

# *Carbon Pricing Instruments as a tool for implementation of Paris Agreement*

**5th GREENHOUSE GAS INVENTORY SYSTEM TRAINING WORKSHOP**

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# Maps and Regions of the RCCs

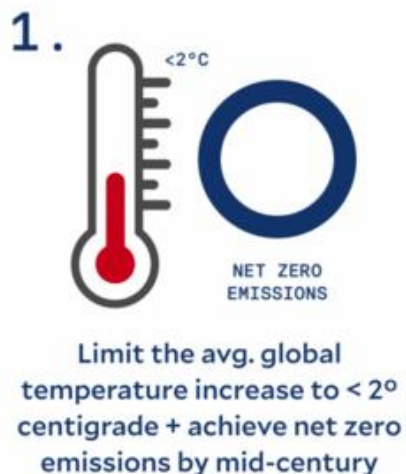
- **RCC Bangkok** supports 40 countries from Asia and the Pacific (Hosted by IGES)
- **RCC Dubai** supports 22 Arab States and 8 South Asian countries (Hosted by WGEO)
- **RCC Kampala** supports 19 countries in Eastern and Southern Africa (Hosted by EADB)
- **RCC Lomé** supports 26 countries in 15 ECOWAS member states and 11 francophone countries (Hosted by BOAD)
- **RCC Panama** provides support to 17 Latin American countries (Hosted by UNEP)
- **RCC St. Georges** supports 16 countries in the Caribbean region (Hosted by WINDREF)



# Paris Agreement

- Paris Agreement aims to **strengthen the global response to the threat of climate change** by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to **pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius**.
- Increase the ability of countries to **deal with the impacts of climate change**, and at making **finance flows consistent** with a low GHG emissions and climate-resilient pathway.
- Requires all Parties to put forward their best efforts through “**Nationally Determined Contributions**” (NDCs) and to strengthen these efforts in the years ahead

## PARIS CLIMATE AGREEMENT



# About Carbon Pricing

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## What is it?

Price signal on GHG emissions: X\$ per tCO<sub>2</sub>e

## Why put it in place?

To **take into account** [all of] [part of] the **cost of carbon pollution** (social cost of carbon) in decisions

→ Follows the “polluter-payer principle”

## What is the rationale

Without carbon pricing (initial situation), carbon pollution is free

→ Cause of the high GHG development and root of the climate crisis

→ Carbon pricing corrects this “market failure” by incorporating the cost of carbon pollution

→ Also enables capturing co-benefits (e.g reduced pollution; energy independence/security)

*“Putting a price on carbon is the only effective way to curb emissions to combat climate change”*

Jean Tirole (2014 Nobel Price in Economics).

# How Carbon Pricing Works

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## How it works?

The price signal:

- Discourages GHG intensive solutions
- Encourages low GHG alternatives

Covered entities will seek to avoid costs and maximize their own benefit by curbing GHGs → avoiding the cost is the goal!

## At which level does it work?

Price signal to:

**Consumers** on good and services purchased and activities undertaken

**Producers** on inputs (materials / energy), processes, and outputs

**Investors:** on projects / businesses to invest in

**Innovators:** for developing low carbon solutions

→ Carbon pricing can work through the whole economy



# Relation to the Paris Agreement

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## NDC process

Not prescriptive regarding sectors / approaches

## Current NDCs

Energy generation/transmission/storage: targeted by 89% of NDCs; targeted by all (100%) of ASEAN countries

## Decision CP21/1

§136 “*Also recognizes the important role of providing incentives for emission reduction activities, including tools such as domestic policies and carbon pricing*”

## Glasgow Declaration

...rapidly scaling up the deployment of **clean power generation** and **energy efficiency** measures, including accelerating efforts towards the **phasedown of unabated coal power** and **phase-out of inefficient fossil fuel subsidies**, (...)



