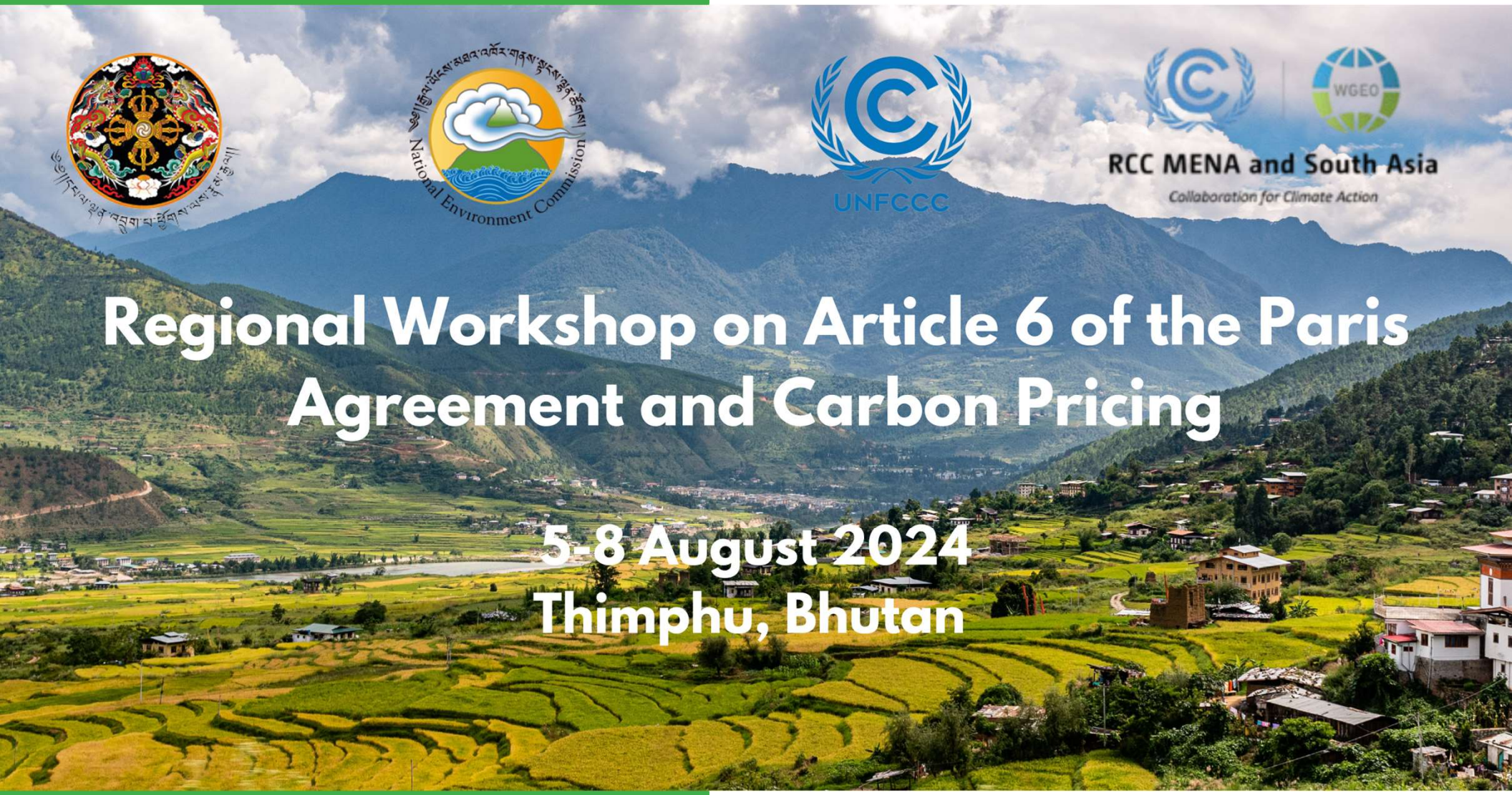
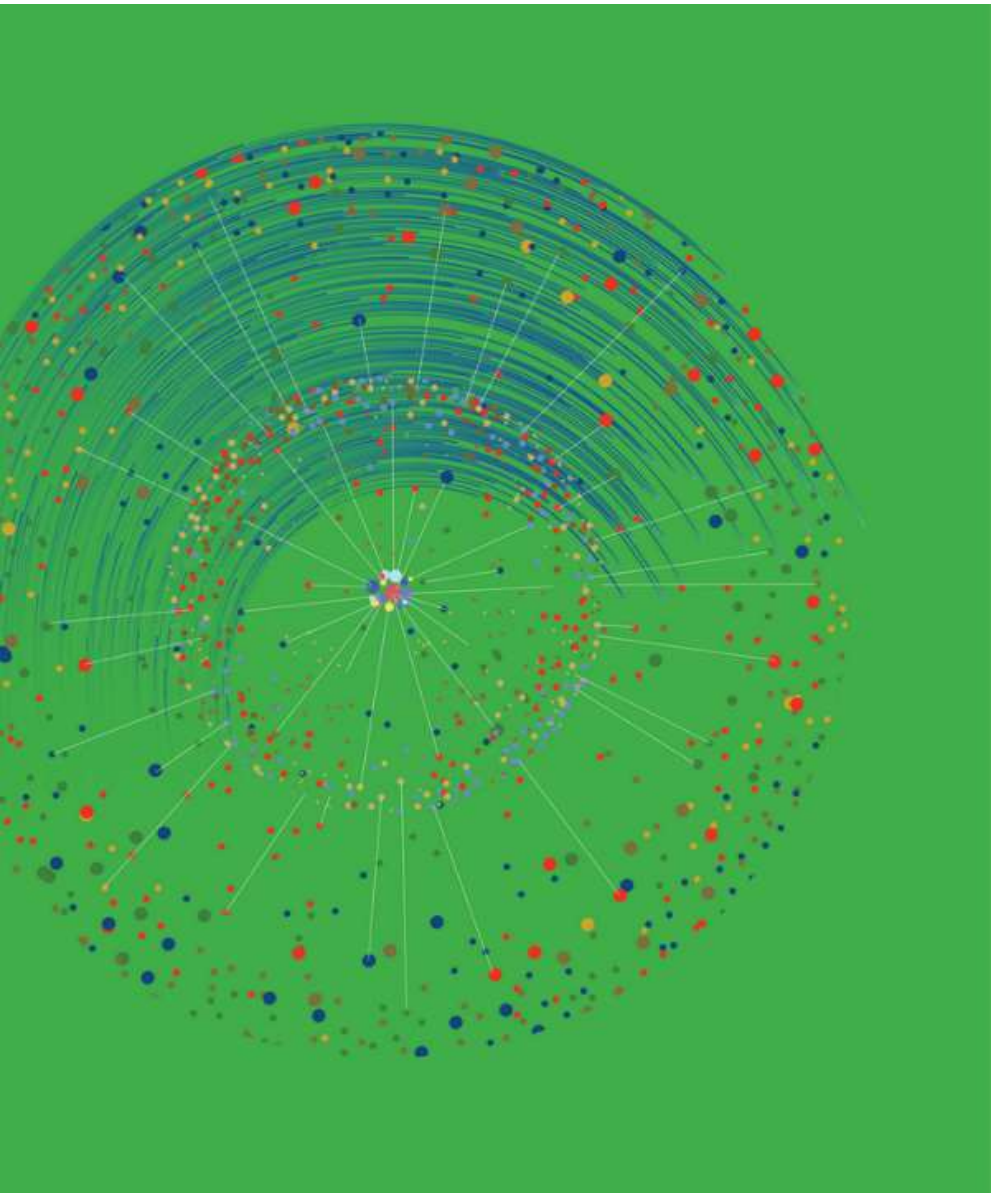


Regional Workshop on Article 6 of the Paris Agreement and Carbon Pricing

5-8 August 2024
Thimphu, Bhutan



United Nations
Climate Change

RCC MENA and South Asia
Collaboration for Climate Action

Welcome Remarks

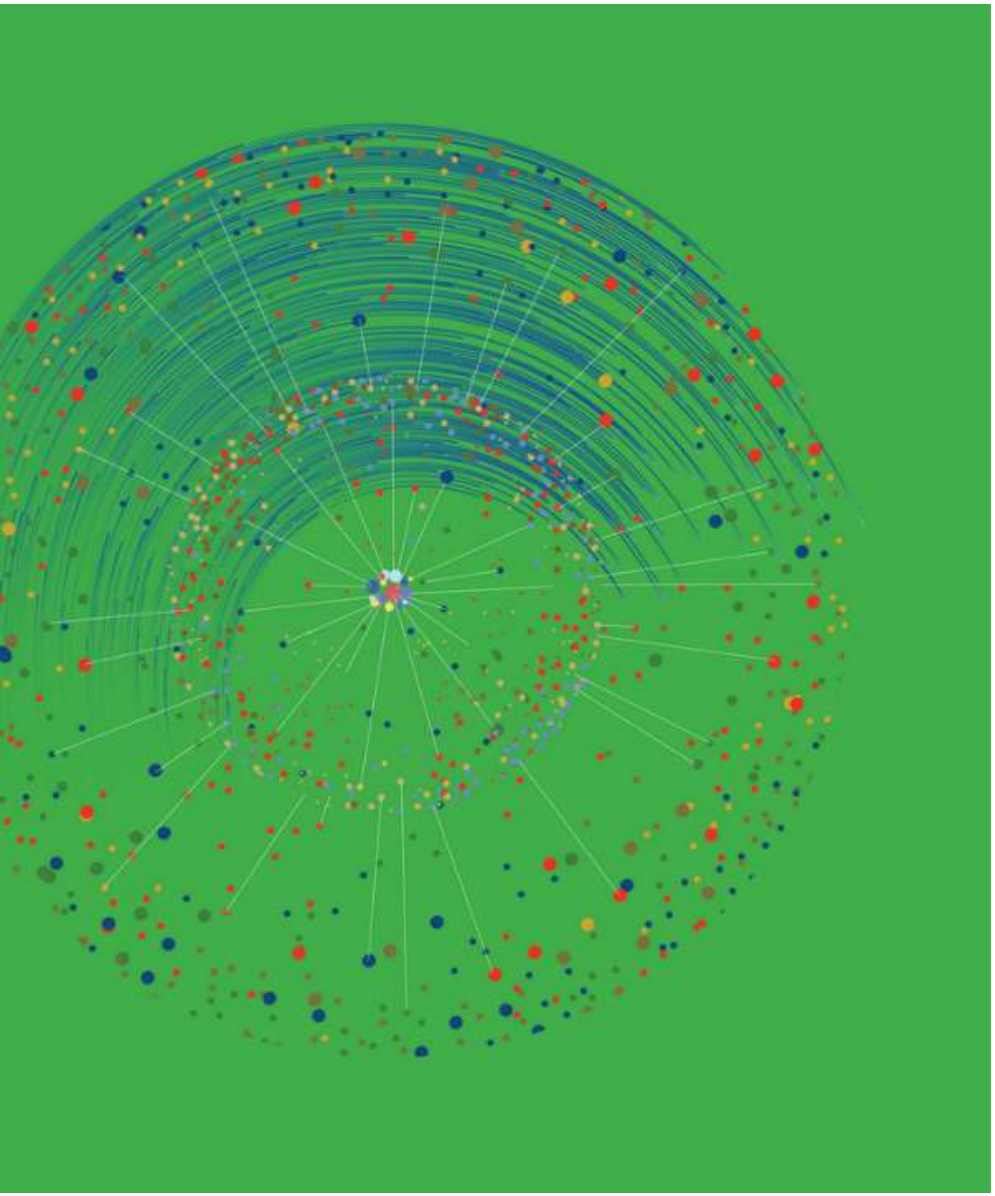
Dasho Paljor J. Dorji
Special Advisor
National Environment Commission

United Nations
Climate Change

RCC MENA and South Asia
Collaboration for Climate Action

Welcome Remarks

Mr. Perumal Arumugam
Manager, UNFCCC



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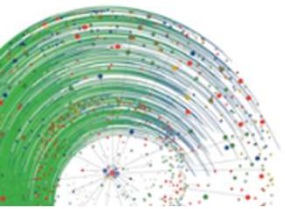
Tea Break
&
Group Photo

Daily Agenda

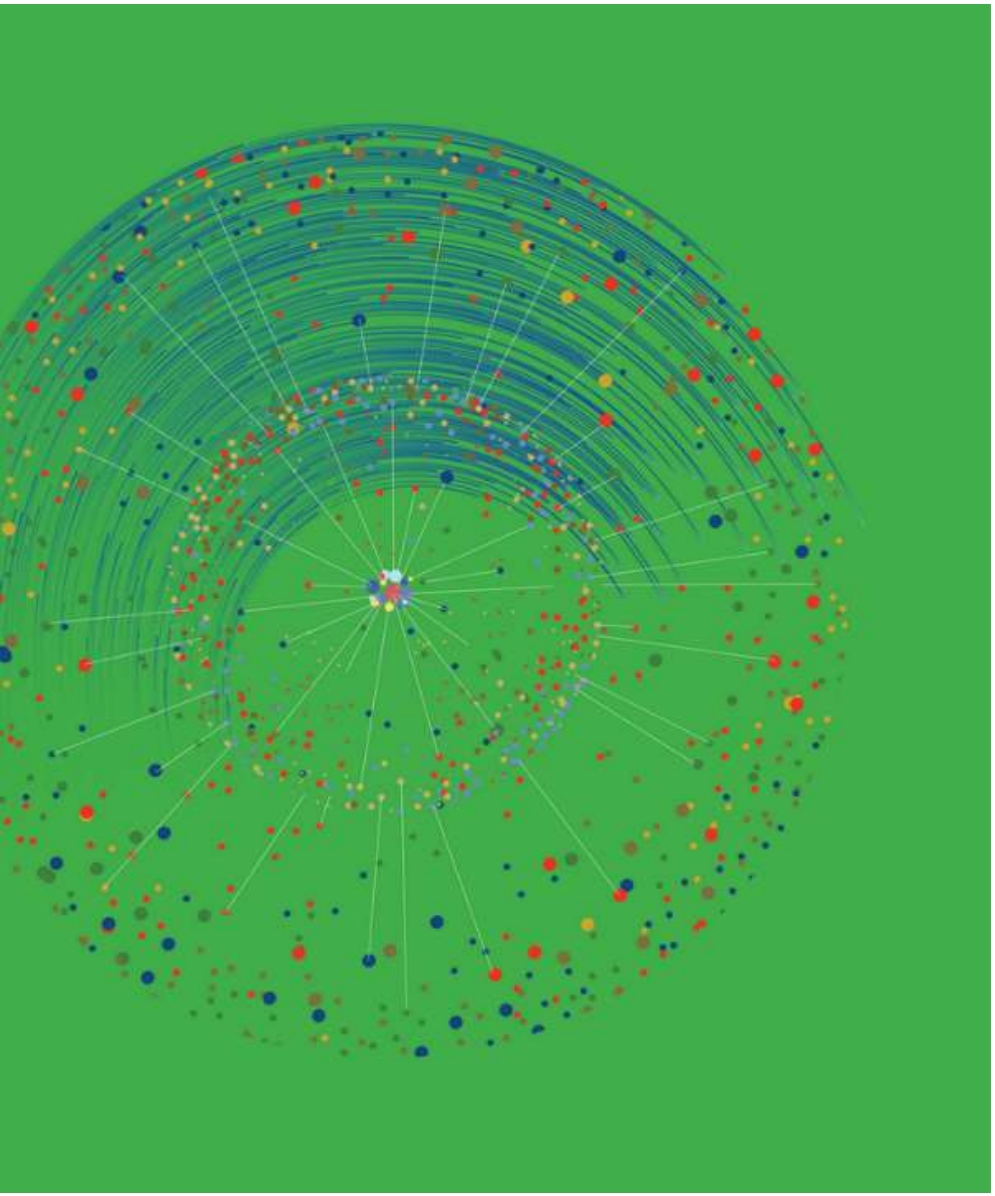
Day 1	5 Aug 2024	Understanding Carbon Markets and interlinkages with NDCs
Day 2	6 Aug 2024	Operationalizing Article 6 in South Asian countries
Day 3	7 Aug 2024	Operationalizing Article 6 in South Asian countries
Day 4	8 Aug 2024	Operationalization & Action Planning for Article 6 in South Asian countries



Detailed Agenda

Detailed Agenda

Article 6 Abbreviations



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DAY 1
Understanding Carbon Markets & interlinkages with NDCs

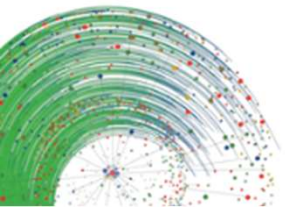
Day 1 : SESSIONS

Taking stock of the Carbon Markets - Main Instruments and Trends

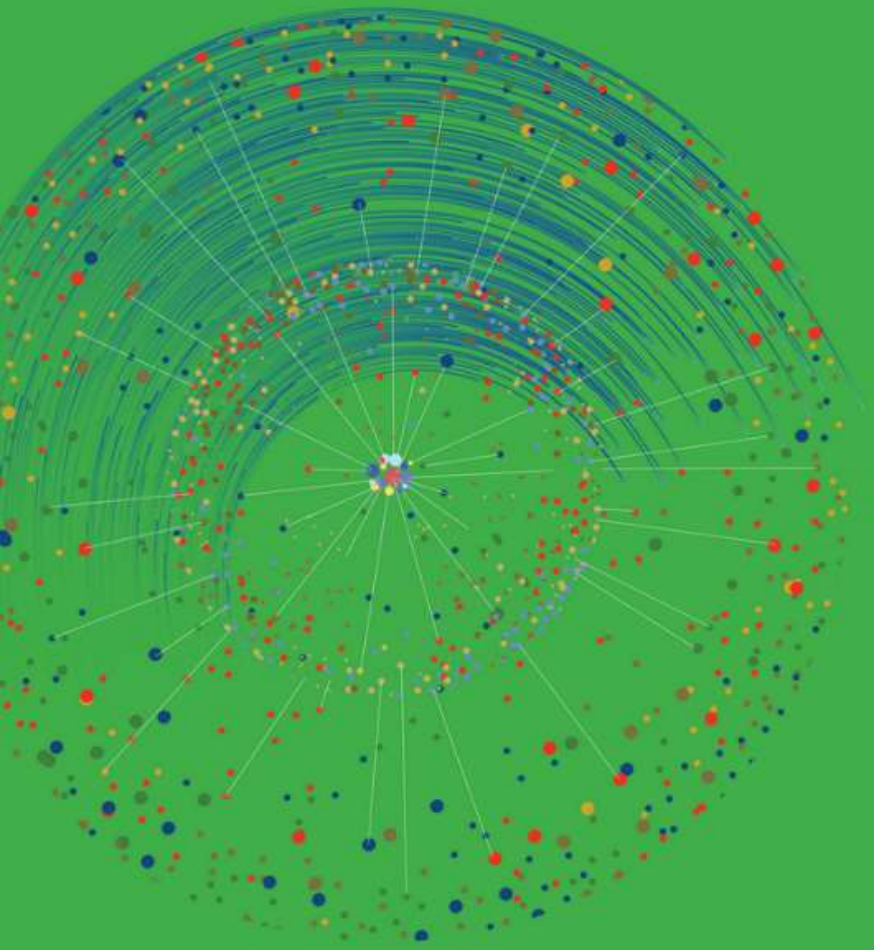
Leveraging Carbon market Instruments for NDC achievement and progression

Implementing Carbon Pricing for Climate Action

Article 6 - Cooperative Approaches



DAY 1 : Understanding Carbon Markets & interlinkages with NDCs



Session 1

United Nations Climate Change

RCC MENA and South Asia
Collaboration for Climate Action

Taking stock of the Carbon Markets - Main Instruments and Trends

Mr. Perumal Arumugam
Manager, UNFCCC

Carbon Markets

- Carbon markets are trading systems in which carbon credits are sold and bought → **Emission Trading**
- One **tradable carbon credit** equals one tonne of carbon dioxide or the equivalent amount of a different greenhouse gas reduced, sequestered,
or avoided (1 tCO2e).

