



# Carbon Markets

## Carbon Pricing Instruments

February 3<sup>rd</sup>, 2022

# Agenda

## Content

- 1      What is carbon pricing?**
- 2      Carbon Markets**
- 3      Offset mechanisms**
- 4      Voluntary Markets**
- 5      Paris Agreement – Article 6**
- 6      Climate Finance**

## 1. What is carbon pricing?



Carbon pricing is an economical instrument that captures the external costs of greenhouse gas (GHG) emissions and ties them to their sources through a price, usually based on the carbon dioxide ( $\text{CO}_2$ ) emitted.

This helps shift the burden for the damage from GHG emissions back to those who are responsible for it and who can avoid it.

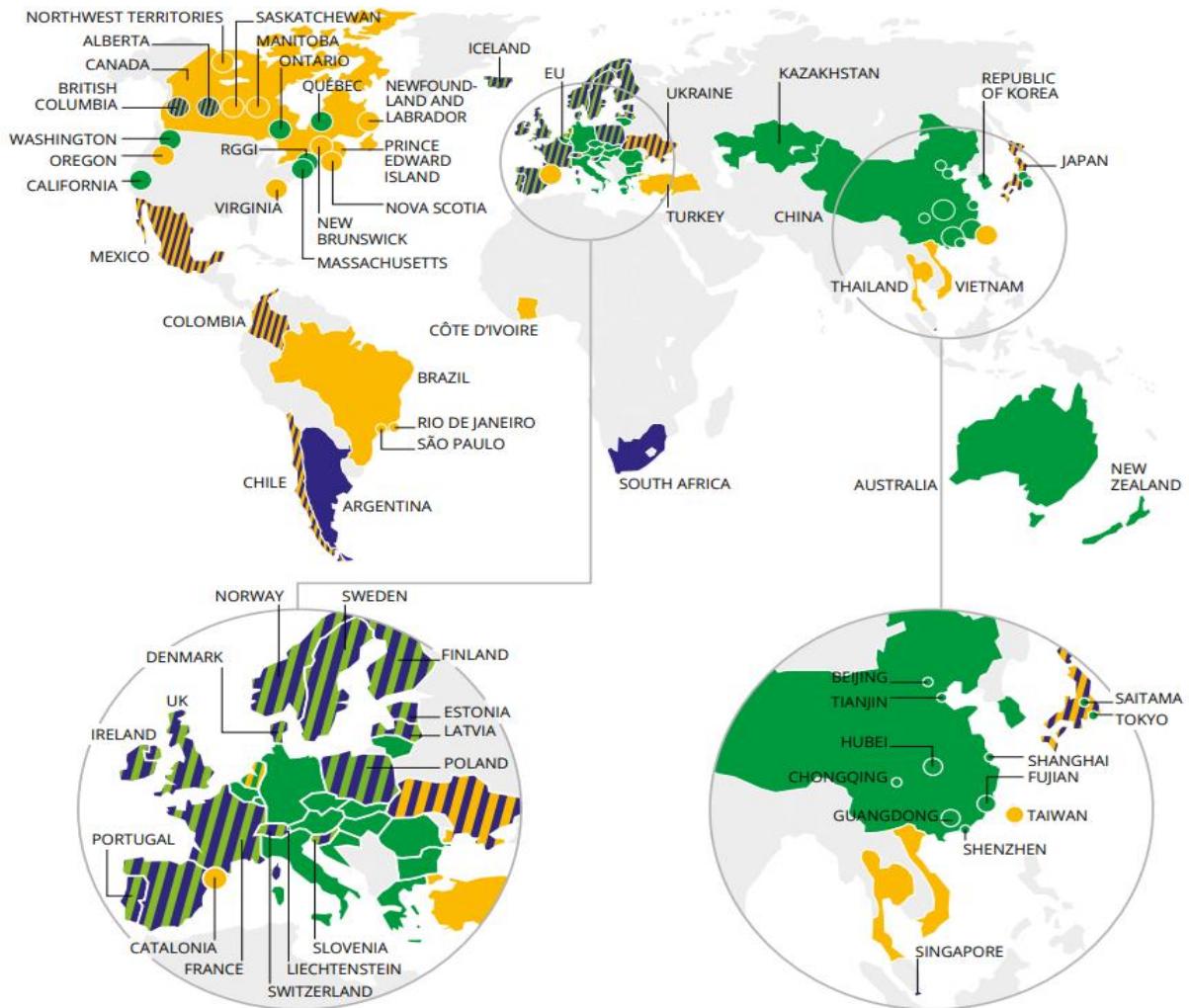
## 2. Carbon Markets

Currently there are **64 Carbon Pricing initiatives** being implemented globally.

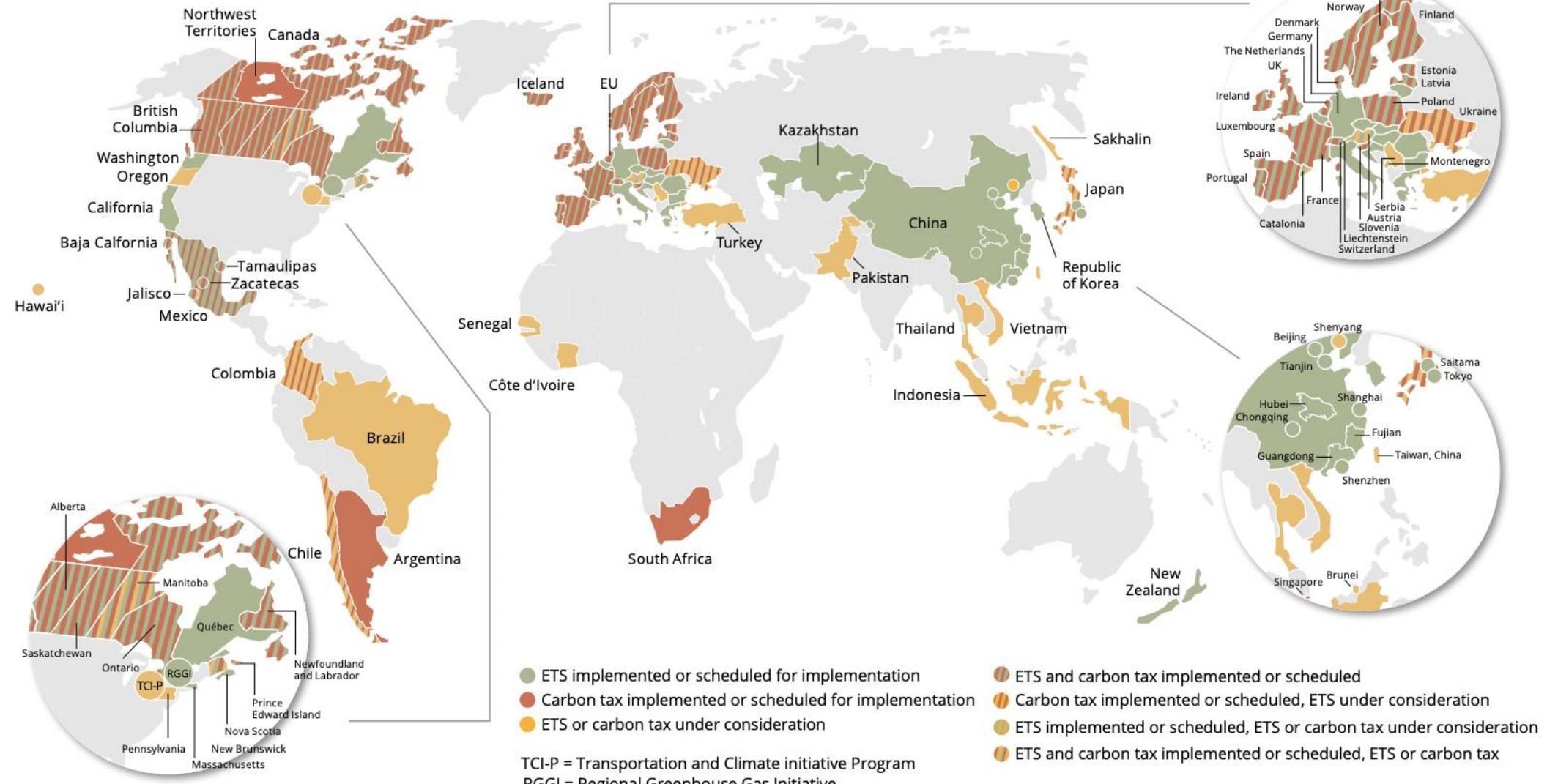
- **45 National jurisdictions** are covered by carbon pricing initiatives.
- **35 Subnational jurisdictions** are covered by carbon pricing initiatives.