# Relation to the Paris Agreement

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## Potential roles for carbon pricing

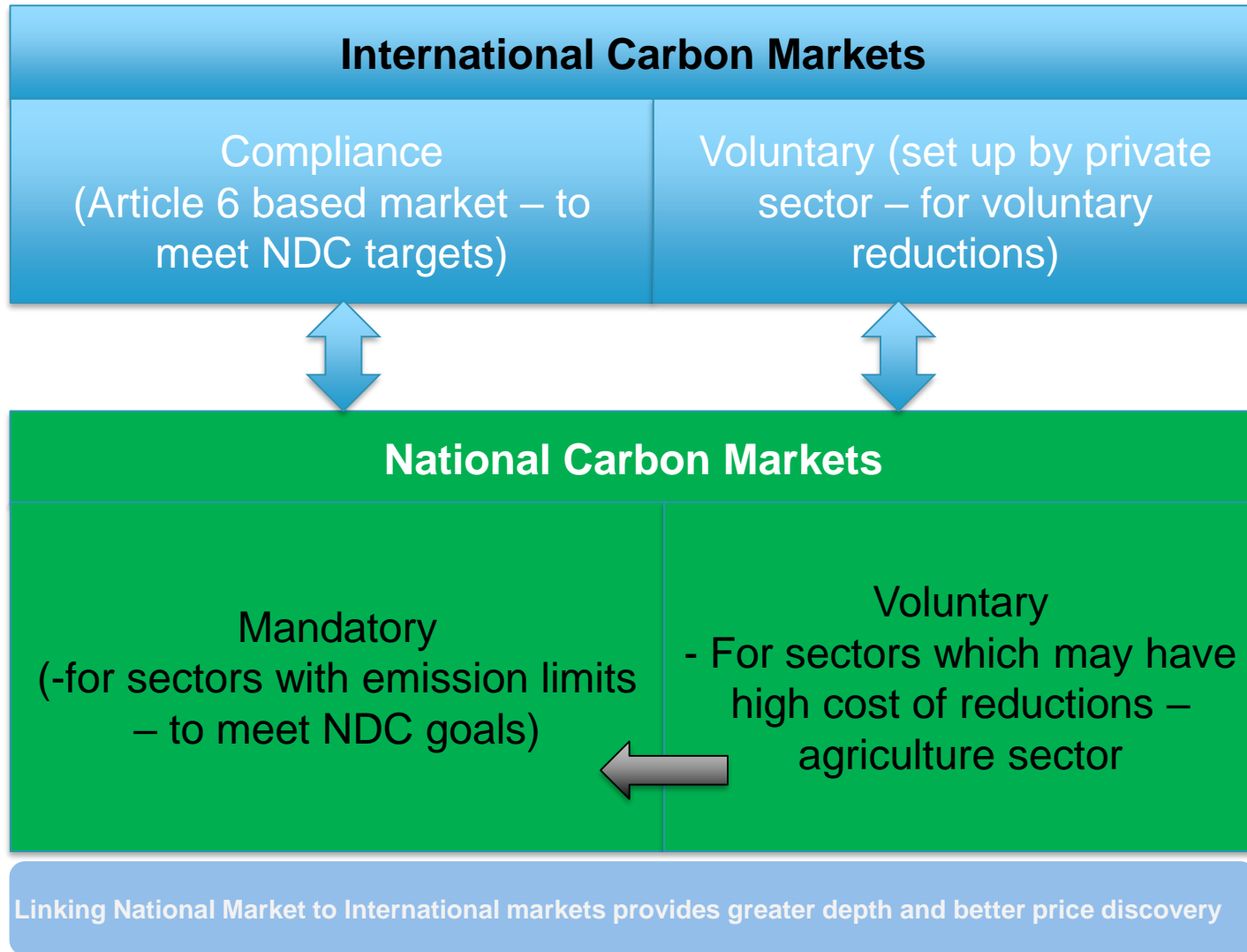
- For achieving successive NDCs (adjustable policy which can be revised over time)
- For LT-LEDS (long-term economic signal)
- Also potentially for cooperative mitigation action under Art. 6