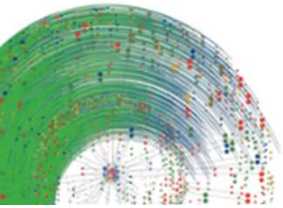
- **Carbon finance will be key for the implementation of the NDCs**, and the Paris Agreement enables the use of such market mechanisms through Article 6.
- Around the world, interest in carbon markets is growing – **83 percent of NDCs** state the intent to make use of international market mechanisms (A6) to reduce greenhouse gas emissions.

https://climatepromise.undp.org/news-and-stories/what-are-carbon-markets-and-why-are-they-important

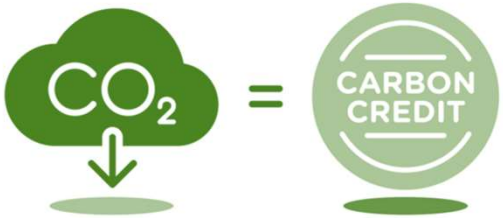
Carbon Market background

The first carbon market began operating in 2005 with the **Kyoto Protocol's Clean Development Mechanism (CDM)**, allowing developed countries to invest in emissions reduction projects in developing countries and receive credits in return

- This created a market where entities could **buy and sell these credits** to meet their emissions reduction obligations more **cost-effectively**.
- Since then, carbon markets have evolved and expanded. Regional and national cap-and-trade systems and carbon pricing mechanisms being implemented around the world.

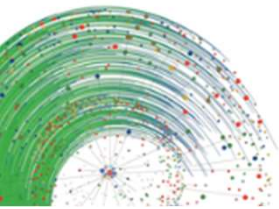


Carbon Markets

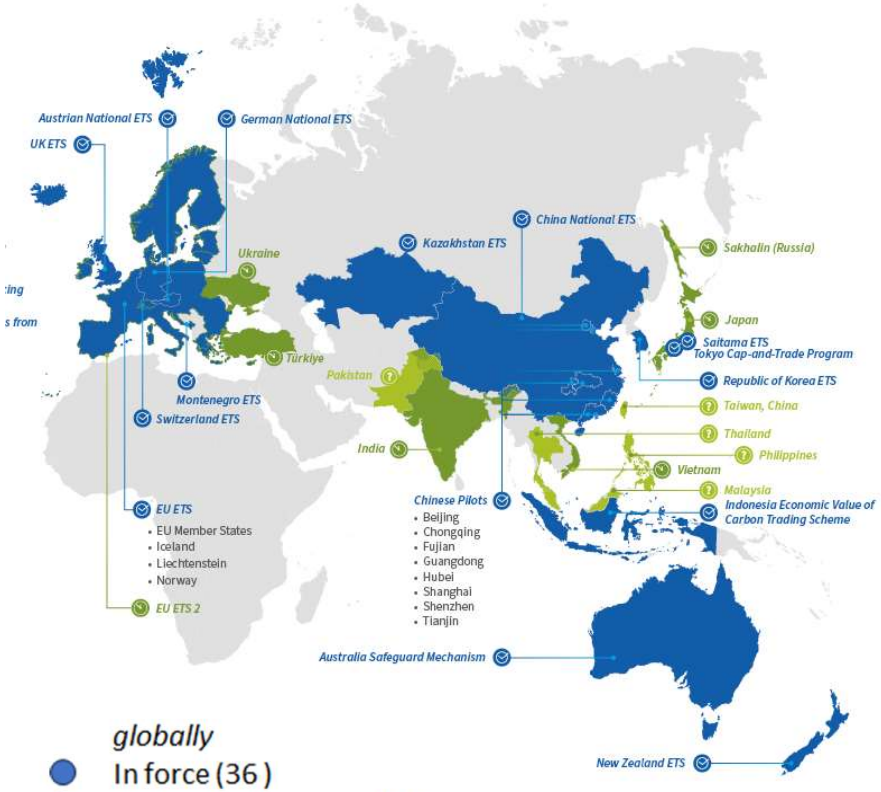


Article 6 can be used for both compliance and voluntary

Voluntary market	Compliance market	Article 6 market
For compensating emissions as part of **net-zero or climate neutral targets**	For achieving **NDCs domestically**	For achieving **NDCs cooperatively**
Motivation = self-set targets	Motivation = compliance with **mandated pricing instrument** (carbon tax, ETS, etc.)	Motivation = to increase NDC ambition / achieve NDCs more flexibly
Buyers = corporates / individuals	**Buyers** = compliance entities (corporates)	**Buyers** = Parties
Units: voluntary credits/Article 6.4 MCUs	Units: emission allowances & offset credits	Units: Internationally Transferred Mitigation Outcomes (ITMOs)
Self-regulations – codes of best practice emerging	Domestic or sectoral regulations	International oversight/ rules



Emissions Trading Worldwide

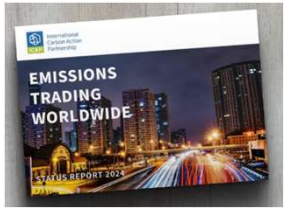


58%

JURISDICTIONS MAKING UP 55 % OF GLOBAL GDP ARE USING EMISSIONS TRADING

1/3

ALMOST 1/3 OF THE GLOBAL POPULATION LIVES UNDER AN ETS IN FORCE

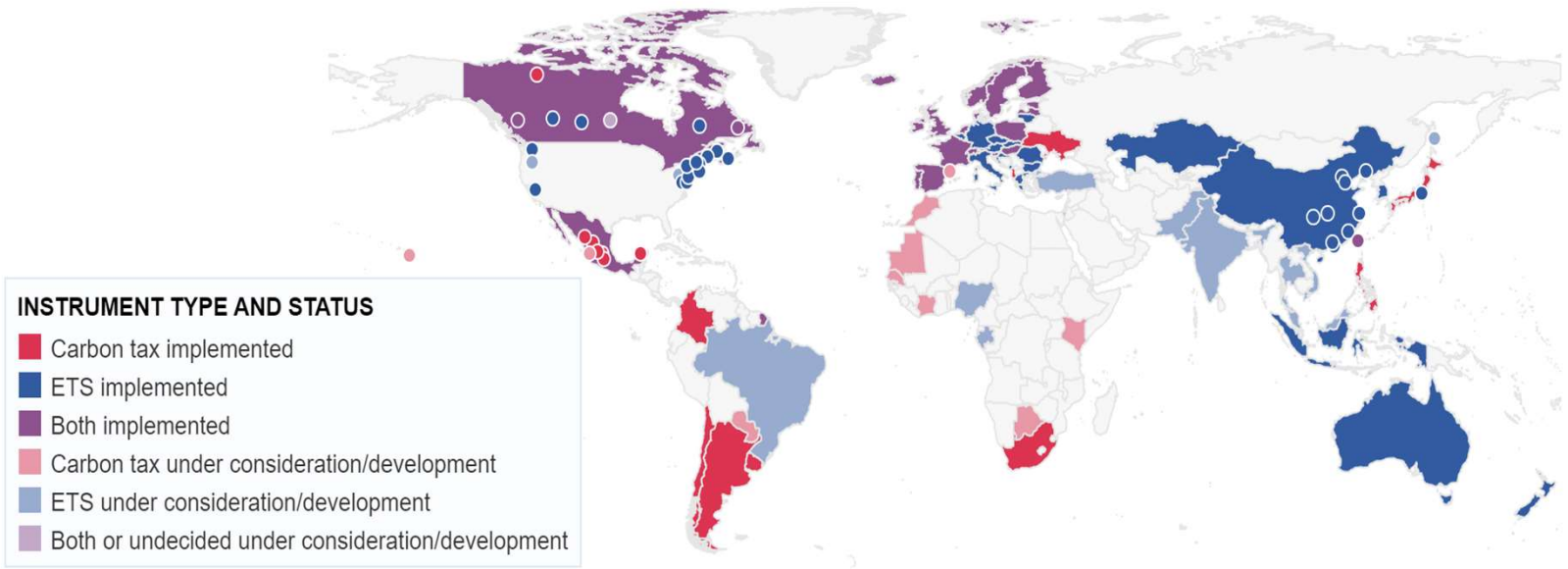


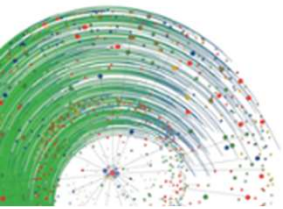
17%

OF GLOBAL GHG EMISSIONS ARE COVERED BY AN ETS

2024 ICAP Status Report

Compliance carbon pricing instruments around the world, 2024.





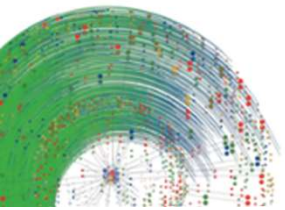
National 50
Subnational 39
89
Jurisdictions with compliance instruments

ETSs 36
Carbon taxes 39
75
Instruments implemented

Source: World Bank Group

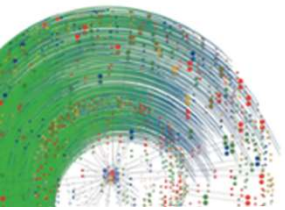
Overview: Sources of demand

- Demand for carbon credits from four segments:
  - The NDC compliance market
  - The CORSIA compliance market
  - The market for compliance against domestic carbon-pricing scheme
  - The voluntary carbon market (VCM)



The NDC compliance market

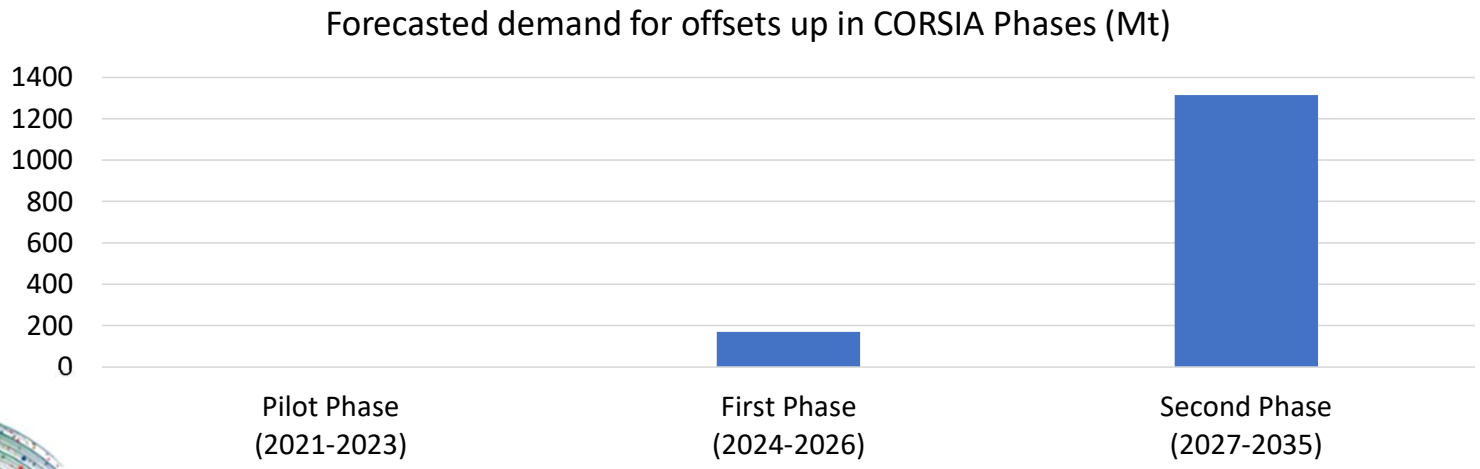
- Demand: Demand for ITMOs for NDC compliance remains small, ranging from 0.178 to 1.5 Gt by 2030.
  - Low demand scenario: Total of announced acquisition of ITMOs by five Parties which have ITMO acquisition plans.
  - High demand scenario: Total of the NDC implementation shortfall of nine countries engaged in ITMO development and acquisition.
  - Factors affecting demand: Countries beyond those considered in the analysis may also become ITMO buyers.
- Opportunity: The introduction of the Article 6.4 mechanism could potentially increase the willingness to achieve higher shares of NDC achievement through cooperative action.



CORSIA

- Potential demand for carbon credits from CORSIA (mid scenario)

- Pilot Phase (2021-2023): 0 Mt
- First Phase (2024-2026): 170 Mt
- Second Phase (2027-2035): 1314 Mt



CORSIA

- CORSIA eligible standards for credits (as of November 2023)

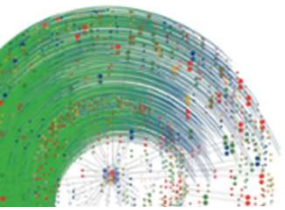
- Pilot Phase (2021-2023): 11 standards
- First Phase (2024-2026): 2 standards

Standards	Pilot phase (2021-2023)	First phase (2024-2026)
American Carbon Registry (ACR)	X	X
Architecture for REDD+ Transactions (ART)	X	X
BioCarbon Fund Initiative for Sustainable Forest Landscapes (ISFL)	X	
China GHG Voluntary Emission Reduction Program (CCER)	X	
Clean Development Mechanism (CDM)	X	
Climate Action Reserve (CAR)	X	
Forest Carbon Partnership Facility (FCPF)	X	
Global Carbon Council (GCC)	X	
The Gold Standard (GS)	X	
SOCIALCARBON	X	
Verified Carbon Standard (VCS)	X	

Source) https://www.icao.int/environmental-protection/CORSIA/Documents/TAB/CORSIA%20Eligible%20Emissions%20Units_Nov2023.pdf

Domestic Carbon-Pricing Scheme - Market

- Demand: Given the number of developing countries establishing domestic carbon-pricing schemes, credits for compliance with schemes may represent a substantial market by 2030, ranging from 2.7 to 4.3 Gt by 2030.
- Opportunity: Most of demand for this category would be filled by domestic crediting standards. Nevertheless, several opportunities still exist, as some jurisdictions:
  - may not wish to set up a domestic crediting mechanism due to efforts/costs.
  - may allow multiple crediting standards.
  - may enable the use of international units.

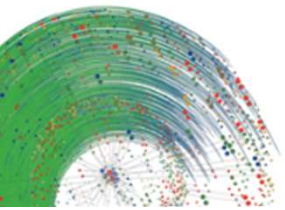


Key Features Across Four Market Categories

	NDC compliance	CORSIA	Domestic compliance	VCM
Demand volume over 2021–2030 (Gt/tCO_2e)	0.178–1.5	0.6	2.7–4.3	3–6.4
Average price in 2023 (USD/tCO_2e)	USD 27.90/ tCO_2e; prices available for ITMOs	USD1.33/ tCO_2e; CORSIA eligible units	N/A (Depends on the carbon price set and quotas for credits set)	USD 7.30/tCO_2e; all categories except engineered removals, USD 250–1750/ tCO_2e; engineered removals
Key quality criteria	N/A (Set by each Party) and for 6.4 PACM SBM	CORSIA Emissions Unit Eligibility Criteria	N/A (Set by each market)	Various voluntary activities
Major suppliers	Various activities under Article 6.2. and Article 6.4	CORSIA- eligible standards (mostly independent carbon standards as well as CDM)	Domestic carbon standards, Independent carbon standards	VCS, GS, CAR, ACR, etc.

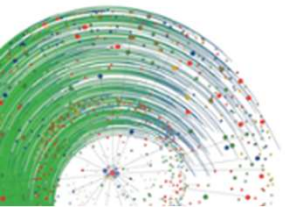
Overview: Sources of supply

- Supply for carbon credits from five main sources:
  - Independent carbon standards
  - Cooperative approaches under Article 6.2 & Article 6.4
  - Domestic carbon standards
  - Bilateral carbon standards
  - Other sources of supply
  - CDM



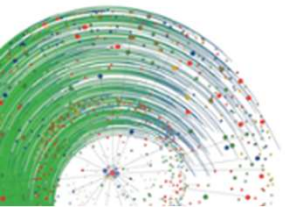
Domestic Carbon Standards

- Domestic carbon standards are often established by a jurisdiction to serve the purpose of domestic compliance demand (either in conjunction with carbon pricing or some form of carbon commitment) and/or voluntary demand.
  - Example of jurisdiction: Alberta (Canada), Australia, Canada, Colombia, Chile, China, EU, India, Indonesia, Japan, Kazakhstan, Korea, Mexico, New Zealand, Saudi Arabia, Singapore, USA (Regional), Thailand, and Vietnam.



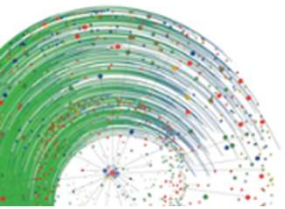
Bilateral Carbon Standards

- Currently, one bilateral carbon standard developed by Japan, the Joint Crediting Mechanism (JCM), is in operation, while one other bilateral carbon standard, the Indo-Pacific Offsetting Scheme (IPCOS) is being developed by Australia.
  - As of October 2023, the JCM had led to an estimated GHG reduction of 2.8 MtCO2/year from 235 projects across 15 counties.
  - IPCOS is an Australian-led 10-year initiative (until 2031) to support climate action in the Indo-Pacific region with approximately USD 100 million.



Other Sources of Supply

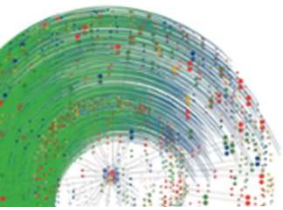
- Emission allowances from ETSs transferred to other jurisdictions is another sources of units, among others.
- Nevertheless, large-scale transfer of ITMOs from ETS to ETS is not expected to develop at scale.

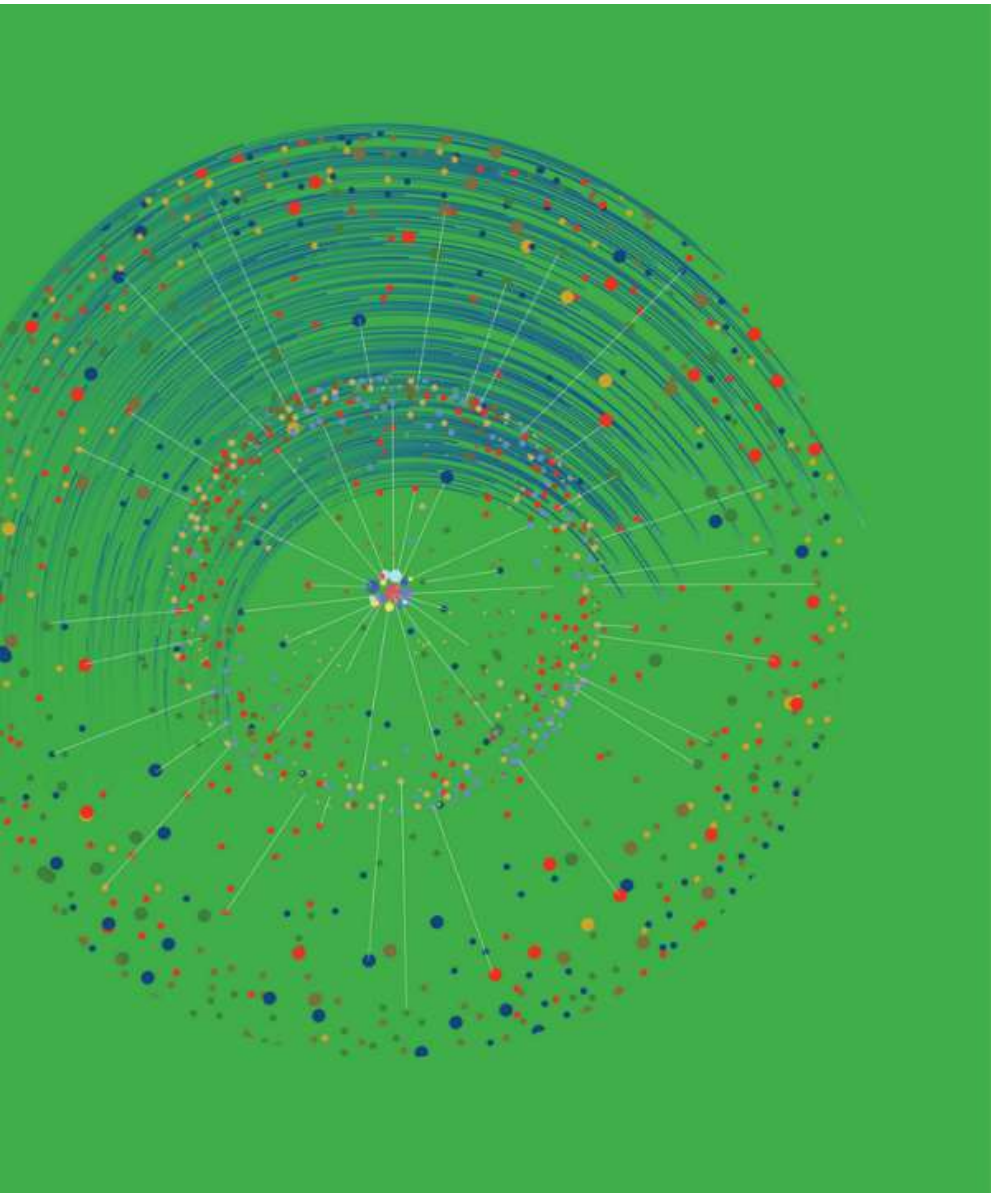


Why Does All This Matter?