Governments raised more than **USD 45 billion** from carbon pricing in 2020.

In 2021, these initiatives would cover **11.65 GtCO<sub>2</sub>e**, representing **21.5%** of global GHG emissions



Source: World Bank, 2021



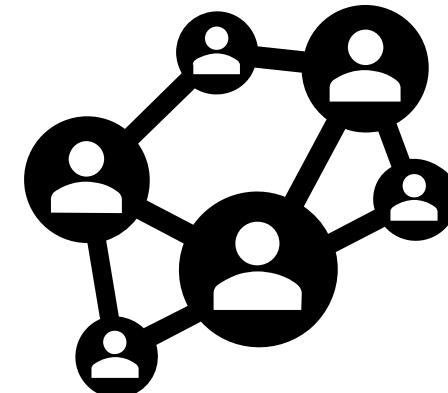
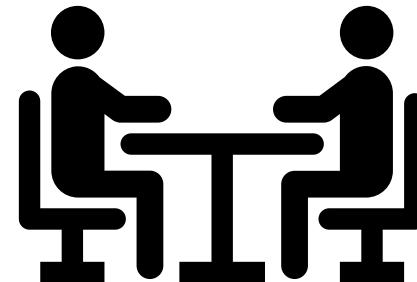
Source: World Bank, 2021

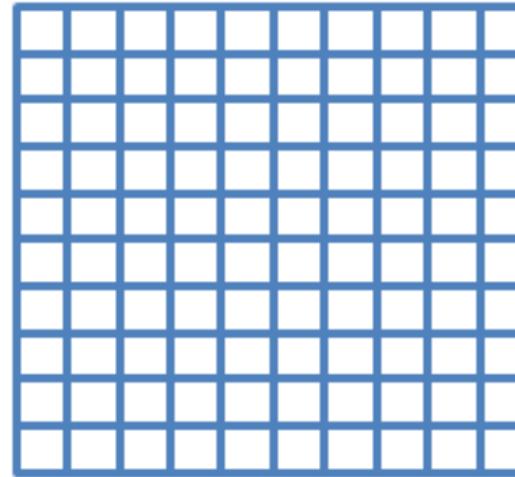
## 2.1 Regulated carbon markets

An Emissions Trading System (ETS) is also known as a regulated carbon market. It is a system where emitters can trade emission units to meet their emission targets. To comply with their emission targets at least cost, regulated entities can either implement internal abatement measures or acquire emission units in the **carbon market**.

By creating supply and demand for emissions units, an ETS establishes a **market price** for GHG emissions.