## Power sector

- Most commonly targeted by carbon pricing approaches
- Generally, the first sector targeted before expanding to others
- Sector with large abatement options
- Sector with large scale single source of emissions → easy to MRV



# Types of Carbon Markets





# Benefits of Carbon Pricing

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## Help

- Facilitate emission pathways compatible with keeping global temperature rise to well below 2c above pre-industrial levels and pursuing efforts to hold the increase to 1.5c as per Paris Agreement

## Spur

- Investment and innovation in clean technology by increasing the relative cost of using carbon-intensive technology.
- Business and individuals seeking cost-effective ways to lower their GHG emission will be encouraged into green financing and clean tech.

## Promote

- The achievement of SDGs by channeling financing to SD projects.

## Generate

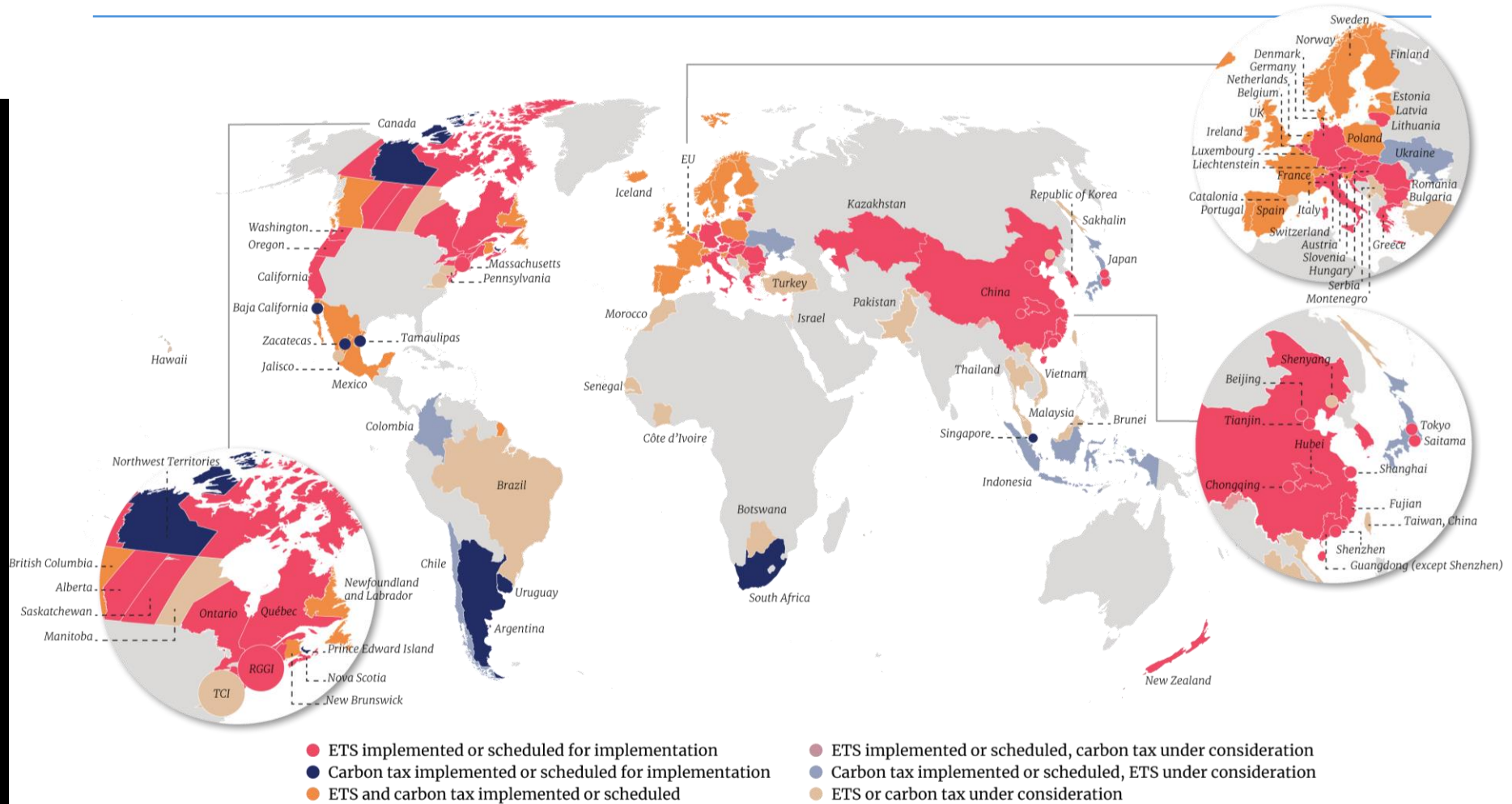
- Revenue which can be recycled into green economy through government spending for R&D
- Revenue to help vulnerable communities adapt to the effects of climate change