- Article 6 is an important part of the world's "toolbox" for addressing climate change
- Article 6 is the only part of the PA that directly engages the business and private investment sector in directly implementable activities in which they can invest
    - There is strong real-world potential for cooperative action - shown by existing pilot Article 6 projects, with the UN decisions in Glasgow understanding the overall impact of cooperative action on global mitigation is facilitated

- Many similar tools are being increasingly deployed at domestic, regional, and bilateral levels…
- Centralized mechanism helps in ensuring broader accessibility of the market





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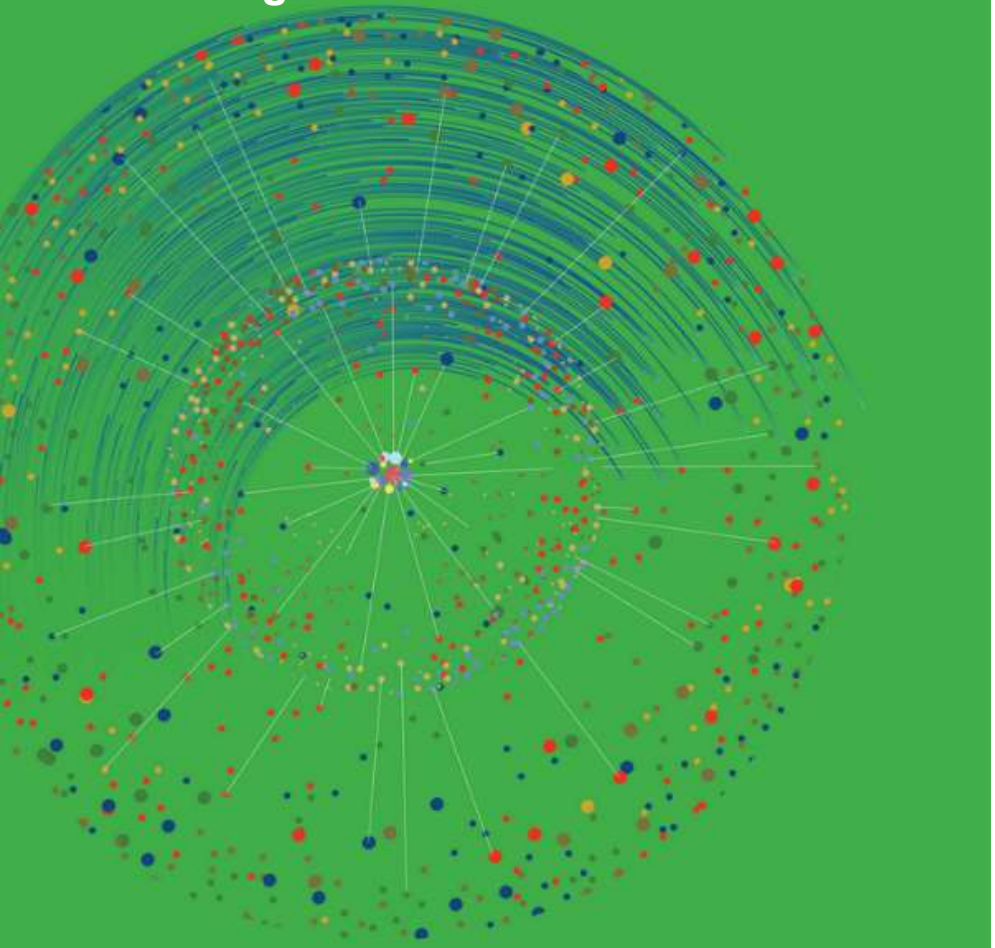
Open Discussion

DAY 1 : Understanding Carbon Markets & interlinkages with NDCs



Session 2

United Nations Climate Change

RCC MENA and South Asia
Collaboration for Climate Action

Leveraging Carbon market Instruments for NDC achievement and progression

Mr. Umamaheswaran Krishnan
Article 6 and Carbon Pricing Regional Expert
RCC MENA & South Asia

Financial Requirements For NDC Implementation

- Significant financial investment is needed for the world to meet the goals of the Paris Agreement and 2030 Agenda. Current estimates show that countries collectively need **at least USD 5.8-5.9 trillion** to deliver their Nationally Determined Contributions (NDCs).

South Asia NDCs & Art 6

13.6% reduction in GHG emissions by 2030

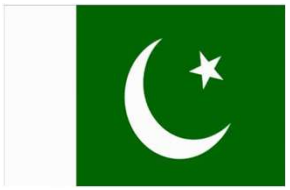
6.73% unconditionally and 21.85% conditionally below BAU by 2030

Keep it on neutral , total emission relative to total removals at a national level

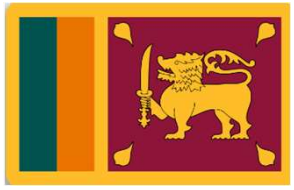
To increase non-fuel based energy resources for electricity generation to 50% by 2030

26% by 2030 and achieve net zero emissions by 2030

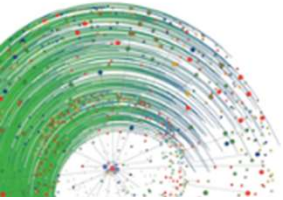
Aims to reduce by 8% compared to BAU in 2025; and 28% compared to in 2030



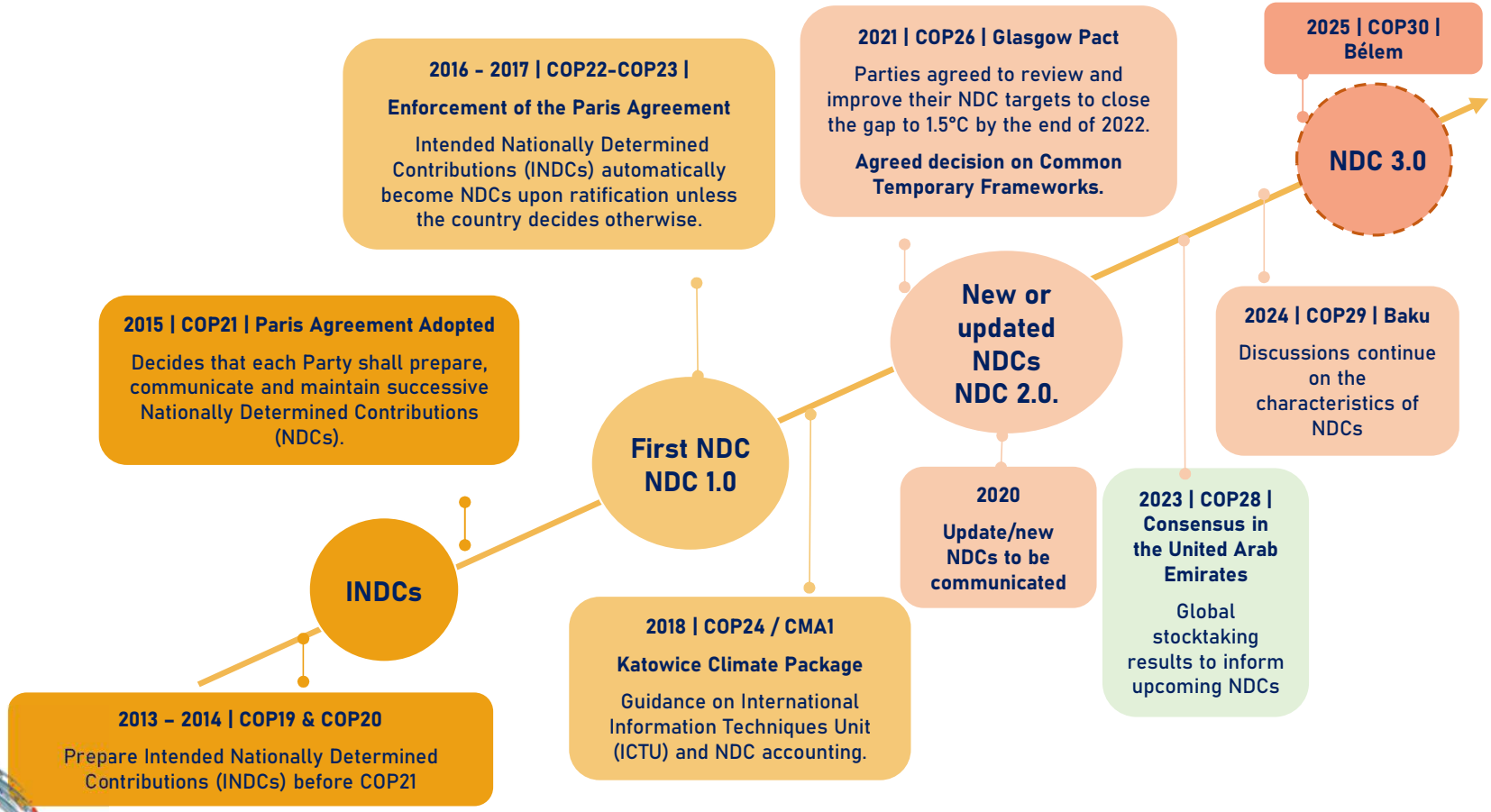
Reduction of 50% emission by 2030, with 15% unconditional and 35% conditional



Reduction of GHG emissions by 14.5% for the decade to 2030, including an unconditional reduction of 4%.



NDC: A history, more than 10 years of ambition



NDC: Cornerstone for Climate Action

Art 4. Each Party

Prepare, communicate and maintain successive NDCs and undertake internal mitigation measures (A4.2).

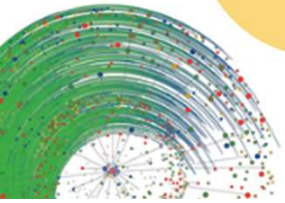
Successive NDCs will represent a progression and reflect the highest possible ambition (A4.3).

Provide information necessary to facilitate clarity, transparency and understanding (A4.8).

Communicate an NDC every 5 years, informed by the results of the Global Stocktake (A4.9).

May adjust its existing NDC at any time to increase ambition (A4.11).

Be accountable for its NDCs (A4.13).



Parties that are developed countries

They should continue to take the lead by taking on economy-wide absolute emissions reduction targets (A4.4)

Parties that are developing countries

They should continue to enhance their mitigation efforts, and are encouraged to move over time towards economy-wide emission reduction or limitation targets, in the light of different national circumstances (A4.4)

Support will be provided to developing country Parties for their implementation (A4.5)

Least Developed Countries (LDCs) and Small Island Developing States (SIDS)

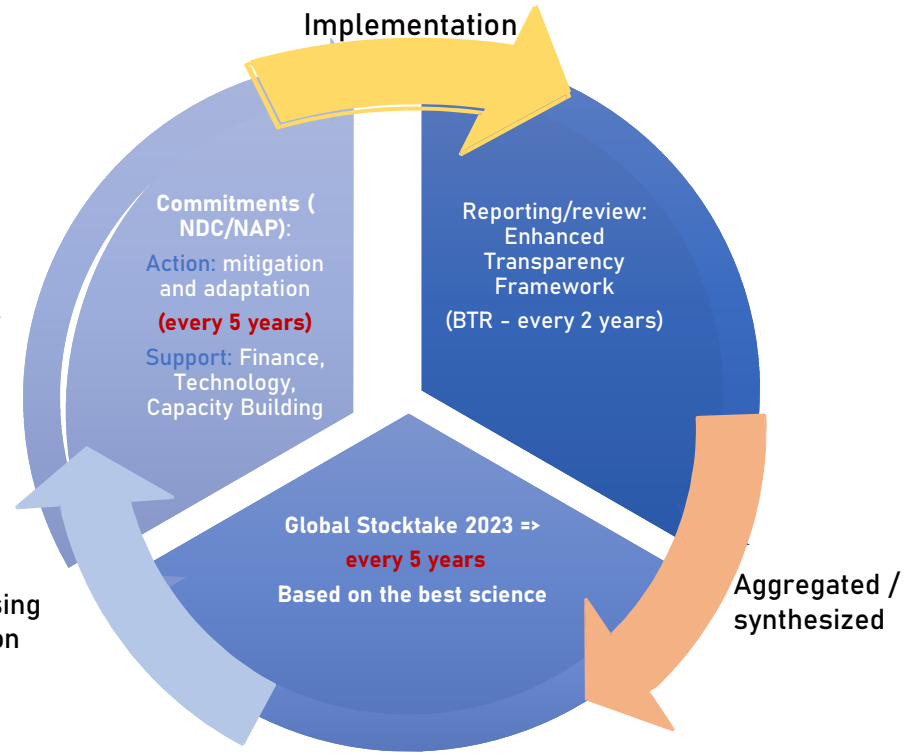
It can prepare and communicate strategies, plans and actions for low greenhouse gas emission development that reflect its special circumstances (A4.6).

Ambition Cycle

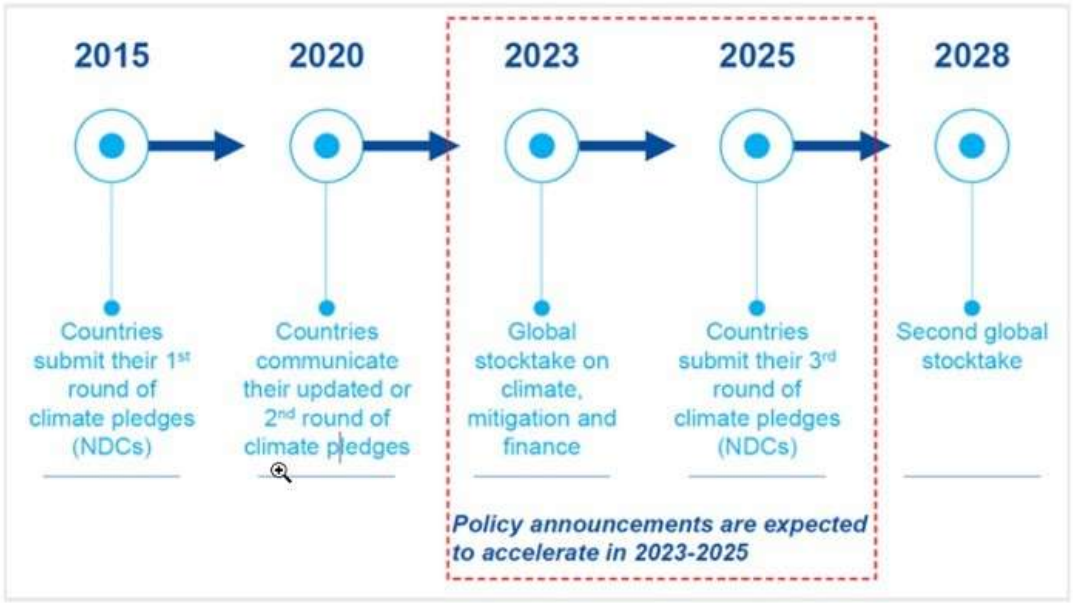
Temperature
Maintain temperature risewell below +2 /1.5 degrees C

Adaptation
Increasing adaptive capacity and building resilience.

Finance
Flows consistent with a low greenhouse gas emissions and resilient development trajectory



Nationally Determined Contributions (NDCs)



National climate plans for 2030

Review every **5 years** to increase ambition to meet PA targets

Bottom-up plans, determined by both national realities and scientific requirements

Global stocktake in 2023

What does the Global Stocktake tell us?

Implementation of the Paris Agreement **is falling short** in all areas and is not where it should be.

The review calls for a systems transformation, following **a whole-of-society and whole-of-economy** approach that integrates climate resilience and development aligned with low greenhouse gas emissions.

But there is a well-known **large gap in mitigation**, with the current trajectory of global emissions **not consistent with limiting global temperature rise to 1.5°C,** while **adaptation to climate change is not at the necessary levels**.

The review also points to **a growing gap between the needs of developing countries and the support provided and mobilized for them** and calls for **unlocking and redistributing trillions of dollars** towards climate action and climate-resilient development.

Summary of GST results

Decision GST 1/CMA 5

High-Level Events on Adaptation, Mitigation and Means of Implementation

Key messages

Collective Progress and Action and Support Information

Mitigation: Keep 1.5°C target within reach, Urgent reduction of GHG emissions, Transition away from fossil fuels, Triple renewable energy, Double energy efficiency, Promote NDCs.

Adaptation: Incremental, multi-sectoral and transformational actions, Early Warning Systems, Targets for achieving the global goal on adaptation, Enhancing national adaptation plans and adaptation communications.

MOI: Scaling up mobilization, $100 billion commitment, Doubling of adaptation funding, NCQG support, Technology Implementation Program, Capacity building support.

Avoidance and minimization of loss & damages, data management.

Progress on a just transition and consideration of countermeasures.

Orientation and the way forward

- GST, Finance, Mountains and Children Dialogues
- NDCs and LTS-LEDS reviewed.
- UNSG Event.
- Communicating BTRs
- Incorporation of GST Results

International Cooperation

Cross-cutting: urgency for action, equity and best available science, sustainable development

NDC Financing And Costs

5.8 trillion dollars per year

This is the approximate cost of the financial needs expressed in the NDCs of 78 countries by 2021.

UNFCCC

387 billion per year

Estimated to be the cost of national adaptation priorities for all developing countries, for the period 2021 to 2030.

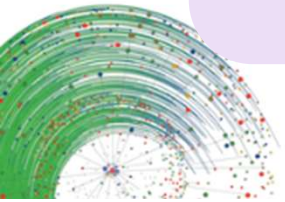
UNEP

International **financial assistance will have to be increased**, restructuring new sources of public and private capital through mechanisms that reduce the cost of capital.

UNEP

Financial flows for mitigation must increase by **3 to 6 times** to meet the average annual needs between 2020 and 2030

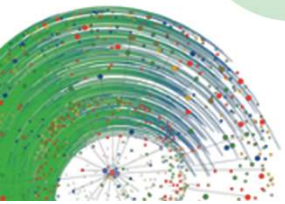
IPCC



Carbon Pricing Policies for NDC achievement

Carbon pricing has proven to be one of the most effective tools to unlock potential from the private sector, companies, as well as investors.