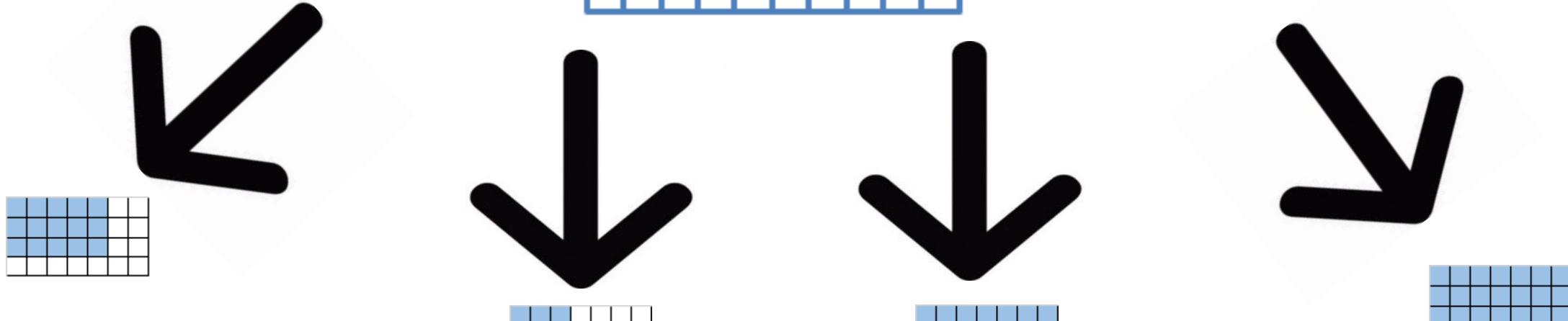
Cap-and-trade systems, apply a cap or absolute limit on the emissions within the ETS and emissions allowances are distributed, usually for free or through auctions, for the amount of emissions equivalent to the cap.





