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STATE AND TRENDS OF carbon pricing

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PMI PARTNERSHIP FOR MARKET IMPLEMENTATION

Ecosystem Marketplace A FOREST TRENDS INITIATIVE

ICAP International Carbon Action Partnership

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Abbreviations and acronyms

ACCU	Australia Carbon Credit Unit
BP	British Petroleum
CBAM	The EU's Carbon Border Adjustment Mechanism
CCPs	Core Carbon Principles
CDM	Clean Development Mechanism
CERs	Certified Emission Reductions
CFTC	Commodity Futures Trading Commission
CO_2e	Carbon dioxide equivalent
COP28	28th annual Conference of the Parties of the United Nations Framework Convention on Climate Change
CORSIA	Carbon Offsetting and Reduction Scheme for International Aviation
EMDEs	Emerging market and developing economies
ETS	Emissions trading systems
FCPF	Forest Carbon Partnership Facility
GHG	Greenhouse gas emissions
I4CE	Institute for Climate Economics
ICAO	International Civil Aviation Organization
iCRAFT	Innovative Carbon Resource Application for Energy Transition Project for Uzbekistan
ICVCM	Integrity Council for the Voluntary Carbon Market
IETA	International Emissions Trading Association
IMF	International Monetary Fund
IMO	International Maritime Organization
IPCC	The Intergovernmental Panel on Climate Change
ISDA	International Swaps and Derivatives Association
ITMO	Internationally Transferred Mitigation Outcomes
LoAs	Letters of Authorization
$MtCO_2e$	Metric tons of carbon dioxide equivalent
NDCs	Nationally determined contributions under the Paris Agreement
nECR	Net effective carbon rates
OBPS	Output-Based Pricing System
OECD	Organisation for Economic Co-operation and Development
OTC	Over-the-counter
PoAs	Programmes of Activities
REDD+	Reducing Emissions from Deforestation and Forest Degradation
RGGI	Regional Greenhouse Gas Initiative
SBTi	Science Based Targets initiative
tCO_2e	Tons of carbon dioxide equivalent
TCP	Total carbon price
T-VER	Thailand Voluntary Emission Reduction Scheme
UNFCCC	United Nations Framework Convention on Climate Change
UNIDROIT	Unification of Private Law
USD	United States dollar
VAT	Value-added tax
VCMI	Voluntary Carbon Markets Integrity Initiative
VCS	Verified Carbon Standard

Foreword

Carbon pricing can be one of the most powerful tools available to policymakers to incentivize reducing emissions as part of an integrated policy mix. A decade ago, carbon pricing policies covered only 7% of global emissions. Today, nearly a quarter are covered by these instruments.

There is some cause for optimism as carbon pricing and carbon markets continue to evolve and grow, and as new schemes and instruments are introduced that led to revenues reaching a record $104 billion in 2023. Promisingly, most of the revenues raised went towards climate and nature-related programs.

The total number of implemented instruments also went up: today, there are 75 national carbon pricing instruments in operation – with recent efforts in Australia, Hungary, Slovenia, Taiwan, China, and sub-national schemes in Mexico.

And these policies are also becoming increasingly adaptable to national contexts and new sectors. Large middle-income countries including Brazil, India, Chile, Colombia, and Türkiye are making notable progress towards implementing emissions trading schemes. While the power and industrial sectors still account for the bulk of carbon pricing coverage, there are also advances in other sectors, including international aviation, shipping, and waste. Countries such as China, Vietnam, Thailand and Singapore are also increasingly seeking complementarity between carbon pricing policies and carbon markets by including carbon crediting frameworks in their policy mixes. This approach can support domestic pricing instruments and help the carbon price signal reach uncovered sectors.

Despite the positive trends that are outlined in this year's report, higher pricing and wider coverage are going to be essential to really unlock the potential of carbon pricing. This will require political commitment, stronger global frameworks, and initiatives to share best practices that can help drive ambition. Time is not on our side as countries will need to move further, faster to decisively bend the emissions curve and safeguard a livable planet.