It is therefore an important part of the toolkit available to policy makers, both to achieve current NDCs at least cost and to encourage greater ambition in future



National Budget

Private Capital

International Climate Finance

Carbon Finance/ Carbon Markets

Carbon Pricing Policies for NDC achievement

Parties can engage in cooperative approaches in the implementation of their NDCs to allow for higher ambition in mitigation and adaptation actions

Two-thirds of all NDCs consider the use of carbon pricing to achieve their emission reduction targets, through international trading of emissions, offsetting mechanisms, carbon taxes, and other approaches

Landscape of Instruments

	Kyoto Protocol	Paris Agreement
Non-Annex I countries	No climate targets	All Parties have **Nationally Determined Contributions (NDCs)**
Annex I countries	Binding climate targets	All Parties have **Nationally Determined Contributions (NDCs)**
Instrument of collaboration	CDM (between Annex I and non- Annex I countries) JI (between Annex I countries) IET (between Annex I countries)	Article 6 of the Paris Agreement (between any Parties) • **Article 6.4**: mechanism for the **creation of units** (tCO_2e): A6.4ER • **Article 6.2**: **transfers of mitigation outcomes** for NDCs and OIMP • Article 6.8: non-market approaches

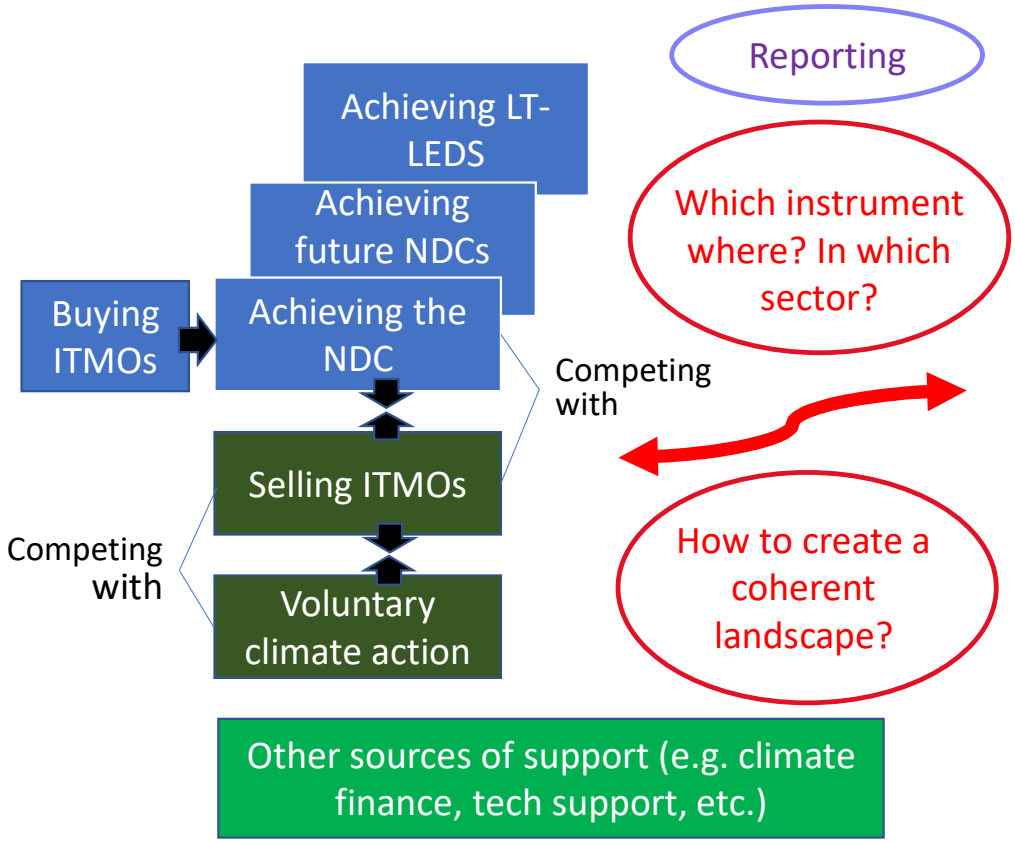
CDM

JI

IET

Article 6

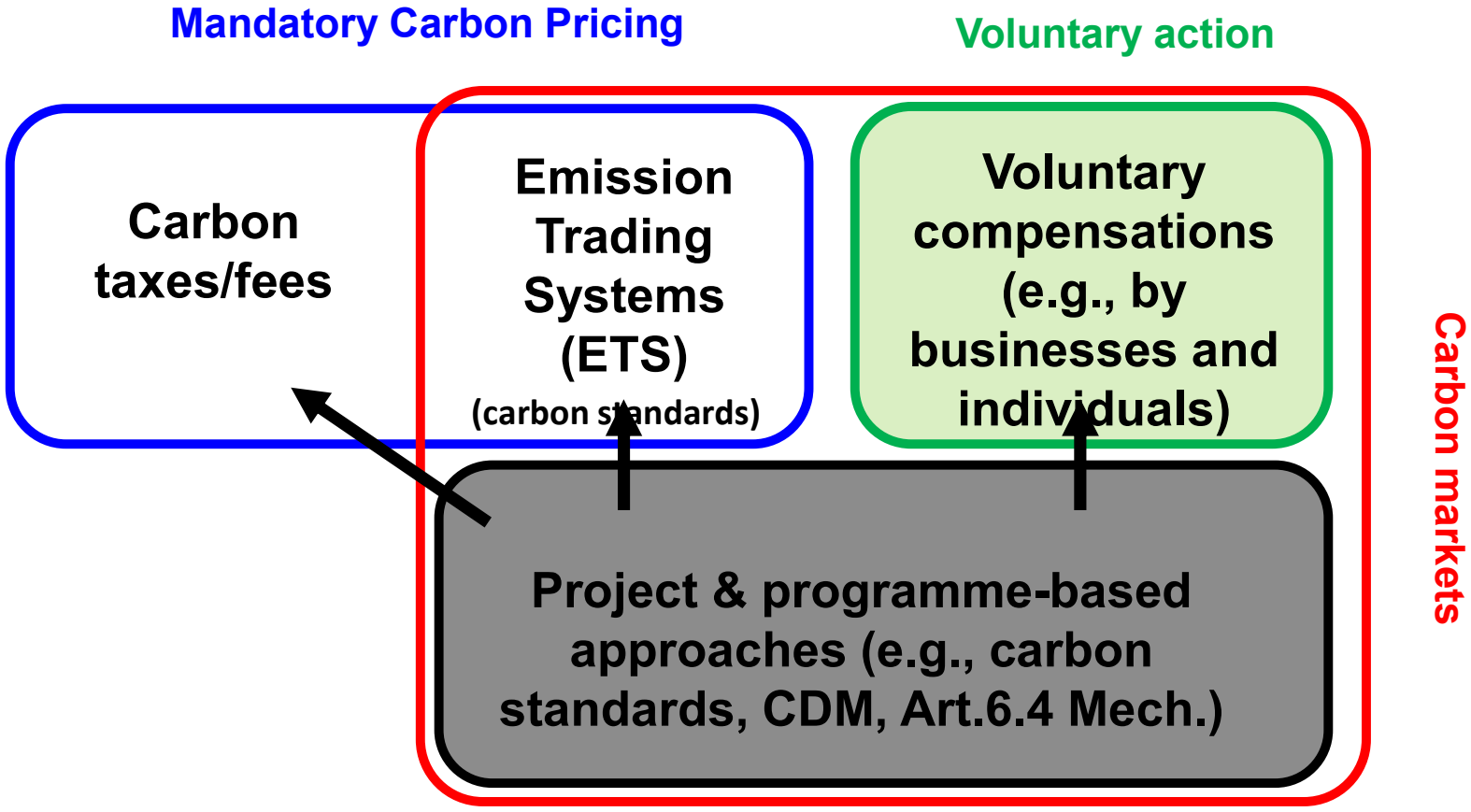
Landscape of Instruments



Which measures have which cost/effort?

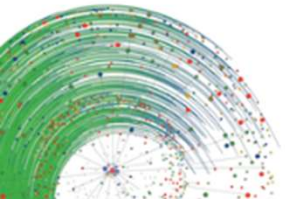
GHG/Efficiency targets	RE support	Others	RECS
		Obligations	FIT
Various policies	GHG/Efficiency standards	EV / road policy	
ETS	Carbon tax	National climate fund	
Programme-based activities	Fossil fuel taxation (or subsidies)	REDD+	
Project-based activities	Fee-bates		

About Carbon Pricing and Carbon Markets



Crediting Mechanisms

- A **crediting mechanism** (a baseline and credit system) enables remuneration of achieved emission reductions; tradable certificates are issued for actual emission reductions achieved
- Participation in a crediting mechanism is voluntary
- Demand for generated certificates can be created, for example, by allowing the certificates generated under the crediting mechanism to be traded in an emissions trading scheme or used against a carbon tax.
- In addition to the compliance market (with binding emission reduction targets), a market for voluntary use of greenhouse gas emissions has also developed in recent years, creating demand for carbon credits



Carbon Crediting Mechanisms

Examples for use of carbon credits under compliance systems

International credits

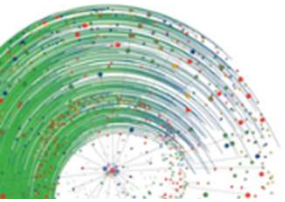
- The **Republic of Korea offset credit mechanism** was implemented to provide the offset credits for use within the Korea ETS; allows for ERs from outside to be reissued as KOCs
- The **Colombia Carbon Tax Offset System** was established to allow companies to offset emissions liable to carbon taxation. Voluntary cancellation of CERs against Colombia's carbon tax is possible.

Domestic Credits

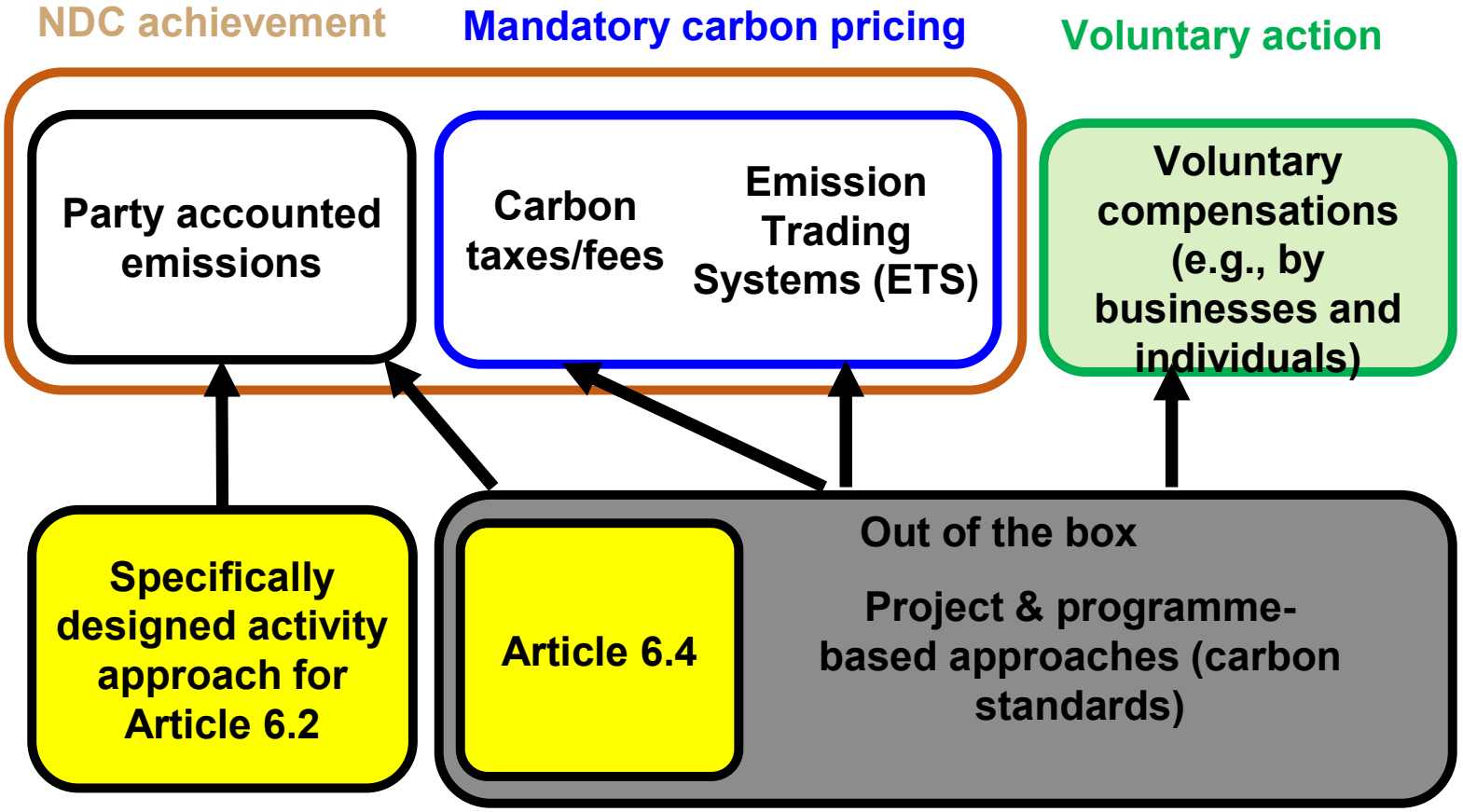
- The **California Compliance Offset Program** is the mechanism that supplies carbon offset credits within California's cap-and-trade program (*ARBOCs accepted by California ETS, Quebec ETS*).
- The Kazakhstan ETS sets out the option for compliance entities to utilize domestic offset credits to help meet compliance obligations; non-ETS sectors can seek to implement offset credit projects under a **Kazakhstan domestic crediting mechanism**.

Independent Credits

- The **South African Carbon Tax Act** allows companies to reduce their carbon tax liabilities by up to 10, whereby projects in South Africa developed under the CDM, VCS and the Gold Standard are potentially eligible.



About Carbon Pricing and Carbon Markets

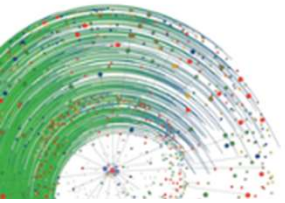


Carbon pricing/markets to achieve NDC pledges

Carbon Pricing

Carbon markets

- Consensus: needed for cost-effective mitigation
- Increasingly supported by countries(~100 countries): *members of V-20 forum, Coalition of finance ministers for climate action, 73 carbon pricing initiatives*
  - Both carbon pricing and markets are increasingly considered in country pledges: the Nationally Determined Contributions (NDC) under the Paris Agreement.
    e.g., New Suriname NDC
  - According to the World Bank, using carbon pricing approaches on a large scale to meet the emission reduction targets set in NDCs could reduce the cost of climate change mitigation by 32% by 2030.
    - Enabled under Art. 6 of the Paris Agreement
    - Rationale: worldwide uneven technical/economic potential for mitigation action

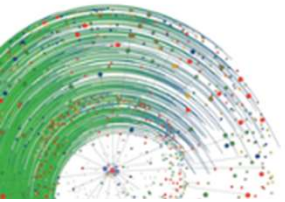


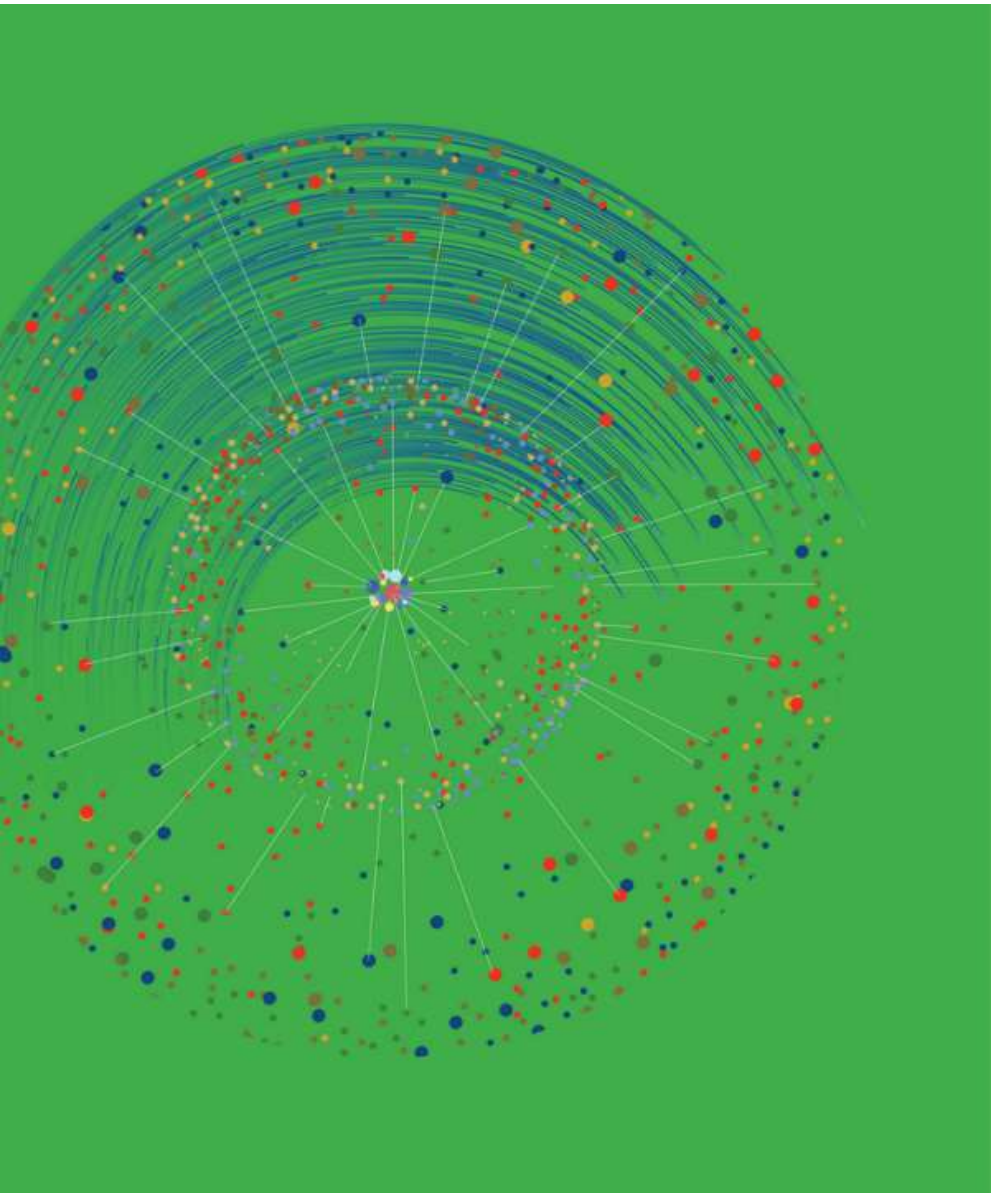
Relation to the Paris Agreement

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

- Carbon pricing can play an important role in realizing the ambitions of the Paris Agreement and implement the Nationally Determined Contributions (NDCs).
- Article 6.2: Establishes the potential of trading emission reduction credits across borders, between nations or jurisdictions. This can encourage the linking of carbon pricing approaches across countries and jurisdictions resulting in the reduction of emissions by a magnitude greater than what is possible solely domestically or nationally.
- Para. 136 of the first COP 21 Decision (1/CP.21 Adoption of the Paris Agreement): recognizes the important role of providing incentives for emission reduction activities, including tools such as domestic policies and carbon pricing.
- Two-thirds of all submitted Nationally Determined Contributions (NDCs) under the Paris Agreement consider the use of carbon pricing and carbon markets to achieve their emission reduction targets





United Nations
Climate Change

RCC MENA and South Asia
Collaboration for Climate Action

Open Discussion

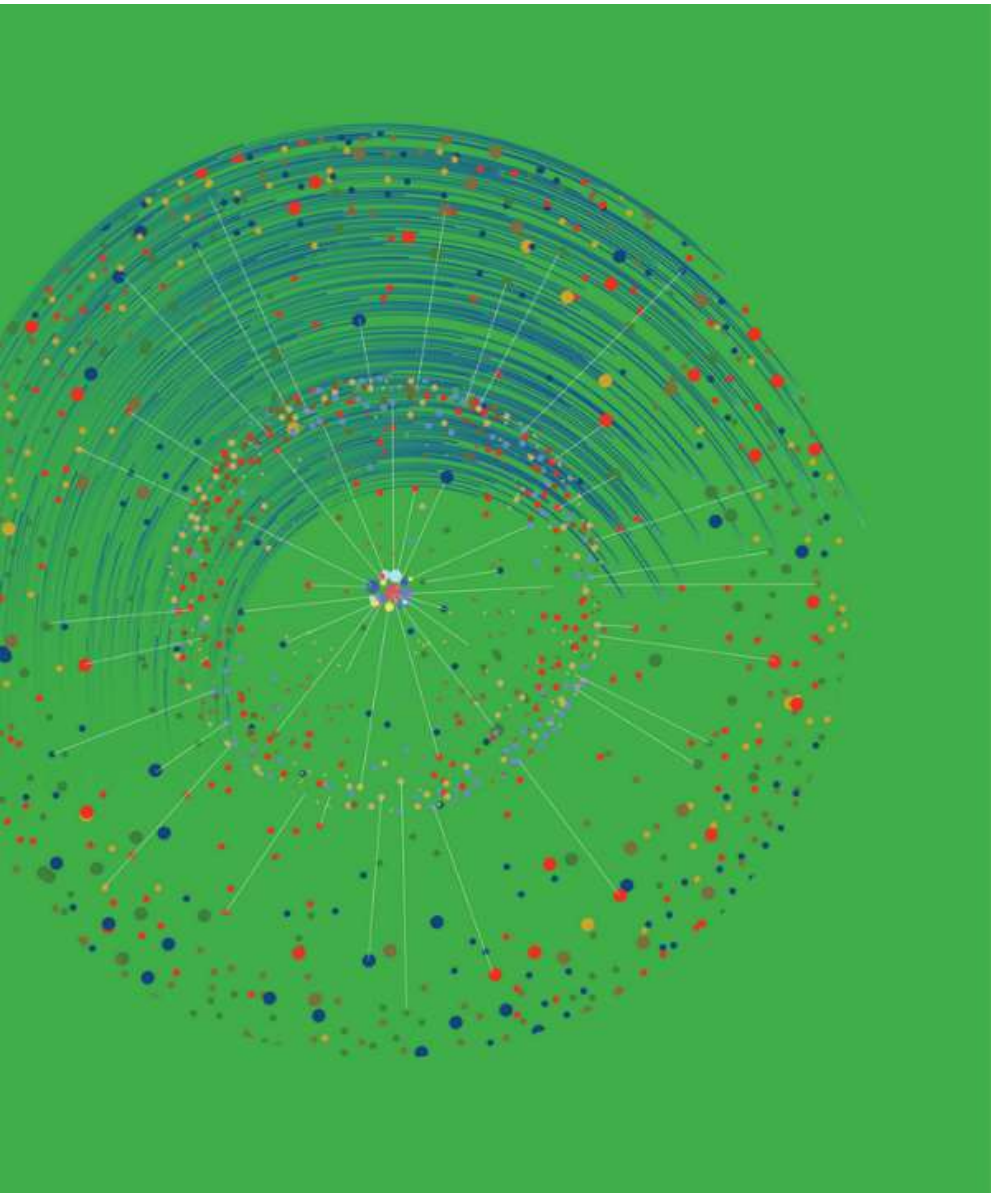
Carbon Trading Activities in Respective Countries and Private Entities

Investments in Low Carbon Technologies:

1. What are the current gaps in investments for low carbon technologies within your country?
2. What strategies can be employed to address these gaps and leverage carbon market policies to promote investment in low carbon technologies?