Free allocation

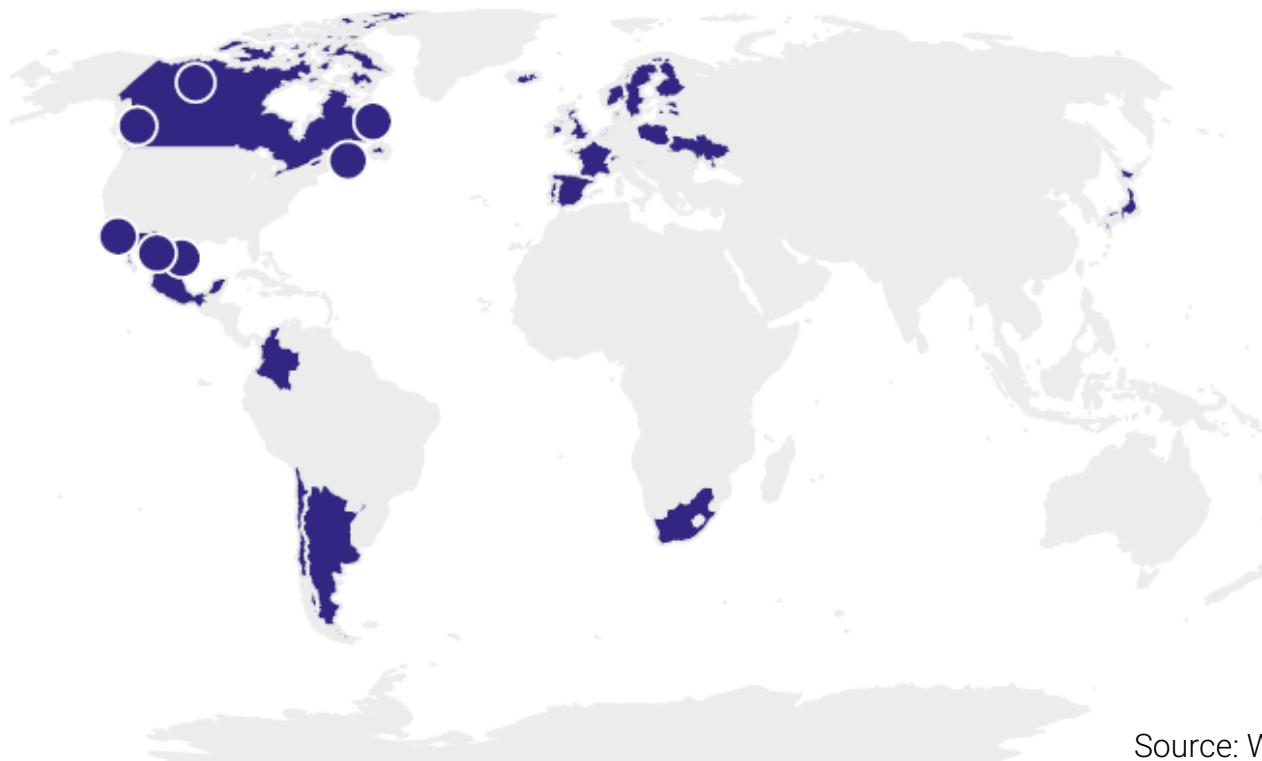
Auctions



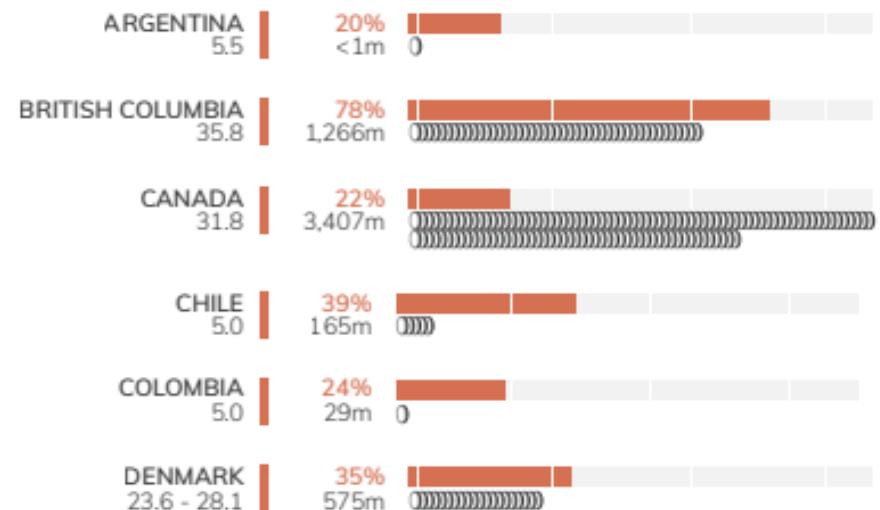
## 2.2 Carbon taxes

A **carbon tax** directly sets a price on carbon by defining an explicit tax rate on GHG emissions or—more commonly—on the carbon content of fossil fuels (i.e., a price per tCO<sub>2</sub>e). It is different from an ETS because the emission reduction outcome of a carbon tax is not pre-defined, but the carbon price is.

**Carbon tax implemented or scheduled for implementation**



**Carbon price, coverage and revenues generated by some carbon taxes**



Source: World Bank, 2021

### 3. Offset Mechanisms

An **offset mechanism** designates the GHG emission reductions from project or program-based activities, which can be sold either domestically or in other countries. Offset programs issue carbon credits according to an accounting protocol and have their own registry. These credits can be used to meet compliance under an international agreement, domestic policies or corporate citizenship objectives related to GHG mitigation.

#### Credits issued, registered activities, average 2020 price and sectors covered by offset mechanisms

Name of the mechanism	Credits issued (MtCO <sub>2</sub> e)	Registered activities	Average price (USD)	Sectors covered
American Carbon Registry	7.30	15	5.36	
Climate Action Reserve	4.61	33	2.34	
Gold Standard	34.35	59	5.27	
Verified Carbon Standard	140.37	127	1.62	
Clean Development Mechanism	74.00	15	2.02	

Source: World Bank, 2021

## 4. Voluntary markets

The voluntary carbon market (VCM) was formed to drive finance to activities that reduce greenhouse gas (GHG) emissions. Over time, the VCM has evolved and matured into a robust and effective means to tackle climate change by driving resources to projects which deliver independently verified and additional emissions reductions on a global scale.