The Annual State and Trends report provides objective and up-to-date information on key developments in carbon pricing, reflecting our efforts to become a world-class Knowledge Bank. It is part of our overall effort to support countries worldwide to understand and develop a full range of carbon pricing policies, including through our Partnership for Market Implementation program.

I hope this year's report, like its predecessors, will inform, influence and incentivize governments, private sector partners, and civil society stakeholders to support policies that put a price on carbon and help decisively bend the emissions curve.

Jennifer Sara

Global Director, Climate Change Group, World Bank

Executive Summary

Executive Summary

Carbon pricing adoption has been limited over the past year, but there are promising signs of uptake in middle-income countries

- There are 75 carbon taxes and emissions trading schemes in operation worldwide.
- There was a net gain of two carbon pricing instruments over the past 12 months.
- Middle-income countries including Brazil, India, and Türkiye have made progress towards carbon pricing implementation.
- Implementation also progressed at the subnational level, despite some setbacks.
- Progress was observed in sector-specific multilateral initiatives for international aviation and shipping.
- The European Union Carbon Border Adjustment Mechanism commenced, requiring importers of specified products to report embedded emissions.

Carbon prices remain insufficient despite a decade of strong growth

- An implementation gap remains between countries' commitments and implemented policies.
- Carbon pricing instruments cover around 24% of global emissions. Carbon taxes and emissions trading systems (ETSs) currently being considered could lift coverage to almost 30%, but this will require strong political commitment.
- While carbon tax rates showed slight increases, price changes within ETSs were mixed with ten systems experiencing price decreases over the past 12 months, including long-standing ETSs in the European Union, New Zealand, and the Republic of Korea.
- Price levels continue to fall short of the ambition needed to achieve the Paris Agreement goals.

Carbon pricing revenue reached new highs

- Carbon pricing revenues in 2023 exceeded USD 100 billion for the first time, driven by high prices in the EU and a temporary shift in some German ETS revenues from 2022 to 2023.
- ETSs continued to account for the bulk of carbon pricing revenues.
- Over half of the revenue collected was used to fund climate- and nature-related programs.
- Despite carbon pricing revenue reaching record highs, its contribution to countries' national budgets remains low.

Emerging flexible designs and approaches reflect the adaptability of carbon pricing to national circumstances

- Governments are increasingly using multiple carbon pricing instruments in parallel to expand coverage or price levels.
- Carbon pricing is mostly applied in the power and industrial sectors, but is increasingly being considered in other sectors, such as maritime transport and waste.
- Governments continue to allow regulated entities to use carbon credits to offset carbon pricing liabilities, which can increase flexibility, lower compliance costs, and extend the carbon price signal to uncovered sectors.
- Carbon pricing continues to offer benefits beyond mitigation, including as a fiscal tool.

Carbon credit markets saw mixed movements

- Governments, particularly in middle-income countries, are increasingly including crediting frameworks in their policy mix, with a view to supporting both compliance and voluntary markets.
- Credit issuances fell for the second consecutive year. Retirements remained substantially below issuances, generating a growing pool of non-retired credits in the market.
- Compliance demand is building but voluntary demand continues to dominate.
- Prices declined across most project categories, except for carbon removal projects, signaling interest in this project category.
- Prices were more resilient in over-the-counter transactions, which allow buyers to pursue specific purchasing strategies.
- Credits with specific attributes—such as co-benefits, corresponding adjustments, or recent vintages—traded at a premium, demonstrating the value these characteristics provide buyers.

The subdued market and reduced confidence emphasize the importance of initiatives to rebuild integrity and credibility

- The integrity of carbon credits remains a critical area of concern for the market.
- On the supply side, the Integrity Council for the Voluntary Carbon Market has established a benchmark for credit quality, with the first tranche of approved credits expected in 2024.
- On the demand side, efforts have focused on the importance of reducing operational and value chain emissions and the potential role for carbon credits to address residual emissions.
- Development and implementation of Paris Agreement Article 6 continues, despite setbacks and delays.