## Create

- Environmental, health, economic, and social co-benefits



# Map of Carbon Taxes and ETSs



Carbon pricing initiatives are considered “scheduled for implementation” once they have been formally adopted through legislation and have an official, planned start date. Carbon pricing initiatives are considered “under consideration” if the government has announced its intention to work towards the implementation of a carbon pricing initiative and this has been formally confirmed by official government sources. TCI refers to Transportation and Climate Initiative. RGGI refers to the Regional Greenhouse Gas Initiative.

# Global Initiatives and support

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## The Global Carbon Pricing Challenge

- - aims to expand the use of carbon pricing by strengthening existing systems and supporting emerging ones.
- More and more countries are pricing carbon pollution to cut emissions at low cost while also spurring clean innovation.
- Carbon pricing is most effective when more countries adopt it
- Through international cooperation, countries can send consistent signals to investors that it cannot be free to pollute.

## PMI – Partnership for Market Implementation (World Bank)

- - assists countries to design, pilot, and implement pricing instruments aligned with their development priorities.
  - **Support 30 countries and jurisdictions** in the development and implementation of carbon pricing instruments to **meet their NDC targets** and long-term decarbonization strategies.
  - Help countries participate in the operationalization of **Article 6 of the Paris Agreement**, which would **facilitate international cooperation on carbon markets** and promote the **convergence of national carbon pricing instruments**.
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# Singapore Carbon Tax

## Carbon tax increase

Currently	S\$5 per tonne
2024 & 2025	S\$25 per tonne
2026 & 2027	S\$45 per tonne
By 2030	S\$50 to S\$80 per tonne

- Current carbon tax will remain unchanged until 2023
- No additional carbon tax on the use of petrol, diesel and CNG as they already have excise duties
- Households will mainly feel an impact via their utility bills. Support, such as additional GSTV - U-Save rebates, will be announced in 2023



## Singapore's Carbon Pricing Experience

- Provide a transitional period for companies and households to adjust to the impact of carbon tax, by changing their emission pattern
- Start the conversation on pricing carbon early and consult widely to get buy-in and reduce uncertainties
- Carbon pricing important part of suite of mitigation measures
- Leverage carbon tax implementation to develop domestic carbon services sector and associated capabilities



# Korea ETS

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- K-ETS was launched in 2015, becoming East Asia's first nationwide mandatory ETS and the second largest carbon market after the EU ETS.
- The K-ETS covers 684 of the country's largest emitters, accounting for ~73.5% of national GHG emissions.
- GHGs covered → CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, PFCs, HFCs, SF<sub>6</sub>
- Sectoral coverage → waste, domestic aviation, buildings, industry, and power
- Average auction price (2021) → **USD 23.06**
- Average secondary market price (2021) → USD 17.23
- Total revenue since beginning → **USD 667.5 million**
- Total revenue (2021) → **USD 257.7 million**





# The Collaborative Instruments for Ambitious Climate Action (CiACA)

Announced in COP22, assists parties in the development of carbon pricing instruments for implementing their Nationally Determined Contributions (NDC) under the Paris Agreement

It builds on existing NDC support projects, promotes awareness of carbon pricing and explore possibilities of joining carbon markets.