**VCS** | VERIFIED CARBON STANDARD  
A Global Benchmark for Carbon



CLIMATE  
ACTION  
RESERVE



**MÉXICO<sub>2</sub>**  
Plataforma Mexicana de Carbono

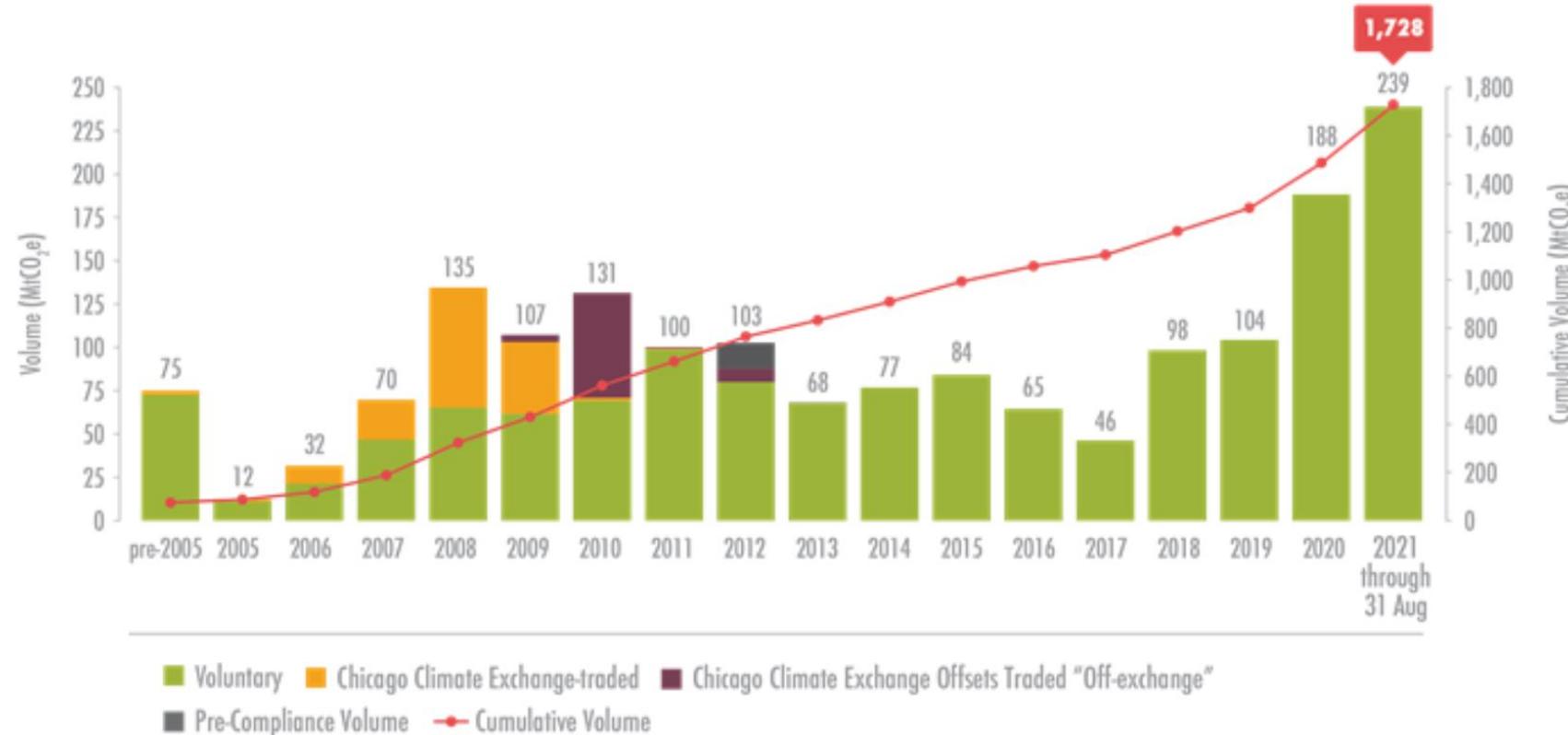


### Sectors

- Forestal
- Renewable energy
- Domestic dispositives
- Waste disposal

## 4. Voluntary markets

### Market Size by Traded Volumes of Voluntary Carbon Offsets, pre-2005 to 31 August 2021



Source: Ecosystem Market Place, 2021

## 4. Voluntary Markets

The volume of traded voluntary carbon offsets hit record volumes of 188.2 MtCO<sub>2</sub>e in 2020. This growth represents an 80% increase over 2019 and is particularly intriguing considering that 2020 was a year of worldwide interruption due to the COVID-19 pandemic.

Even more dramatic has been the growth of the market in 2021.

**Annual Voluntary Carbon Market Overview, 2019 to 31 August 2021**

	Volume (MtCO <sub>2</sub> e)	Price per ton (USD)	Value (USD)
2021 (through August)	<b>239.3</b>	<b>\$3.13</b>	<b>\$748M</b>
2020	<b>188.2</b>	<b>\$2.51</b>	<b>\$473M</b>
2019	<b>104.3</b>	<b>\$3.07</b>	<b>\$320M</b>

Source: Ecosystem Market Place, 2021

## 4.1 Carbon Projects in the Caribbean

13

Project	Standard	Country
Boden Creek Ecological Preserve Forest Carbon Project	VERRA	South Belize
Bull Run Overseas Forest Carbon Project	VERRA	Central Belize
Laguna Seca Forest Carbon Project	VERRA	Belize
Pine Ridge Landfill Gas to Energy Project	UNFCCC	The Bahamas
Mile 24 Regional Sanitary Landfill LFG Project	UNFCCC	Belize
Wigton Wind Farm Project (WWF)	UNFCCC	Jamaica
Wigton Wind Farm II	UNFCCC	Jamaica

## 5. Paris Agreement - Article 6



The Paris Agreement brings all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects, with enhanced support to assist developing countries to do so.

Article 6 covers the ways countries can work together to generate deeper emission reductions and produce more ambitious national climate action plans, called “Nationally Determined Contributions” (NDCs) to the Paris Agreement.