Operationalization of Carbon Trading:

1. What challenges do you face in the operationalization of carbon trading systems in your country?
2. How can these challenges be addressed, and what strategies could be implemented to effectively operationalize carbon trading mechanisms?



United Nations
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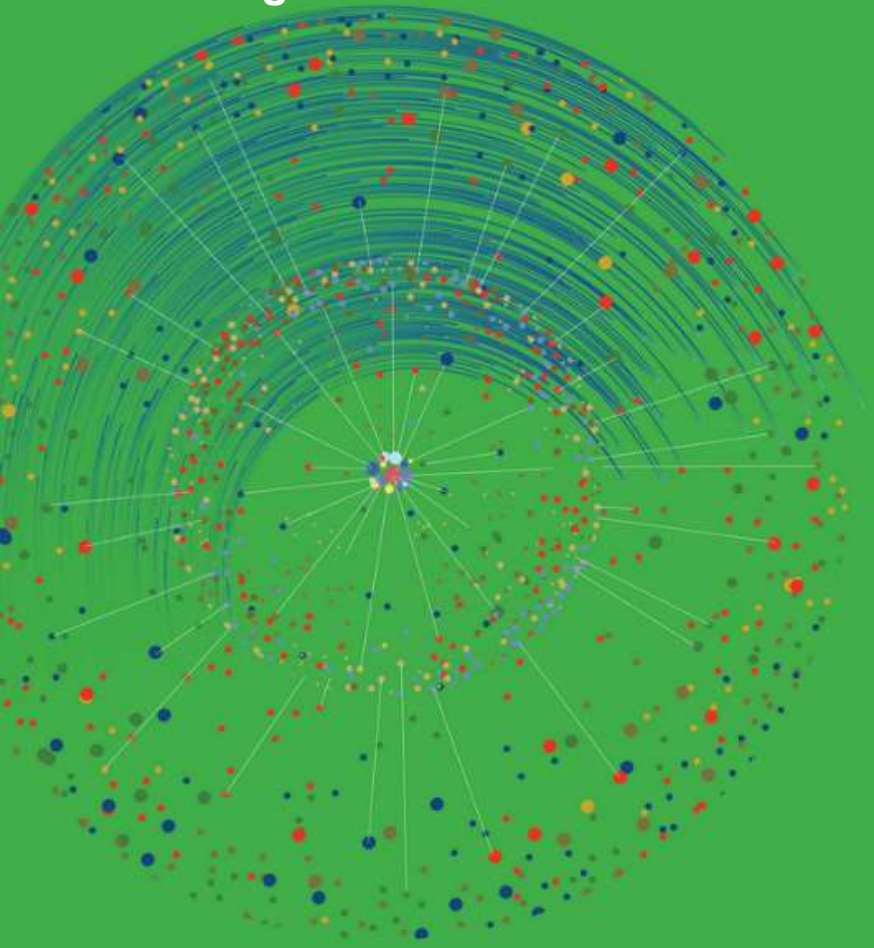
Lunch

DAY 1 : Understanding Carbon Markets & interlinkages with NDCs



Session 3

United Nations Climate Change

RCC MENA and South Asia
Collaboration for Climate Action

Implementing Carbon Pricing for Climate Action

Mr. Umamaheswaran Krishnan
Article 6 and Carbon Pricing Regional Expert
RCC MENA & South Asia

Carbon Pricing in Practice

* As of 2021

** Canadian Federal 'backstop' measure applied to provinces not already implementing carbon pricing. As of October 2020 this includes Alberta, Manitoba, New Brunswick, Northwest Territories, Nunavut, Ontario, Prince Edward Island, Saskatchewan, Yukon

From: INTERNATIONAL CARBON ACTION PARTNERSHIP
ETS BRIEF #8 Emissions Trading and Carbon Tax: Two Instruments, One Goal

Types Of Carbon Pricing

Characteristics	Carbon Tax	Emission Trading Scheme
Certainty of Prices	Price is set = certain	Price determined by supply/demand
Level of Emissions	Level of emission achieved uncertain	Level of emission is defined by system
Mode of Control	Tax rate on annual emissions	Setting allowed level of GHG emissions

- Both, Carbon Tax and Emission Trading Schemes, require
  - **Measurement methodology for estimating emissions**
  - **Regular Reporting to regulatory body to verify emissions**

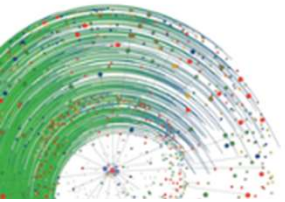
Carbon pricing…
….compared to other instruments

	Renewable energy	Low GHG fuels	Energy efficiency	Process emissions
Renewable energy mandates/markets/incentives	✓	✗	✗	✗
Energy efficiency certificate markets / incentives	✗	✗	✓	✗
Fossil-fuel tax (but one without "gaps")	✓	✓	✓	✗
Carbon pricing	✓	✓	✓	✓

Broadest range

Instruments to create a price signal on carbon

Energy-sector-only instruments	Pricing on GHG emissions
Fossil fuel tax	Carbon tax
Tradable energy efficiency certificates	Emission trading system (ETS)
Payments for renewable energy	Payments for emission reductions (e.g., CDM; carbon funds; etc.)
Tradable renewable energy certificates	Payments for REDD activities *(forestry)*
Incentivizing clean energy	Incentivizing emission reductions and carbon stocks



How carbon pricing works

A few considerations:

- Governments require tax income to be able to operate
- Carbon pricing is **not about increasing taxes**
- Carbon pricing is about **taxing the "bads"** (pollution) instead of taxing the "goods"

(e.g., tobacco products)

Response to signal	No response to signal
↑Reduces the associated health costs ↑Reduces associated import costs	↑Creates revenues

How carbon pricing works

A few considerations:

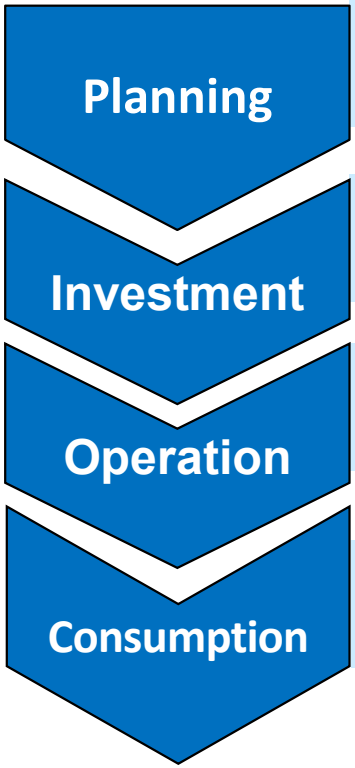
- Governments require tax income to be able to operate
- Carbon pricing is **not about increasing taxes**
- Carbon pricing is about **taxing the "bads"** (pollution) instead of **taxing the "goods"**

E.g..: payroll tax

↓ Discourages the creation of added value

↓ Encourages undeclared work / informal sector

How carbon pricing works

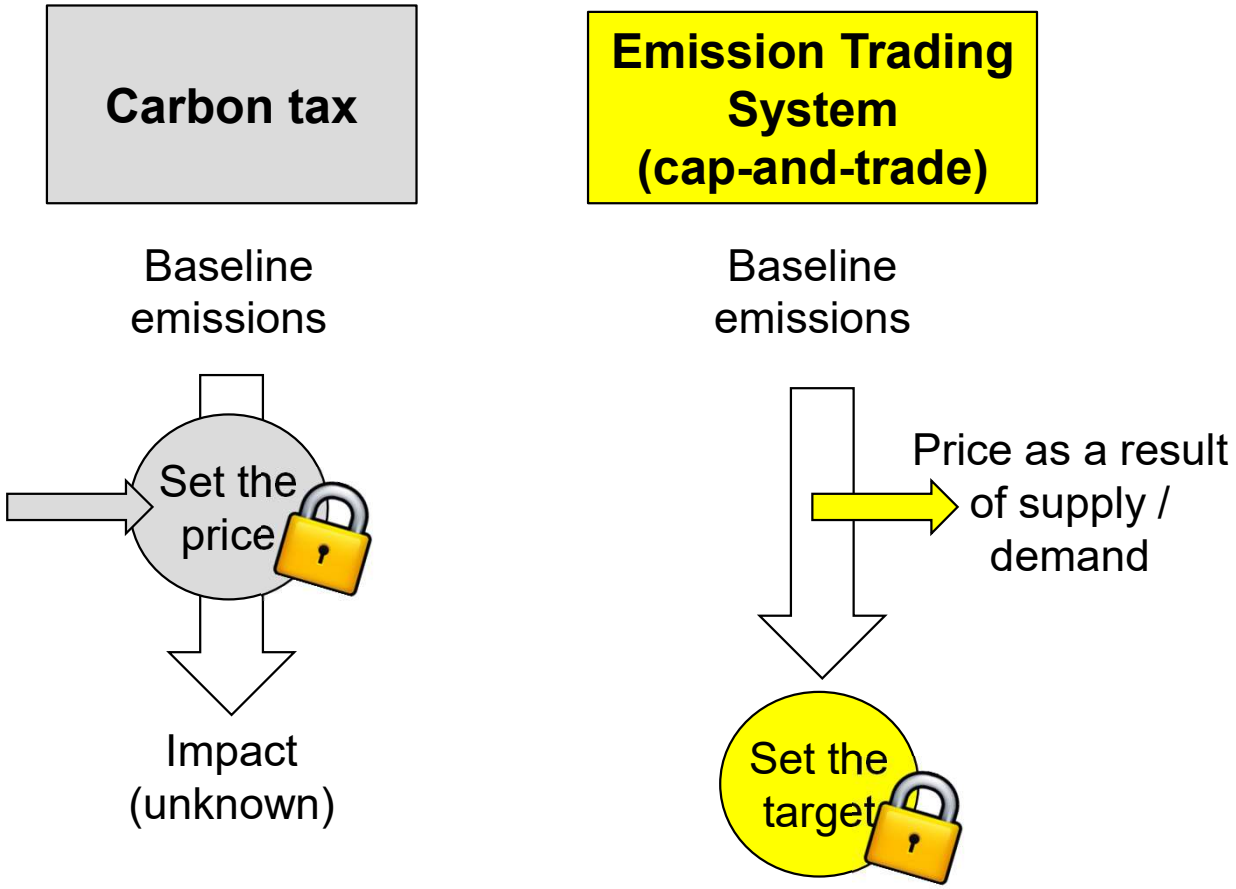


Taken into account in **development plans** by public and

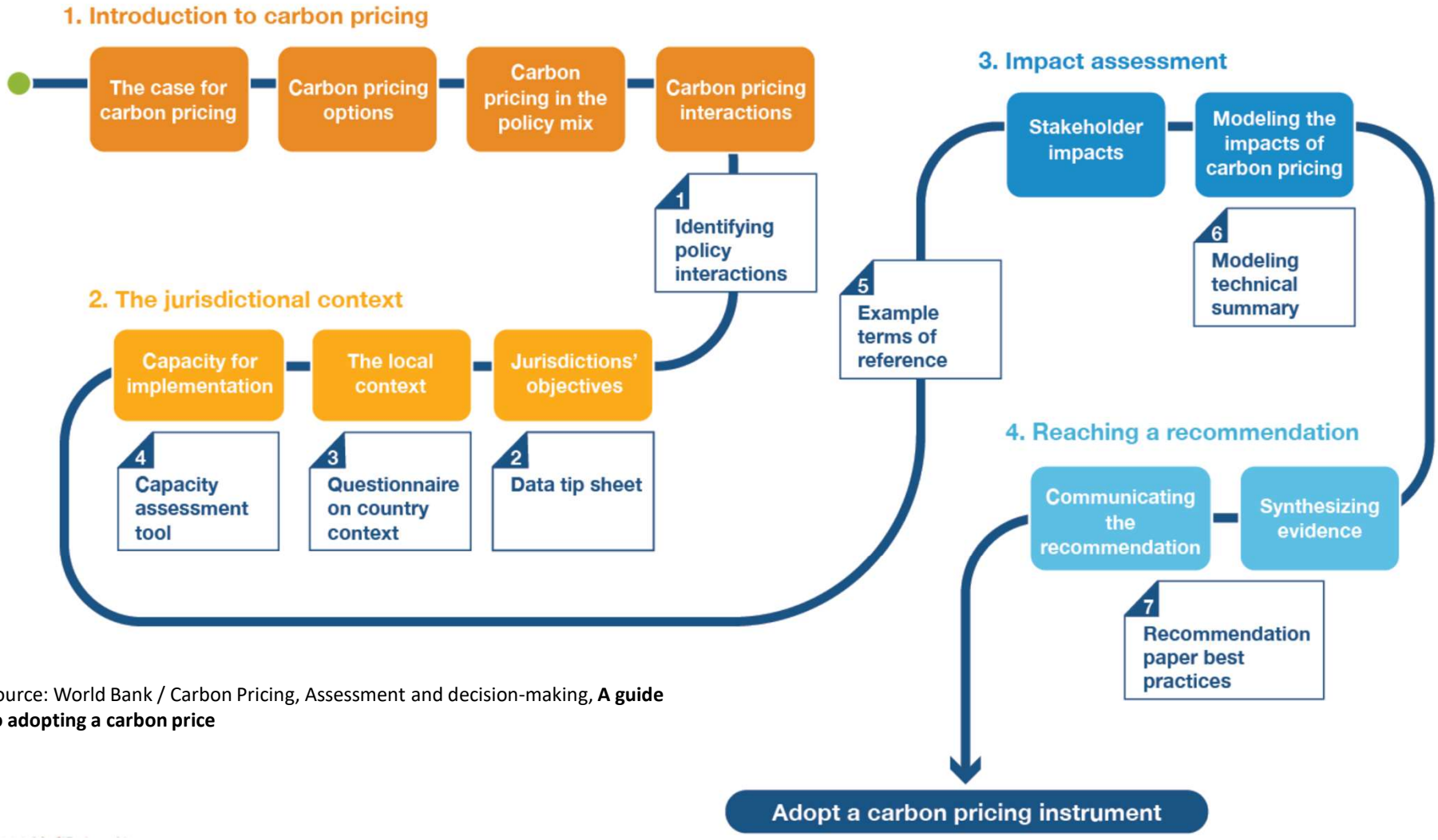
Through the whole economic decision chain

→ fosters a move towards low carbon technologies & practices

Pricing Carbon Emissions: Major Approaches



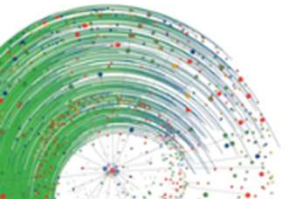
Steps to consider and introduce carbon pricing



Source: World Bank / Carbon Pricing, Assessment and decision-making, **A guide to adopting a carbon price**

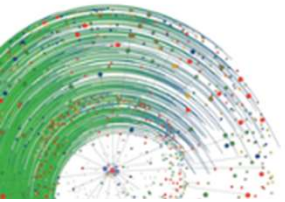
Carbon Pricing Initiatives : South Asia

Country	Carbon Pricing & Fees	Targets & Policies	Additional
Bangladesh	$3/mt CO2 (2022) rising to $25/mt (2030)	Aim to cut CO2 emissions by 12% by 2030	Sustainable Finance Policy circulated; ETS under consideration; IMF and OECD stress carbon pricing for alignment with the Paris Agreement
India	Proposed Carbon Credit Trading Scheme framework (2025)	Reduce GDP emissions intensity by 45% by 2030	Developing domestic carbon market; Gujarat's cap-and-trade scheme; National carbon tax on coal; tax-free infrastructure bonds for renewable energy
Pakistan	National Committee on Establishment of Carbon Markets	Plans for domestic ETS and international credit-based trading mechanisms	Drafting provisions under Article 6; exploring voluntary carbon market with Verra
Sri Lanka	National Committee on Establishment of Carbon Markets (Dec 2019)	Sri Lanka Carbon Fund (ETS)	Drafting provisions under Article 6; exploring voluntary carbon market



Common themes & Key aspects to consider

- Scope & coverage: which sectors/GHGs to include? Which threshold?
- Governance and oversight: which are the institutional arrangements?
- MRV and enforcement: who is in charge of MRV? Where does it take place?
- Revenues: how are revenues used?
- Flexibility and linking:
- Stringency setting (cap or price level): how to set it? When should it be revised?
- Discount or allocation of emission rights: yes or no? on which basis?

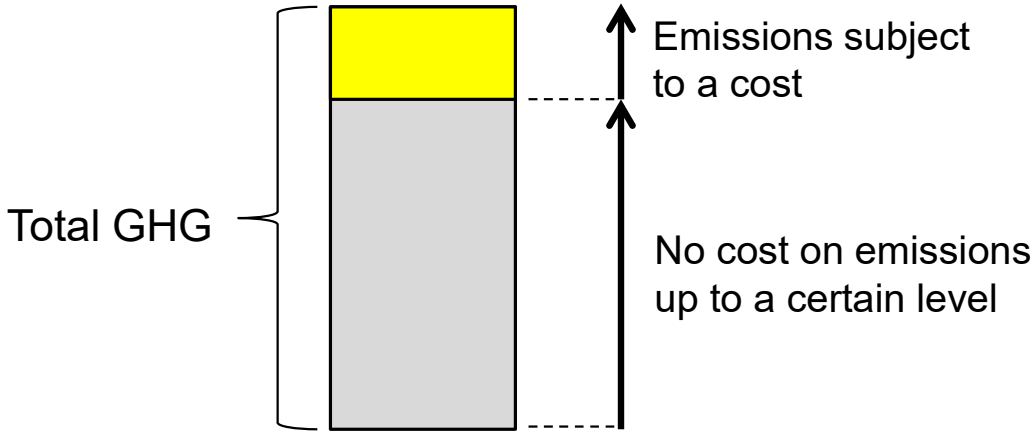


Price & Cost: not the same

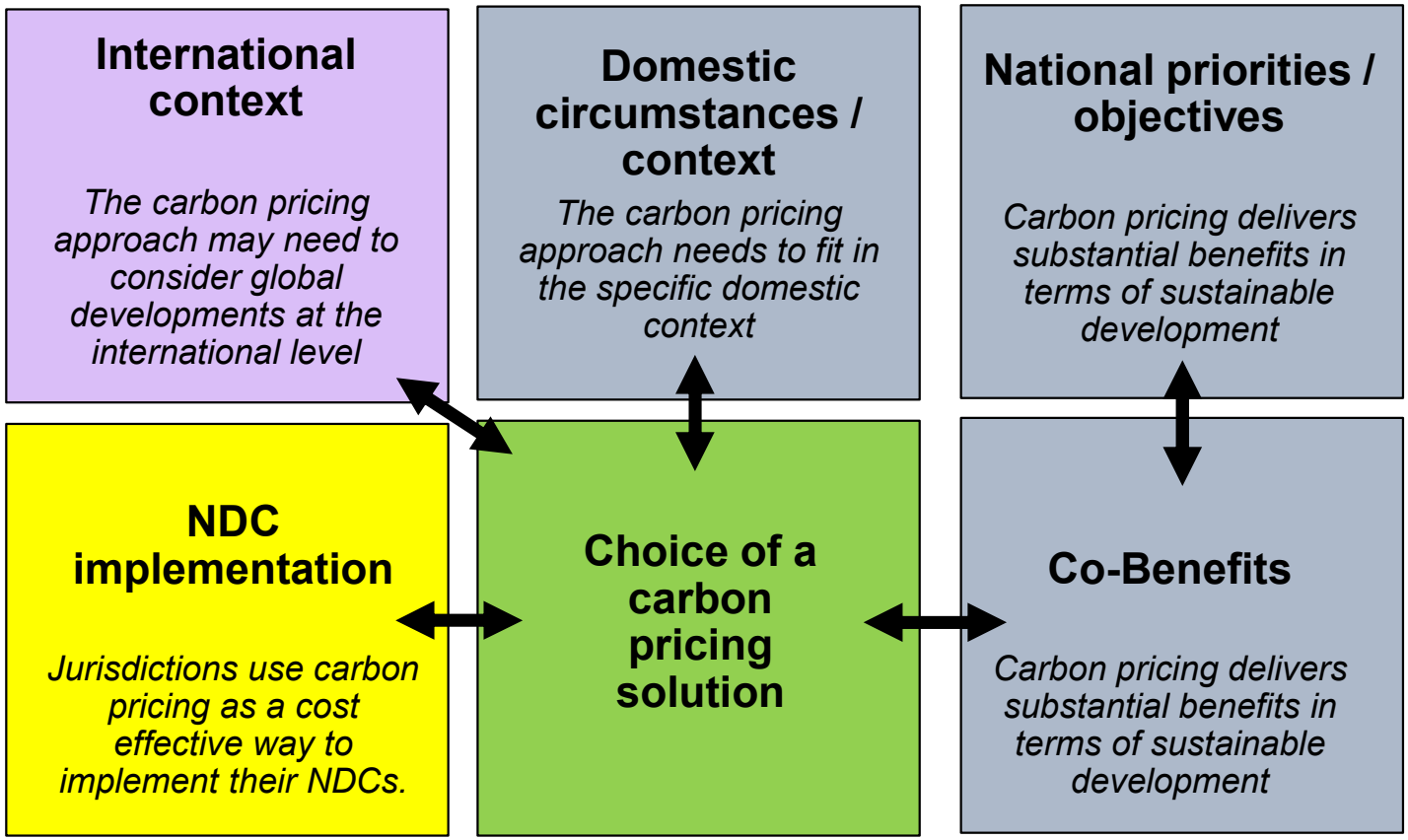
Cost: expense incurred ≠ **Price:** agreed value per unit