## Types of Support

Regional Cooperation organizations

Individual Parties

Subnational Jurisdictions

## Scope of Support

Technical Support, Capacity Building, Funding Studies, Exp. Sharing WS

## Supported Jurisdictions

Pakistan, Panama, Senegal, Dominican Republic, ASEAN, etc



# CIACA Work in ASEAN and Pakistan

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- Work closely with ASEAN Working Group on Climate Change
  - The Study on Cooperative MRV as a Foundation for Potential Regional Carbon Market within ASEAN
  - Capacity Building & Gap Analysis for ASEAN
  - Carbon Pricing Roadmap in ASEAN
  - Organizing webinars for AWGCC NFPs
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- Study on the Introduction of Carbon Pricing Instruments in Pakistan (2019)
  - Pakistan Roadmap for Strategic Carbon Pricing Communication



# Regional Dialogue on Carbon Pricing (REdiCAP)

**Main Objective** → to foster learning between countries on different stages of considering and implementing carbon pricing by creating a safe space for dialogue and experience sharing.

The Regional Dialogue on Carbon Pricing (REdiCAP) in Central Asia  
Региональный диалог по ценообразованию за выбросы углерода для Центральной Азии  
25-26 February 2021

UNFCCC secretariat's Regional Collaboration Centres (RCCs) are joining forces with international technical partners to promote regional dialogues on carbon pricing

This year, RCC Bangkok in collaboration with UNESCAP, ADB, and UNEP, is planning to organize a series of regional dialogues again in the Asia Pacific regions.





# Issues-based Coalition work on Carbon Markets in Asia

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## Tools

- Web-based Macroeconomic Tool to assess the impact of carbon price on growth and trade and cost of meeting NDC implementation. (led by UNESCAP)
- Facility based MRV guidelines (UNFCCC lead)

## Knowledge products and information

- Policy briefs on systems requirements for establishing Carbon Markets and Carbon Taxes (led by UNEP)
- Private sector perspective on establishing CPIs and Article 6 Mechanism (led by UNEP)
- Analysis for Viet Nam to identify the sectoral and gases scope for establishing National Carbon Market, including threshold to define single point source coverage



# Article 6 of Paris Agreement

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Article 6 of the Paris Agreement consists of three components:

- Cooperative approaches that involves the use of **internationally transferred mitigation outcomes (ITMOs)** (Article 6.2)
- A mechanism to **contribute to the mitigation of greenhouse gas emissions and support sustainable development** established by Article 6.4 of the Paris Agreement (Article 6.4 Mechanism)
- A framework for **non-market approaches** to sustainable development (Article 6.8)



*“The potential benefits to cooperation under Article 6 include cost savings of \$250 billion per year in 2030” – IETA.*

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# Article 6 Capacity Building Programme

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## Article 6.2 – Capacity Building Programme including through RCCs in consultation with Parties

- Support the development of institutional arrangements, including reporting
- Help Parties ensure that cooperative approaches support ambition;
- Assist the LDCs and SIDs in meeting the participation requirement

## Article 6.4 – Capacity Building Programme including RCC in consultation with 6.4 SB and Parties

- Establish then necessary institutional arrangements to implement the requirement
  - Develop the technical capacity to design and set baselines for application in host Parties;
  - Capacity-building in development countries to apply the Article 6.4 mechanism, and support for the transition
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**IGES**

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Promoting Climate Action in Asia and the Pacific

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