with the requirements set out in the system, surrendering the necessary compliance instruments to cover their GHG emissions at the end of the first four compliance periods (2013–2014, 2015–2017, 2018–2020, and 2021–2023). The same level of performance has been observed in California, Québec's partner in the WCI carbon market.

This broad support is currently being tested, following the federal government's abandonment of carbon pricing for individuals, leaving Québec as the only Canadian province to impose a carbon price on fossil fuels. Despite this challenge, Québec is staying the course. The climate emergency remains, and no major relocation of companies or job losses have been attributed to the C&T system since its inception.

On April 9, 2025, the National Assembly of Québec unanimously adopted a motion reaffirming its commitment to Québec's C&T system.







PARTNERSHIPS

The Government of Québec has forged numerous partnerships to promote carbon pricing—particularly carbon markets—as a tool to combat climate change. It also aims to engage interested governments in implementing compatible carbon markets and to highlight the role of subnational governments like Québec in international climate action.

Québec is therefore active in several international organizations and forums, including:

- The <u>Carbon Pricing in the Americas</u> (CPA) forum: Québec co-chaired this forum from 2020 to 2024. CPA brings together 19 national and subnational members and more than a dozen non-governmental partners, facilitating knowledge sharing and resource pooling to promote carbon pricing initiatives across the Americas.
- The <u>International Carbon Action Partnership</u> (ICAP): Québec has co-chaired ICAP since October 2024, having previously held the co-chair position from 2014 to 2018. ICAP unites 34 member governments and 8 observers that have implemented or plan to implement carbon markets. Its mandate is to share best practices and encourage synergies among members.
- The World Bank's Partnership for Market Implementation: Québec serves as a knowledge partner supporting over thirty countries in developing and implementing carbon pricing instruments. When interest from governments in Québec's carbon market model becomes concrete or potential collaborations arise, it formalizes this collaboration through international declarations or more formal agreements. Québec has signed such international cooperation instruments with California (its market partner), New Zealand, Chile, and Mexico, among others.

In addition, Québec maintains informal exchanges with many partners, including New York State, the United Kingdom, France, the European Union, China, Chili, Panama, Mexico and several Mexican states. Washington State has also announced its intention to link its carbon market with those of Québec and California, following a favourable public consultation. This linkage could come into effect in 2027. Finally, recent meetings at international events have revealed growing interest in Quebec's expertise from several countries in Latin America and Asia.









REPLICATION AND APPLICABILITY

The adoption of emissions trading systems is accelerating globally. According to the International Carbon Action Partnership (ICAP) 2025 Status Report, 38 carbon markets, whether at the national or subnational level, are now in operation, covering just over 10 gigatons of CO_2 equivalent, about 19% of global GHG emissions. Together, these systems span one-third of the world's population and account for 58% of global GDP.

These mechanisms have raised approximately US\$373 billion since 2017, including US\$70 billion in 2024 alone. The growing role of carbon pricing highlights its value not only as an environmental tool, but as a financial and policy instrument.

Québec's C&T system is one of the longest-running and most comprehensive models, offering several replicable features. It shows that success depends not just on market design, but on the way it is implemented and managed over time. Key elements of C&T systems in general that other governments can adopt include:

Clear Legal and Institutional Framework:

- Establish early legislation that provides legal certainty.
- Assign clear responsibilities across ministries and regulatory agencies.

Robust Governance and Transparency Mechanisms:

- Ensure transparent allocation methods and strong monitoring, reporting, and verification (MRV) systems.
- Provide public access to data to build trust and accountability.

Flexibility to Evolve:

- Allow the system to start with certain sectors and expand gradually.
- Design mechanisms that enable transition from intensity-based to absolute reduction targets.

Integration with Other Instruments:

- Enable complementarity with carbon taxes, crediting mechanisms, or other market tools.
- Allows for an integrated approach by aligning with complementary climate and energy policies and strategies.

Linkage Potential:

• Ensure compatibility with external markets (as Québec did with California), which increases liquidity and reduces costs.

Stakeholder Engagement and Public Communication:

- Involve industry, local governments and civil society in the design phase.
- nvest in communication strategies to ensure public understanding and support.

Revenue Recycling and Co-benefits:

Channel auction revenues into climate and social programs to enhance legitimacy and political durability.







So far, around 20 governments worldwide—including several emerging economies—are developing or considering adopting cap-and-trade systems. These approaches vary: some prioritize reducing emissions intensity before committing to absolute reductions, while others use hybrid models that combine instruments such as C&T with carbon taxes and credit mechanisms:

- China, the world's largest GHG emitter, is expanding its national intensity-based carbon market to cover the power sector and is weighing a transition toward absolute reduction targets.
- India has introduced regulations for an intensity-based market, which it plans to complement with a carbon credit system.
- Indonesia has operated a C&T system for two years.
- Brazil established the legal basis for a C&T system in December 2024, expected to be launched in the coming years.
- Turkey, Vietnam, and Chile are preparing pilot projects.
- The European Union will introduce a second ETS in 2027 for buildings, road transport, and other industrial sectors not yet covered.
- Japan currently runs a voluntary ETS, which will become mandatory in 2026.

In conclusion, the trend towards the adoption and expansion of market-based mechanisms to reduce GHG emissions and finance adaptation and mitigation actions on the way towards carbon neutrality is therefore undeniably on the rise, and Québec's C&T system is a precursor and model that many governments are still seeking to emulate today. The Government of Québec is also one of the only governments in the world to have created a fund specifically dedicated to the fight against climate change, choosing not to put revenues of its carbon market into general funds with other governmental missions and goals. A dedicated fund makes sure that the government does not bypass its climate commitment by focusing on other priorities or by finding reasons to reduce its climate interventions according to the circumstances of the moment.

Québec's integrated approach to the fight against climate change has been successful, as between 1990 and 2022, GHG emissions fell by 7.2% while the population grew by 23.9% and gross domestic product by 84.3%, proving that measures such as carbon market mechanisms do not hinder economic growth. In fact, Quebec's C&T system has stimulated the creation of new economic development sectors, particularly in electric mobility, such as the battery industry and other green technologies. Finally, it has contributed to a sixfold increase in the amount of money allocated to climate change adaptation in Quebec since 2012!

The Québec carbon market and the dedicated fund created by the government are examples of good practices that other subnational governments and even national governments would likely benefit from emulating and the remains willing to share its expertise and best practices in these areas with Regions4 and RegionsAdapt members. The excellence and performance of the C&T system have also opened many doors and international platforms for Québec, reflecting the strong interest of the international community in Québec's expertise and experience in this field.

FOR MORE INFORMATION

To learn more about this project, contact us by email at info@regions4.org to schedule an informational meeting, clarify your questions, and receive support for the implementation of similar projects.







ABOUT REGIONS4

Regions4 (formerly known as nrg4SD) is a global network that exclusively represents regional governments (states, regions, and provinces) in

UN processes, European Union initiatives, and global discussions on climate change, biodiversity, and sustainable development. Regions4 was established in 2002 at the World Summit in Johannesburg and currently represents more than 40 members from 20 countries across 4 continents. Through advocacy, cooperation, and capacity building, Regions4 empowers regional governments to accelerate global action.

For more information, visit: www.regions4.org @Regions4SD | #Regions4Biodiversity #RegionsVoice

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