Concern: International competition limits the ability of many sectors to pass the carbon price to final customers: risk of "carbon leakage"

Solution: Allow a certain level of emissions which can be emitted free of cost for some sectors… while preserving the price signal on emissions:

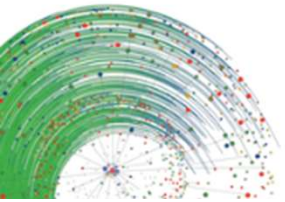


Choice Of A Carbon Pricing Solution



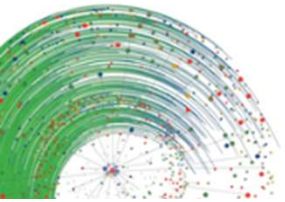
Carbon Tax and Emission Trading: Commonalities and Differences

- Both are regulated by the government
- Both put a price on carbon and thereby help to make low-carbon alternatives more attractive, changing consumption patterns and supporting low-carbon investments.
- individuals and firms can decide how best to respond to the price
- Generate public revenue that can be used, for example, to invest in climate and energy measures
- a carbon tax can be easier to implement (no new infrastructure required)
- ETS provides more flexibility (e.g., offsets, banking, extending ETS across borders by linking with other systems)
- Hybrid: Carbon tax and ETS are not mutually exclusive
  - possibility of complementary ETS and carbon taxes covering different sectors.
  - implement carbon tax as a step towards establishing an ETS
  - e.g., price floors and ceilings in an ETS; offset certificates instead of paying the carbon tax.

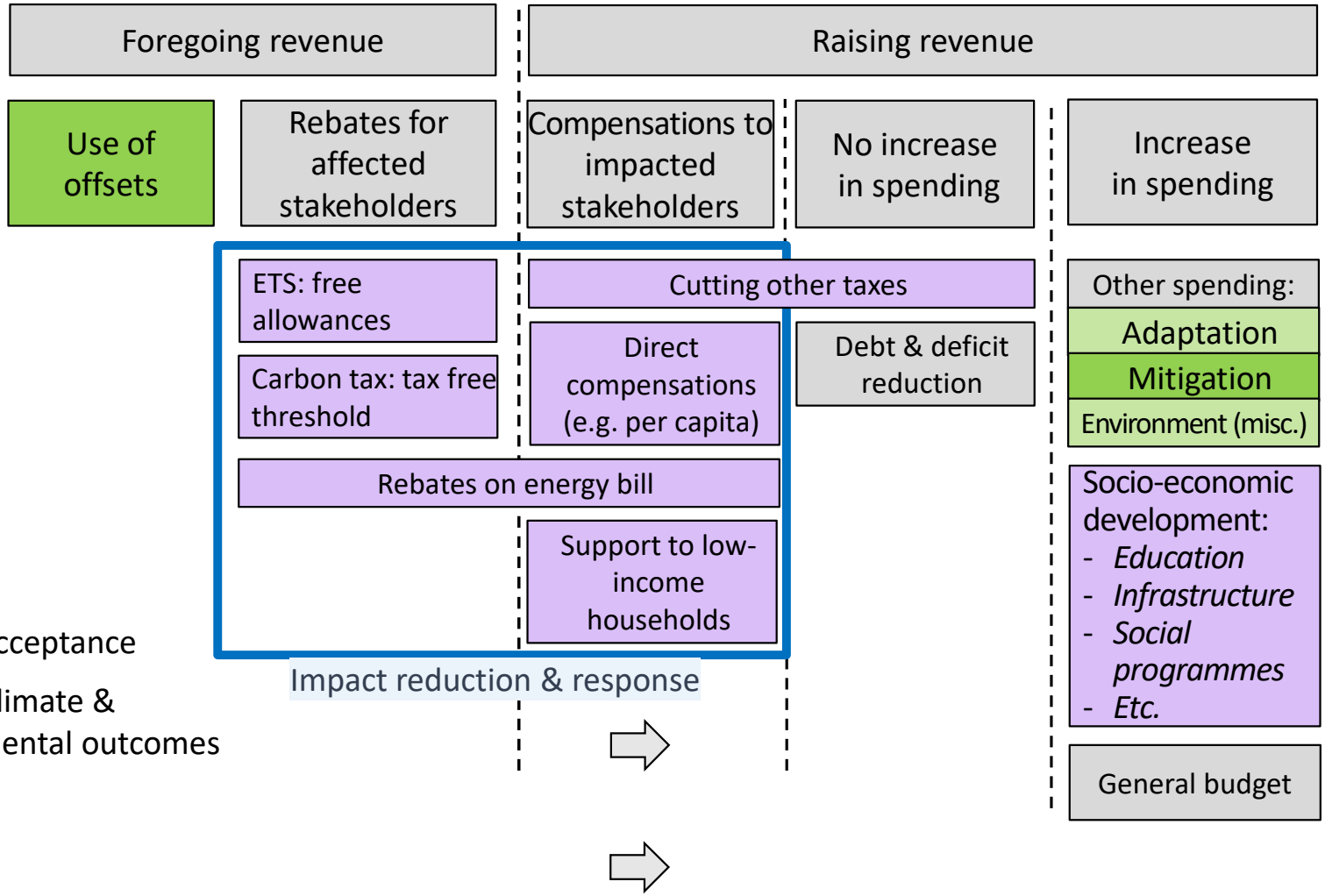


Achieving National Priorities

Objective / priority	Solution
Trigger investments	Revenues from carbon pricing to give loan guarantees for investors (e.g. in sustainable energy projects)
Limit trade exposure from pricing carbon	Provide large discounts and compensations to entities covered (e.g. free allowances under ETS)
Reduce poverty	Focus reinvestments in job creation
Increase energy access	Reuse income to fund/support sustainable decentralized energy access
Increase income equality	Redistribute the proceeds on a per capita basis
Improve business climate/competitiveness	Use revenues to cut taxes which hinder wealth creation (income tax / capital gain tax)
Ensure adaptation	Investments in adaptation measures
Increase energy independence	Reinvest in measures which reduce energy imports

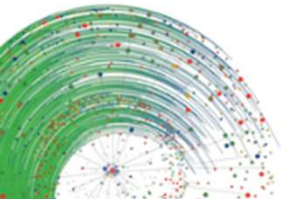


Carbon Revenues



Issues to consider related to carbon pricing

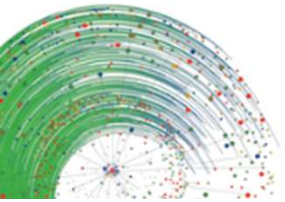
- A number of conditions are required to ensure that carbon pricing works:
  - A potential for low carbon alternatives…
    - Exists
    - Can be mobilized (not too high barriers - ideally an initial penetration of solutions already exists)
  - Funding/Financing is available for the economy to respond to the price signal
    - Returning the revenues of carbon pricing in the form of soft-loans is one option



Sectors where carbon pricing may not work

- Motorized vehicles:
  - The key barrier for switching to low carbon alternatives is the initial investment (purchase of a car)
  - Increasing the “cost of use” through carbon pricing will only marginally affect the purchase decision

  ➔ Sector better addressed through “fee-bates” (fees/rebate schemes)
- Informal sectors
  - Operation outside the legal framework → would not respond to an economic policy
- Agriculture
  - Scattered sources of emission which are difficult to control → better mobilized with incentive schemes
- Forestry
  - Highly complex sector which is better mobilized through other means

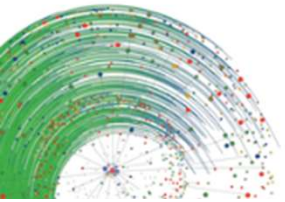


Issues to discuss about carbon pricing

- Initial introductory price may not be sufficient for putting countries on a path towards achieving the Paris Agreement

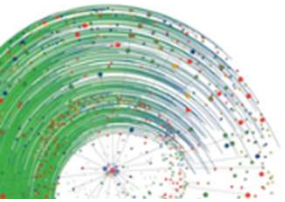
  - Carbon pricing alone may not be sufficient
  - Complementary measures may be needed (e.g., setting standards)

  - Economic actors however understand (and often expect) that carbon pricing will increase over time → planning for future higher carbon prices
  - Carbon pricing is a flexible instrument; its stringency and coverage can be revised up over time (e.g., along with climate commitments)
  - Long-term: Carbon pricing is an important tool for managing GHG emissions for as long as there are GHG emissions to manage



Comparing systems

	Carbon tax	Emission Trading System (ETS)	Hybrid system
Price setting	Direct	Market	Direct or Market + safety system
Price certainty	Yes		Possible
Achievement certainty	Unknown	Known	Possible
Coverage	Broad	Only large emitters	Flexible
Complexity	Low (levying a tax)	High	Depending on system
Transparency	High	Medium	Depending on system
Recognition of outcomes	Difficult	High	Possible
International linkage		Yes	Yes



Hybrid systems

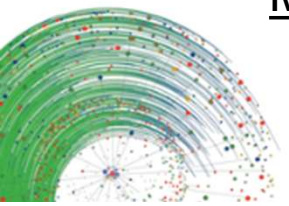
Current trend:

- Get the “best of both worlds” (ETS and carbon tax):
  - Flexibility for compliance
  - Price certainty

Example of hybrid system:

- Alberta (Canada); Participants can choose between
  (i) cutting their emission intensity;
  (ii) purchasing emission reduction credits or
  (iii) paying into an emission reduction fund

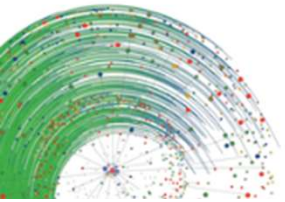
Many combinations of instruments possible



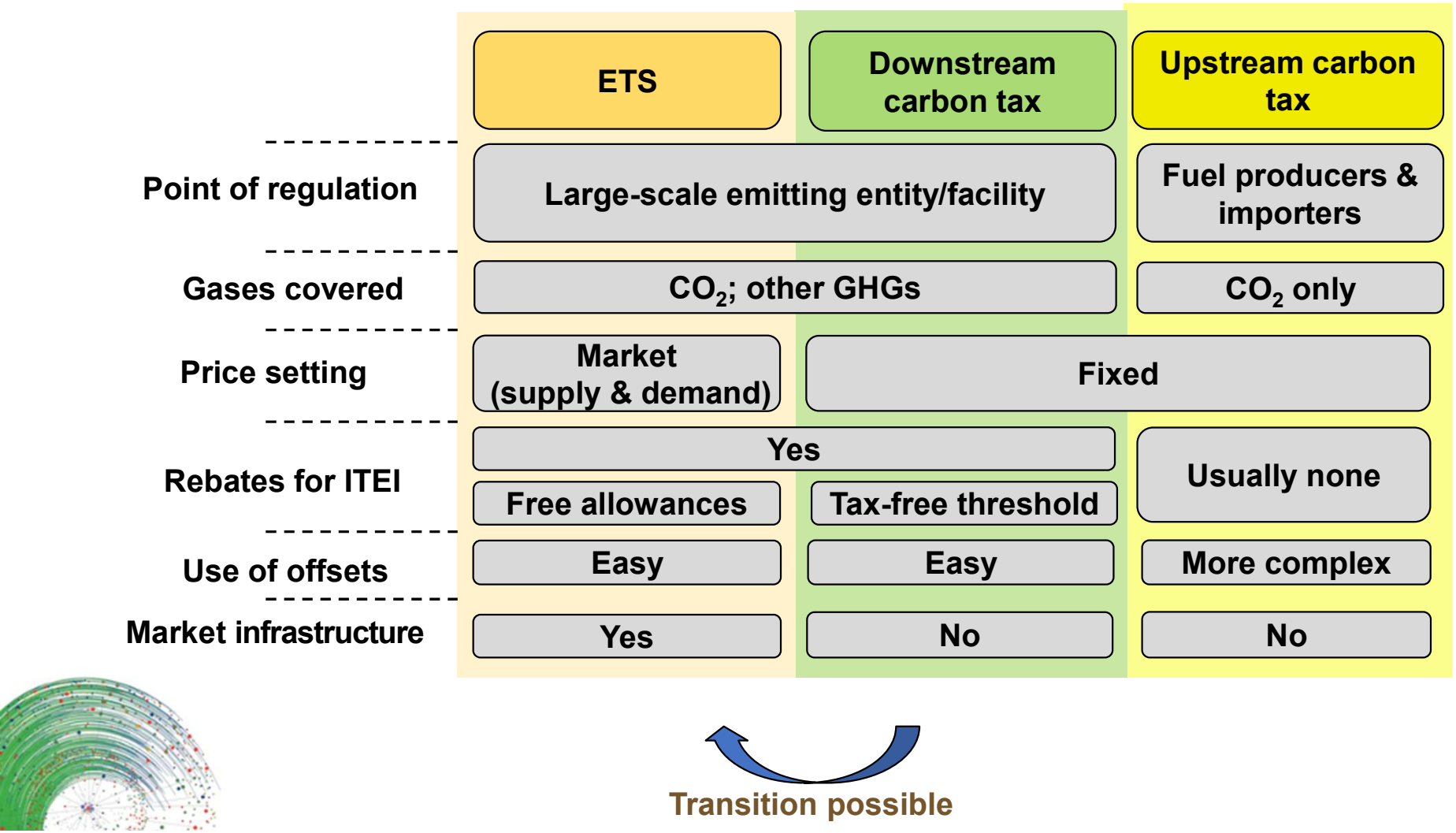
Combining instruments

Many options and combinations of instruments possible

- ETS on large emitters / carbon tax on small sources of emissions
- ETS or carbon tax + emission reduction fund
- ETS + use of offsets (e.g., EU ETS)
- Flexible carbon tax with use of offsets (e.g., South Africa)
- Energy efficiency performance tradings scheme + offsets (Thailand)
- ETS with adjustments for price
- ETS with floating/intensity-based cap: New Zealand



ETS, facility-based carbon tax, upstream carbon tax

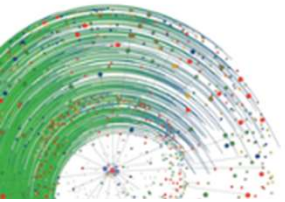


ETS, facility-based carbon tax, upstream carbon tax

ETS and downstream carbon tax:

Overall strong similarities !

- Same coverage: large scale emitters
- Both have a more granular and complex MRV – which also enables the coverage of more GHGs
- Both allow exemptions for internationally trade-exposed industries
- Key difference: price setting and need for market infrastructure
  - ETS: set by the ratio between demand and cap stringency
  - Tax: set fixed
- A downstream carbon tax can transition into an ETS
  - Additional elements required: market infrastructure; cap-setting approach; allocation approach



The national landscape … which elements are present?

	Examples	Likely impact on allowance demand and carbon price in an ETS
Complementary improve functioning of carbon markets	• energy market reform (e.g. facilitating cost pass-through) • infrastructure upgrades • energy efficiency labeling • pollution/emissions measurement	↓
Overlapping duplicate incentives in carbon markets	• feed in tariffs • green certificate programs, such as renewable energy targets	↓
Countervailing oppose incentives in carbon markets	• fossil fuel subsidies • industry tax breaks and special treatment	↑

Source: *Emissions Trading in Practice: A Handbook on Design and Implementation* 2021.

Carbon Pricing - Opportunities

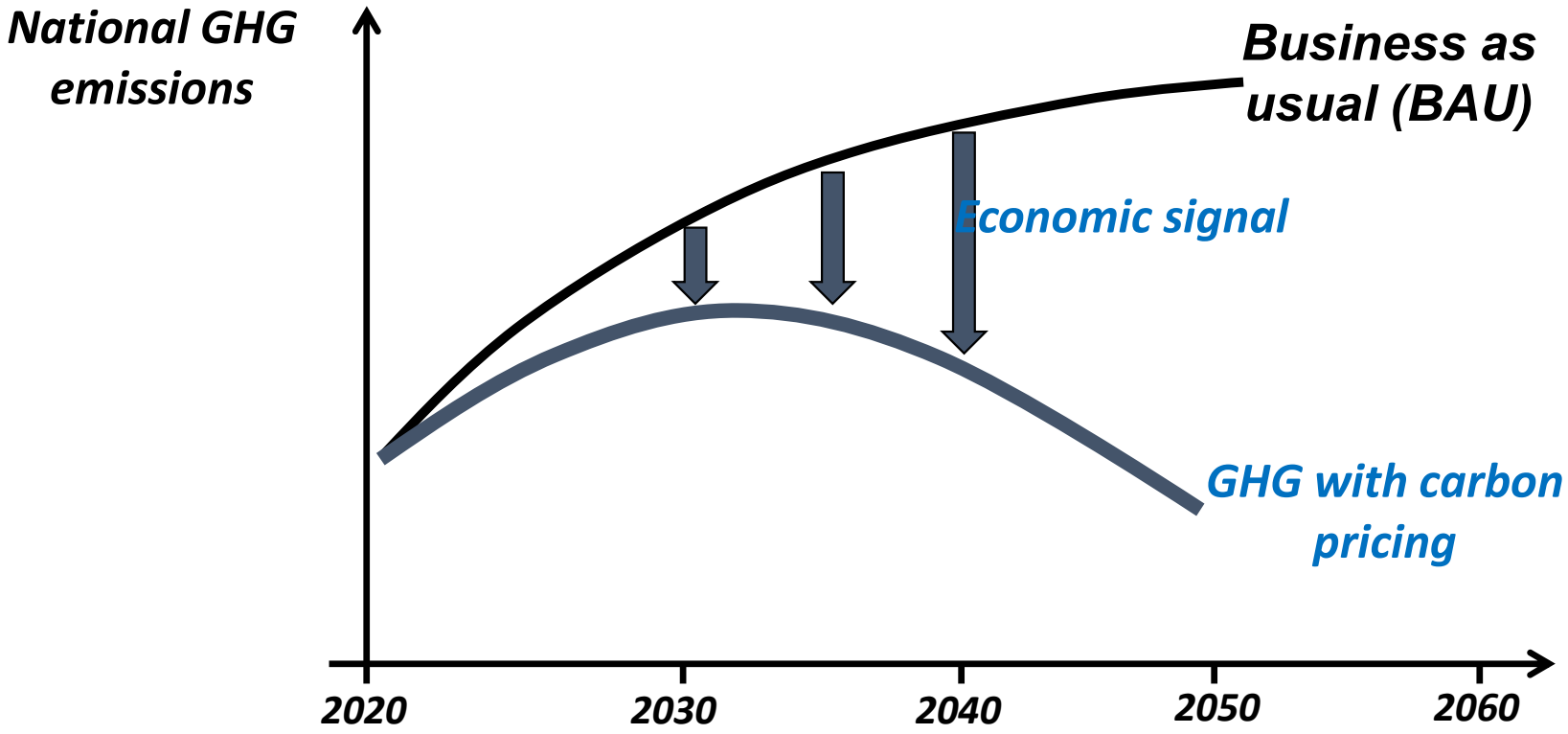
- **Putting a price on carbon reduces emissions and the costs associated with these emissions**, costs that end up being borne by everyone, including companies and societies, through an array of impacts resulting from climate change.