It includes cross-border compliance carbon markets, described as “ITMOs” (Internationally-Transferred Mitigation Outcomes).

Article 6.2 covers rules for bilateral and multilateral transfers between countries.

Key decisions made by heads of governments regarding Article 6 at COP26, Glasgow: [Cop26 Follow-up webinar - Axel Michaelowa - YouTube](#)

## 6. Climate finance



Financial resources and sound investments are needed to address climate change, to both reduce emissions, promote adaptation to the impacts that are already occurring, and to build resilience.

It is important for all governments and stakeholders to understand and assess the financial needs of developing countries, as well as to understand how these financial resources can be mobilized. Provision of resources should also aim to achieve a balance between adaptation and mitigation.

Transitioning to a green economy can unlock new economic opportunities and jobs. An investment of USD 1, on average, yields USD 4 in benefits.

## 6. 1 Climate finance instruments: labeled bonds

**Green:** dedicated environmental benefits (captured since 2012).

**Social:** dedicated social benefits (captured since 2020).

**Sustainability:** green and social benefits are combined into one instrument (captured since 2020).

All regions increased GSS (Green, Social and Sustainability) themed debt volumes in 2020. Europe is the leading region overall, but the regional profile varies considerably between themes.

Cumulative size: Green, Sustainability, Social bonds December 2020			
	Green	Sustainability*	Social*
<b>Total size of market</b>	USD1.1tn	USD316.8bn	USD315.6bn
<b>Number of issuers</b>	1428	178	601
<b>Number of instruments</b>	7716	885	1230
<b>Number of countries</b>	71	30	36
<b>Number of currencies</b>	42	33	25

Source: Climate Bonds Initiative, 2021



## Q&A and contact

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