- Carbon pricing has long been recognized as a **cost-effective** means to reduce greenhouse gas (GHG) emissions.

- Proposed national actions to mitigate climate change, embodied by Nationally Determined Contributions (NDCs), are widely understood to be collectively insufficient to achieve the ambitious goals of the Paris Agreement.

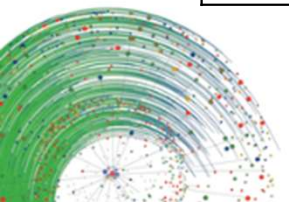
  ➢ Carbon pricing has proven to be one of the **most effective tools to unlock potential from the private sector**, companies, as well as investors. It is therefore an important **part of the toolkit** available to policy makers, both to **achieve current NDCs at least cost** and to **encourage greater ambition in future**.

Price signal on carbon emissions

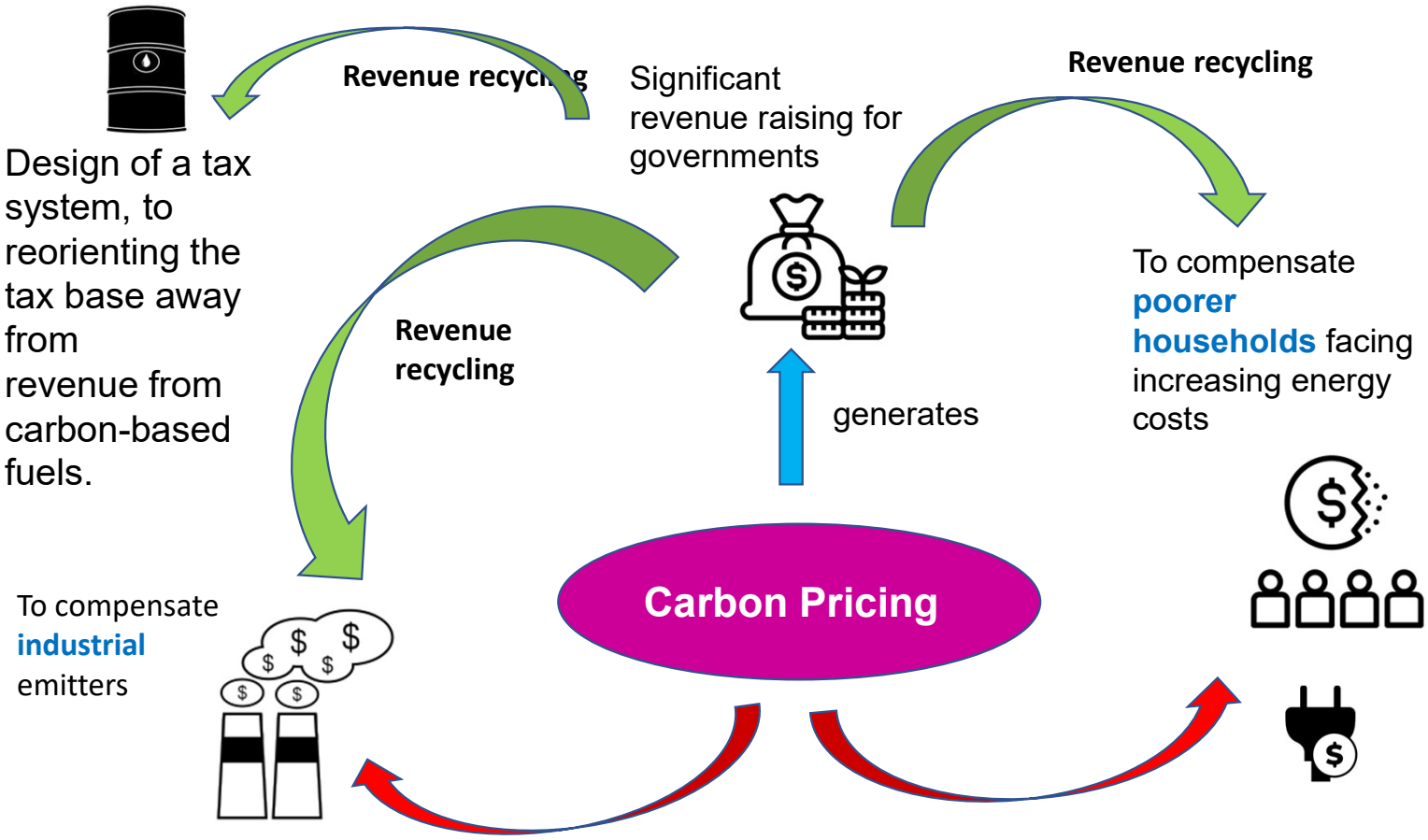


Achieving national priorities

Objective / priority	Solution
Trigger investments	Revenues from carbon pricing to give loan guarantees for investors (e.g., in sustainable energy projects)
Limit trade exposure from pricing carbon	Provide large discounts and compensations to entities covered (e.g., free allowances under ETS)
Reduce poverty	Focus reinvestments on job creation
Increase energy access	Reuse income to fund/support sustainable decentralized energy access
Increase income equality	Redistribute the proceeds on a per capita basis
Improve business climate/competitiveness	Use revenues to cut taxes which hinder wealth creation (income tax / capital gain tax)
Ensure adaptation	Investments in adaptation measures
Increase energy independence	Reinvest in measures which reduce energy imports



Carbon Pricing Impacts and Revenue Recycling



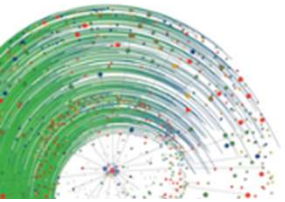
Co-benefits of carbon pricing

- **Reduce emissions**
- **Encourage action by peers**

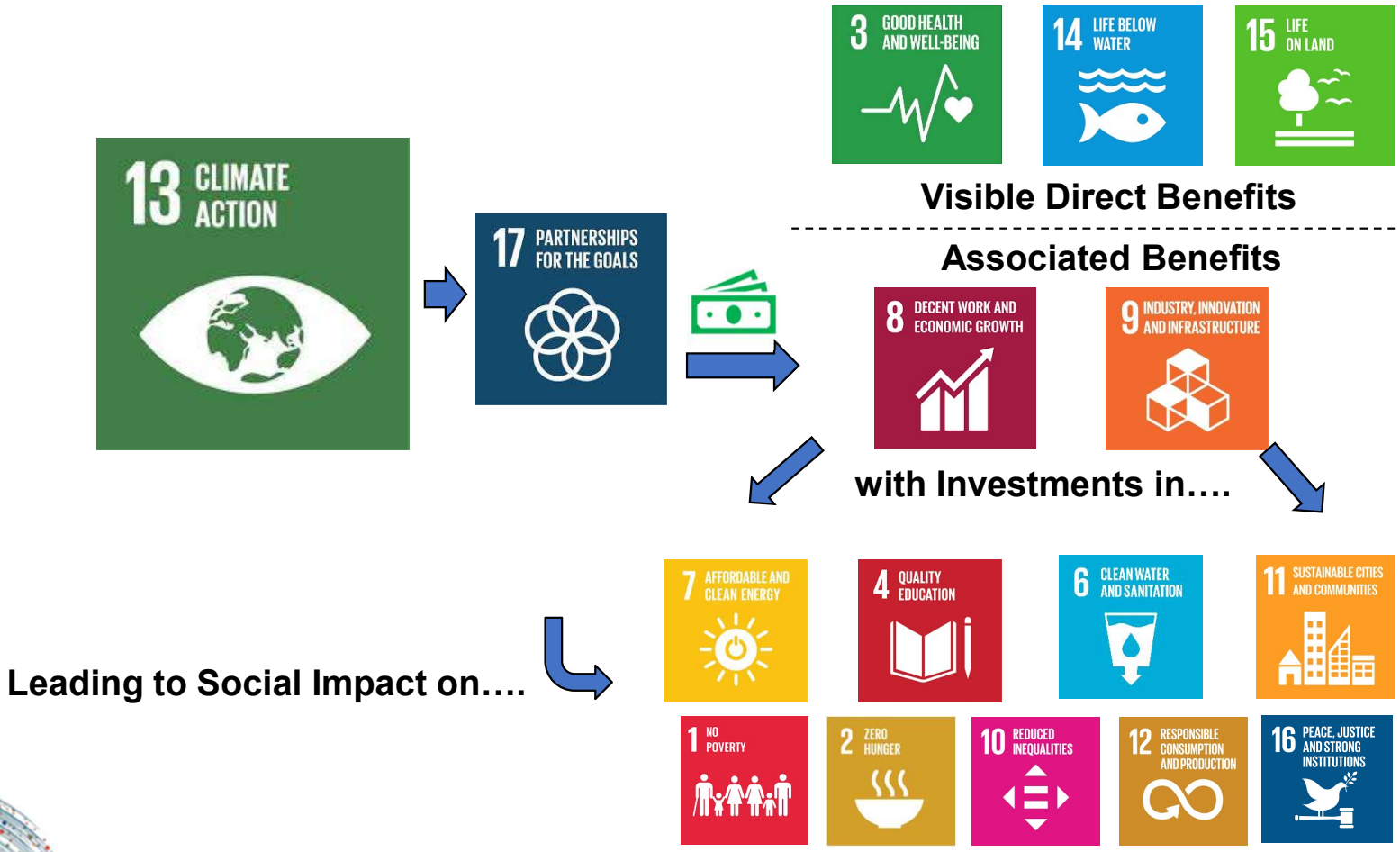
- Environmental and health benefits
- Economic diversification / job creation
  - Penetration of new technologies
  - Attracting investments
- Raises revenue for other purposes
  - Investments / cutting inefficient taxes
- Increased energy security
- Reduced waste
- Reduce the cost of fossil fuel subsidies
- Reduced exposure to carbon border measures

Benefits of Carbon Pricing

Help	• Facilitate emission pathways compatible with keeping global temperature rise to well below 2ºC above pre-industrial levels and pursuing efforts to hold the increase to 1.5ºC 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

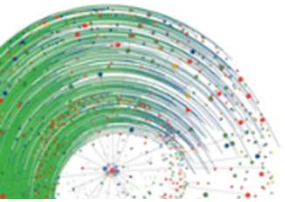


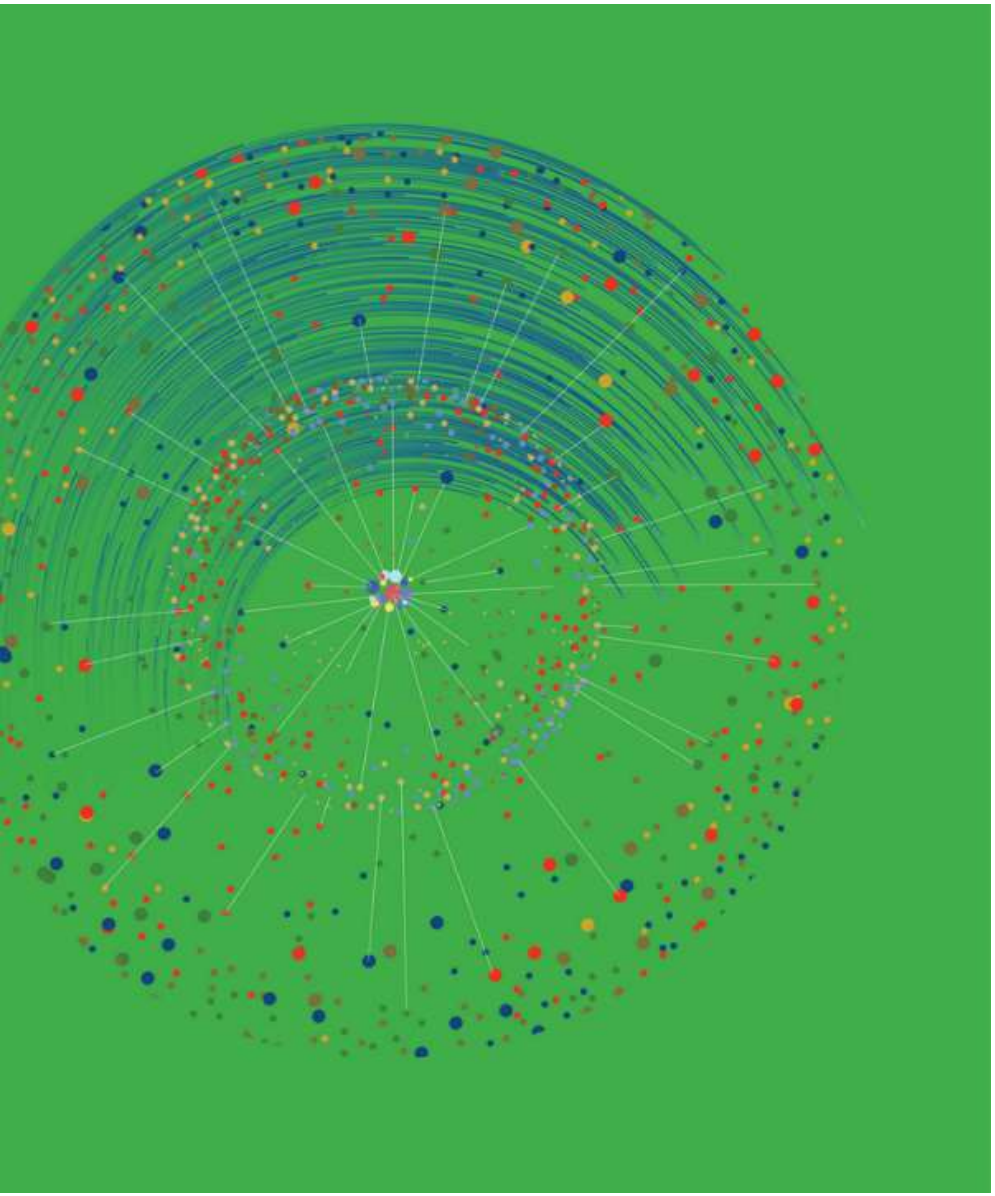
Carbon Pricing Co-Benefits against UN's SDGs



Actual Co-Benefits derived from Carbon Revenues

Programs		Examples
Action	Energy Efficiency Programs	• Home retrofitting, less CO2 over lifetime of installations, generated jobs • Bulgaria finances energy savings of public buildings • California created 60,000 energy efficiency projects for households and to coordinate energy efficiency with water efficiency
	Sectoral transformation	• Promotion of low/zero emission vehicles in road, transit, rail, maritime • Expand and improve public transport • Sustainable transport with electric vehicle incentives, sustainable mobility, consumer rebates for vehicles
R&D /Innovation		• Re-invested to advancing low-carbon technologies or building resilience • EU commercial scale demonstration of carbon capture and sequestration • Innovative mitigation technology, intelligent logistics in Quebec • Advanced mitigation technology for heavy duty vehicles, freight equipment • Healthy soils and manure management in agriculture, farm-waste-to-fuel
Compensating Households or businesses		• Direct bill assistance to lower income households • Re-invest in disadvantaged and low-income communities • Returned to consumers and businesses in the form of a dividend • Use revenues to reduce existing taxes on labor and capital (tax swap) to minimize economic costs, and result in net economic benefits • Wealth transfer to even out regional disparities • Support electro-intensive industries through transition phase

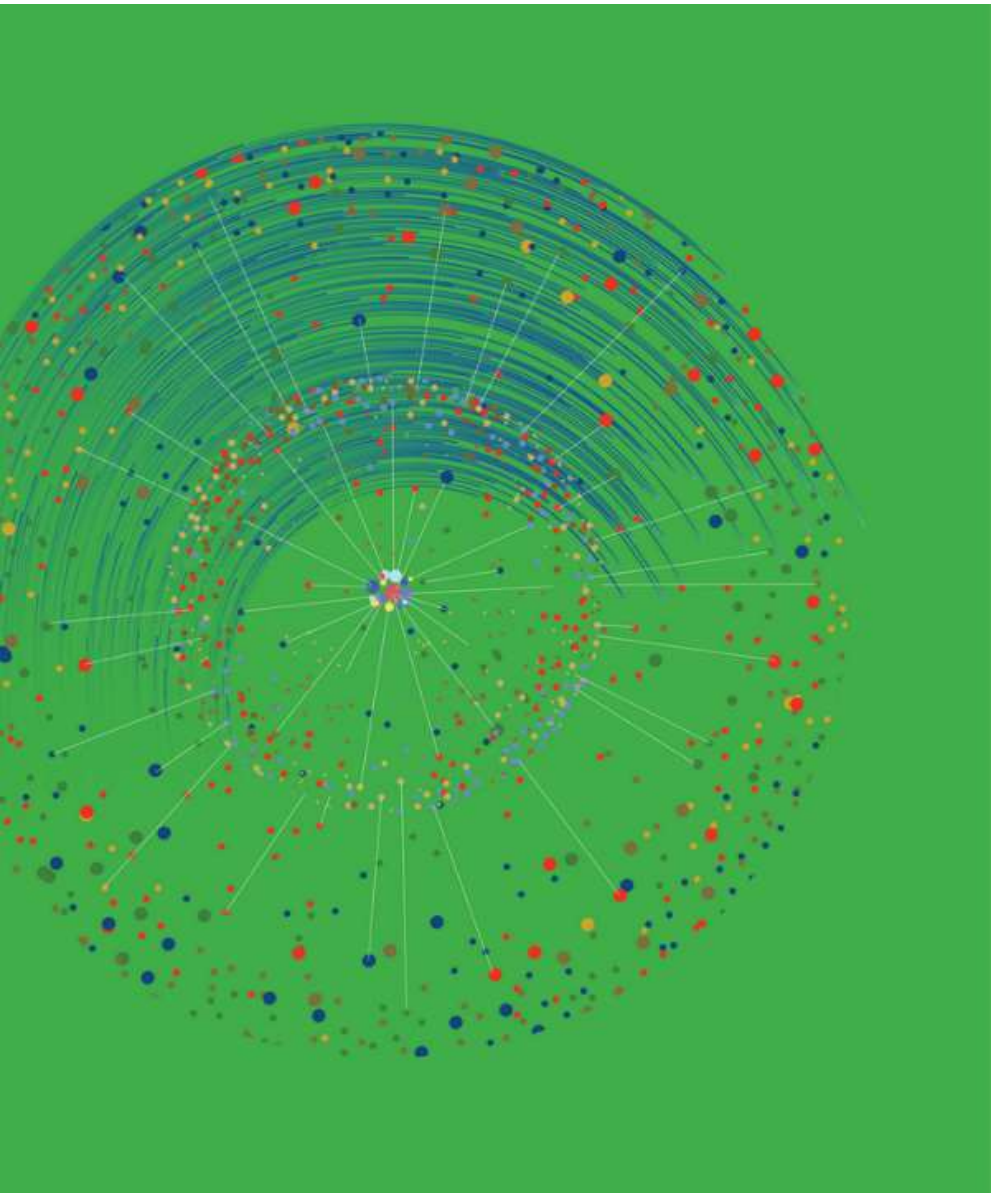




Reflections

Carbon Pricing: Trade-Offs in Design and Country Strategies Based on National Landscape

1. What motivated your country to plan and implement an ETS (Emissions Trading System)?
2. What steps did you follow in developing the ETS, and how did you select the priority sectors to target?
3. What challenges do you anticipate, and how do you plan to address them?
4. How did your country plan to utilize the revenue generated from the ETS?
5. What advice would you give to countries interested in implementing a carbon tax or ETS?

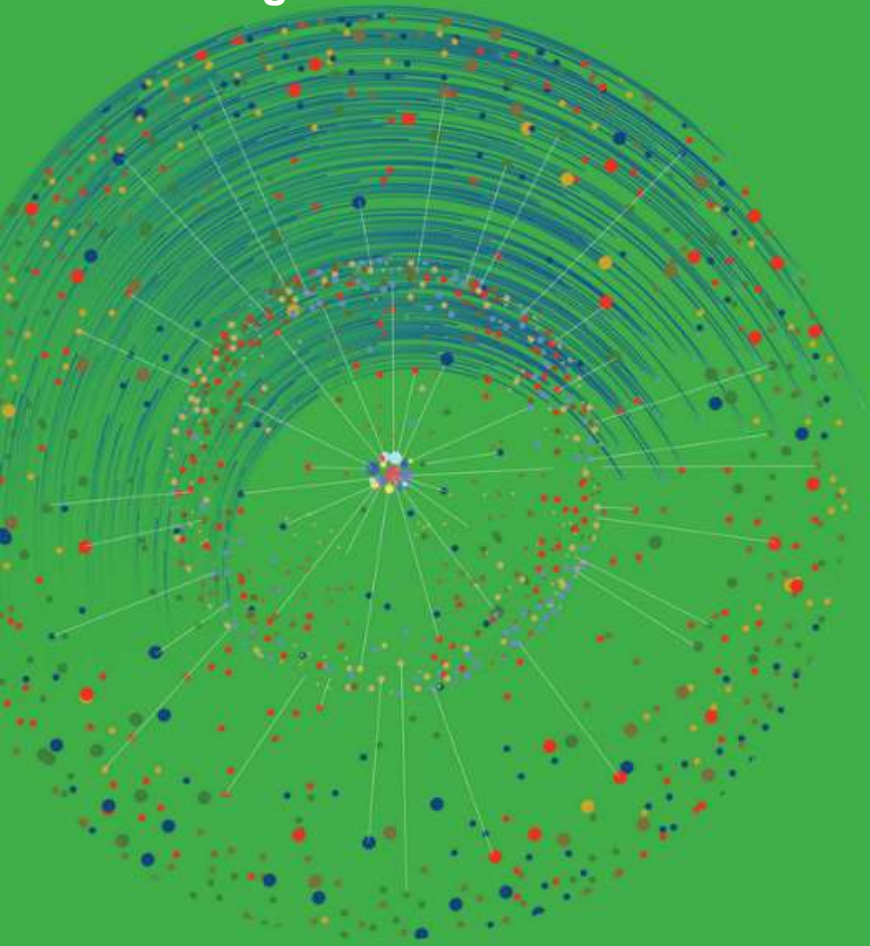


United Nations
Climate Change

RCC MENA and South Asia
Collaboration for Climate Action

Break

DAY 1 : Understanding Carbon Markets & interlinkages with NDCs



Session 4

United Nations Climate Change

RCC MENA and South Asia
Collaboration for Climate Action

Article 6 - Cooperative Approaches

Mr. Perumal Arumugam
Manager, UNFCCC

Paris Agreement

New Paradigm of Multilateral Agreements

Objective: Hold the increase in global average temperature as close to 1.5°C as possible.

5-year cycles to ambitiously increase climate action.

Bottom-up approach: Parties establish their own commitments, which must be communicated through Nationally Determined Contributions (NDC).

5 Main Elements of the Paris Agreement

Global Goals and Efforts

- Long-term temperature goal (Art 2.1.a)
- Global Peak and Carbon Neutrality (Art. 4.1)
- Global Adaptation Goal (Art 7.1)
- Mobilization of Climate Finance and alignment of financial flows (Art. 2.1.c and 9.3)

National Efforts (Parties)

- **Mitigation (Art. 4)** Nationally Determined Contributions **(NDC)**
- **Adaptation (Art. 7)**
- **Loss and Damage** (Art. 8)
- **Sinks and Reservoirs** (Art.5)
- **Voluntary Cooperation** (Art. 6)

Means of Implementation

- Support in Financing, Technology and Capacity Building (Art. 9, 10, 11)
- Education, training, public awareness and participation and access to information (Art. 12)

Transparency

- **Transparency: Reporting and Review** (Art. 13)
- **Implementation and Compliance** (Art 15.)

Global Emissions Balance

- Assessment of collective progress towards achieving the objectives of the Paris Agreement (Art. 14)
- **The First World Emissions Balance was presented in 2023** and every 5 years from now on .

Article 6 of the Paris Agreement

It lays down the foundation for cooperative approaches among countries to achieve their Nationally Determined Contributions (NDCs) and increase the ambition of these targets, focused on sustainable development and poverty eradication.

Additionally, Article 6 Cooperation seeks:

To incentivize and facilitate the participation of public and private entities in greenhouse gas emissions (GHG) mitigation and within the implementation of NDCs.

To Promote regional and international cooperation for ambitious climate action.

Understanding Article 6 (6.2, 6.4, 6.8)

Article 6 of the Paris Agreement : tool to implement NDC and LT LEDs under voluntary cooperation between parties

Art 6.2

- International cooperation that involves transfers of mitigation outcomes (ITMOs) from one country to another towards achieving NDC Targets.
- Decision 2/CMA.3 provides guidance for countries to cooperate in achieving their NDCs through the transfer of mitigation outcomes.
- Designed up to the participating Parties but requires that ITMOs are not counted twice (double counting), to ensure environmental integrity.

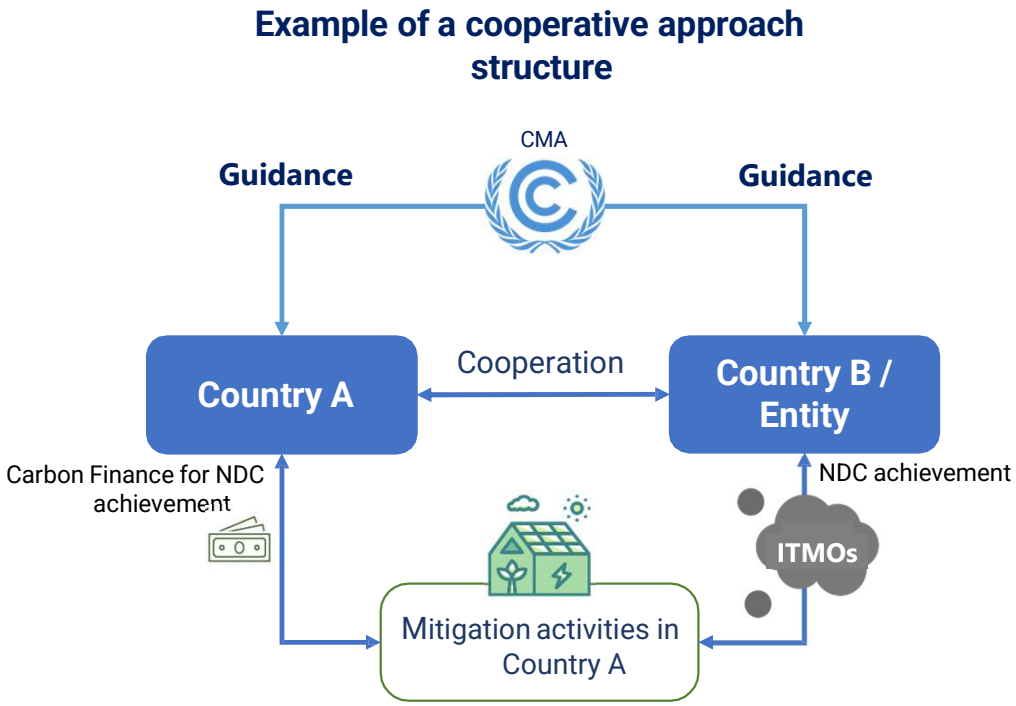
Art 6.4

- A centralized mechanism under the purview of the UNFCCC which issues units (A6.4ERs)
- Has similarities to the CDM in its design, but has new requirements and characteristics compared to the CDM

Art 6.8

- Focuses on other types of cooperation that contribute to reaching mitigation & adaptation goals, but do not involve transfer of Mos (units) among cooperating parties

Cooperation under Article 6 (6.2) of the Paris Agreement

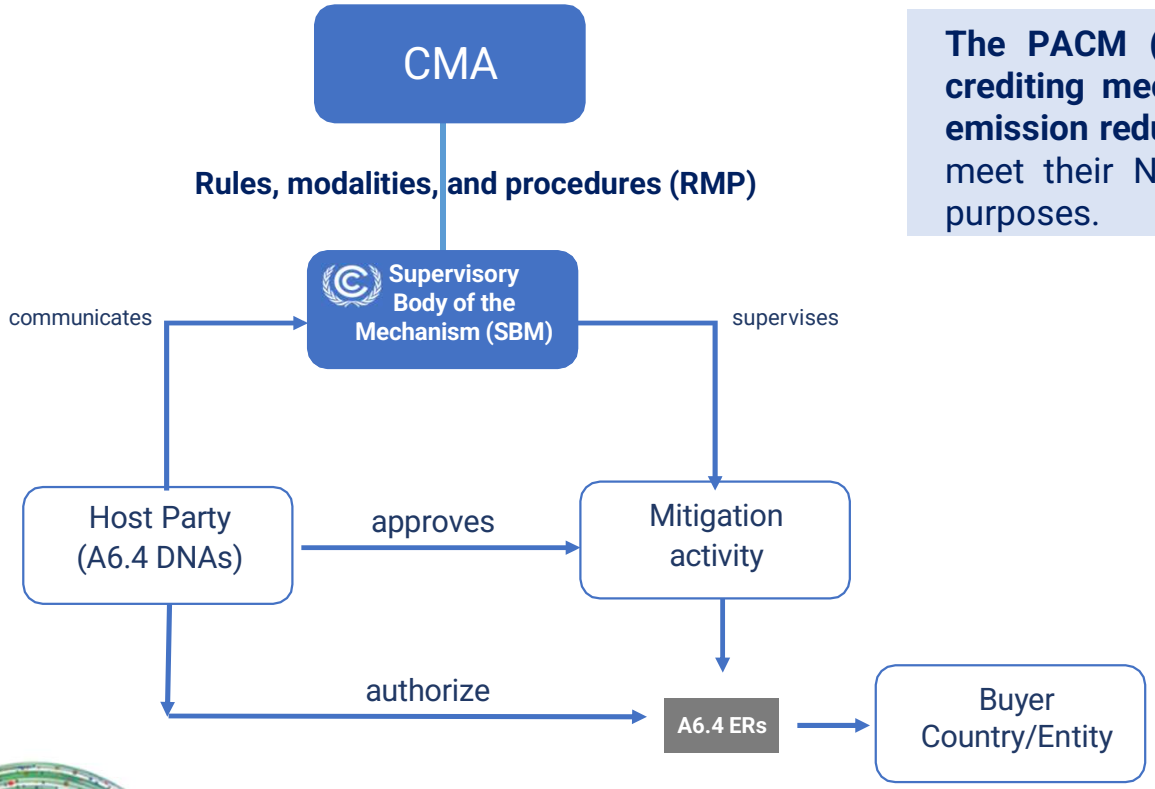


Source: Illustration extracted from the A6IP Capacity Building Tools, June 2024.

Source: Article 6 Pipeline, UNEP Copenhagen, 2024

Article 6.4 Mechanism

(Paris Agreement Crediting Mechanism: PACM)

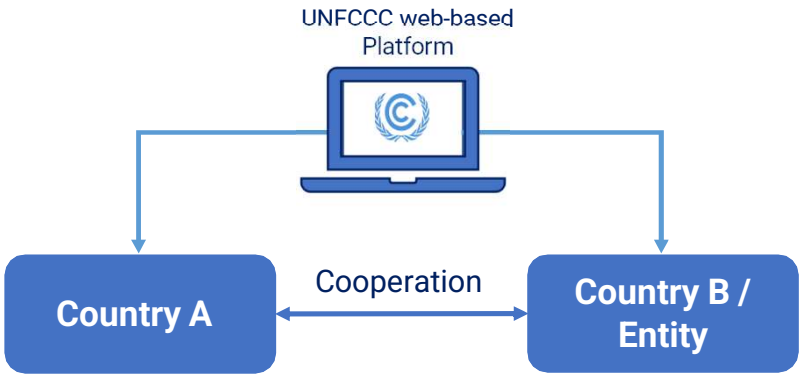


The PACM (established by Article 6.4) is a centralized UN crediting mechanism that enables the creation of **Article 6.4 emission reductions (A6.4ERs)** that can be used by countries to meet their NDCs (subject to authorization status) and other purposes.

Source: Illustration extracted from the A6IP Capacity Building Tools, June 2024.

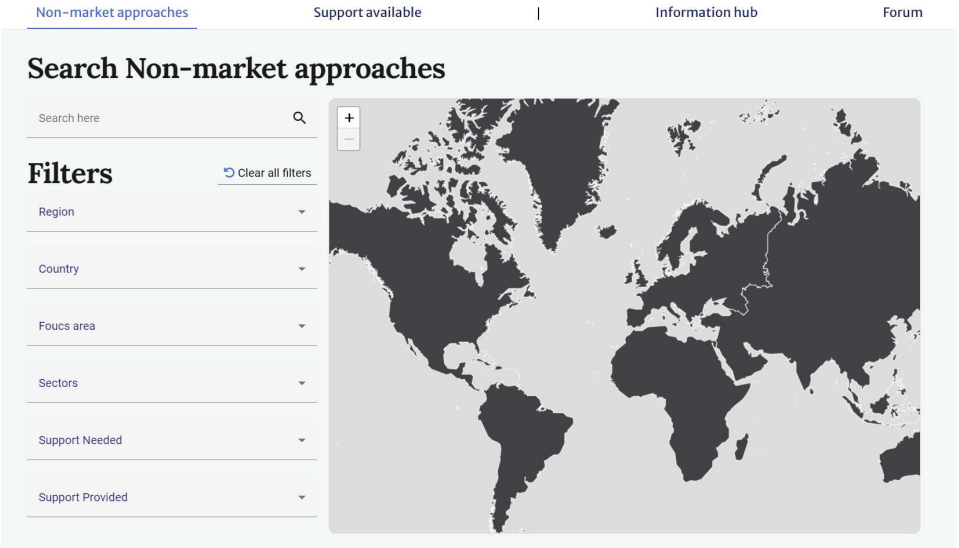
Article 6.8 Framework

Non-Markets Approaches



Source: Self-Elaboration based on information from the A6IP Capacity Building Tools, June 2024.

The framework for non-market Approaches (NMA) facilitates the use and coordination of NMAs and enchances, linkages/creates synergies between, inter alia, mitigation, adaptation, finance, technology development and transfer, and capacity-building. The framework is implemented through the work programme adopted at COP26.



Source: Image extracted from NMA Platform, UNFCCC Secretariat

Article 6 Rulebook: Key decisions on Article 6.2, 6.4 and 6.8

Component	Body	COP 26 Glasgow, 2021	COP 27 Sharm El-Sheikh, 2022	COP 28 Dubai, 2023
Article 6.2	**CMA**	**Decision 2/CMA.3** **Article 6.2 guidance**	**Decision 6/CMA.4** • Tracking guidance • Review guidance • Reporting outlines • Draft version for submitting annual information (AEF)	No further guidance
Article 6.4	**CMA**	**Decision 3/CMA.3** **Article 6.4 rules, modalities and procedures (RMP)**	**Decision 7/CMA.4** • Elaboration of processes, including on CDM transition • Rules of Procedure for A6.4SB	No further guidance
	A6.4SB		A number of standards and procedures developed by Article 6.4 Supervisory Body	
Article 6.8	**CMA**	**Decision 4/CMA.3**	**Decision 8/CMA4**	No further guidance

Other relevant decisions include e.g. Para. 77 (d) of Decision 18/CMA.1 (Enhanced Transparency Framework)

KEY DELIVERABLES AND OUTSTANDING ISSUES ON PACM

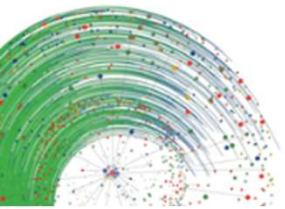
- **CMA Outcomes:**
- The (lack of) outcomes on A.6.4 at COP 28 is **wake up call for removal type of activities in carbon markets,** not just for A.6.4 (60% of traded volume in VC markets).
- The eventual outcome on methodological and removal guidance will set principles on how countries view permanence, reversal and environmental integrity.
- **Implementation:**
- **Mechanism registry** would be in place by **Oct 2024** to issue A.6.4 units.
- As on date **85+ countries designated national authorities** to deal with A.6.4, with two countries fulfilled their participation responsibilities.
- **1500+ CDM Activities submitted for transition under the PACM**, if approved by host parties, these activities can deliver A.6.4 ER units in 2024.
- A.6.4 standards are fully aligned with Paris and Glasgow rule books and would set **global benchmark for baseline and crediting mechanism standards**.

The SBM in its work to operationalize the A6.4 PACM

- Will fulfil all mandates and tasks assigned to it in accordance to the Rules, Modalities and Procedures (RMP)
- Forward recommendations to CMA 6 in Baku, Azerbaijan,
- Inform the CMA of its progress and seek further guidance, as needed
- Continue the relevant work to operationalize the PACM
- Develop standards, guidelines, and tools as necessary to enable the approval of A6.4 methodologies and thus registration of new A6.4 activities without delay

Article 6. 2 & 6. 4 outcomes from Bonn SB 60

- **Draft texts for A6.4 and 6.2 are now owned by Parties**
  - Almost everyone's views are captured – Draft text forwarded to consider in SBSTA 61
- **General agreement to request the secretariat to implement and update the status to CMA (A.6.2)**
  - Common nomenclatures
  - Confidentiality
  - Code of conduct for A.6 TERs
- **General agreement to forwarding discussion on certain issues to a future session**
  - **A6.4:**
    - National arrangements moved to 2028
    - Avoidance to 2028 - Emission avoidance is not included in the current RMPs
  - **A6.2:**
    - Avoidance to 2028

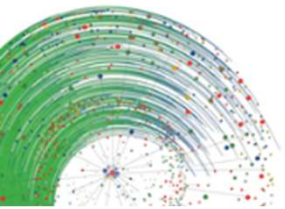


Article 6, paragraph 2, of the Paris Agreement – Outstanding issues

- **Authorization**
  - **Types:** Three separate types of authorization (cooperative approaches, entities and ITMOs) or one unified process
  - **Format:** Is it a voluntary authorization form, a mandatory authorization form, or no form at all?
  - **Content:** What information is required in the authorization? (6.4 inclusive)
  - **Changes:** can an authorization be changed or revoked or not? If it can, when and under what circumstances? (6.4 inclusive
- **Sequencing**
  - Does the **review of initial report** including resolution of any material inconsistencies need to be **completed before the agreed electronic format can be submitted**?
- **Registries**
  - Did CMA.3 and CMA.4 agree to two registry approaches for Article 6.2 registries, including the international registry (i.e. **hold and transfer ITMOs as units** and **pull and view data about units** held and transferred in underlying registries) **OR** agree to only one registry approach (i.e. **pull and view data about units only)**?
- **Agreed electronic format**
  - Are we **adopting an updated AEF in Baku** after testing the drafts from Sharm?

Article 6, paragraph 4, of the Paris Agreement – outstanding issue

- **Authorization of the use of A6.4 ERs**
  - **Timing:** can you authorize the use of A6.4 ERs after issuance? (6.4 specific)
  - **Mitigation Contribution Unit (MCU):** If at issuance there is no authorization statement provided by host Party, can A6.4ERs be issued as MCUs by default? (6.4 specific)
- **Mechanism registry**
  - **The nature of the connection:** can authorized A6.4 ERs in the mechanism registry be transferred and held in the international registry, OR can the international registry only pull and view data about the A6.4 ERs from the mechanism registry?
  - **Participating Party registry connection to the mechanism registry:** can the participating Party registry directly connect to and receive authorized A6.4 ERs from the mechanism registry?



The Supervisory Body (SBM) will complete its work on methodologies and removals guidance. Parties need to consider how and at what level they will engage with the work of SBM on these matters.

Article 6.2 outlook for 2024

- Revision of the A.6 Manual
- Training material for review
- Preparation for A.6 centralized review
- SBSTA chair outreach with HODs (Approach &Text)

- Revised A.6 Manual – Aug 2024
- Review training material – Aug2024
- First centralized review – Oct 2024
- RSA forum meeting for business rules and communication protocols – Sep/Oct 2024
- Intersessional workshop – Sep/ October 2024

Jan Feb Mar Apr May June July Aug Sept Oct Nov Dec

SB 60

SB 61
CMA 6

- **Centralized Accounting and Reporting Platform (CARP):**
  - **Assigning Co-op Approach identification**

Training of experts
Centralized review (first)

A.6 Nomenclature

Secretariat reports
Progress on implementation

Secretariat: infrastructure development, review arrangements, capacity building

Next Two Days – Operationalisation of A6

Unlocking Art 6 Potential and Catalyzing climate action for NDCs

Operationalising Art 6 in South Asian Countries

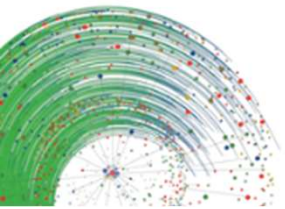
Article 6.2- Reporting, Reviewing and Tracking

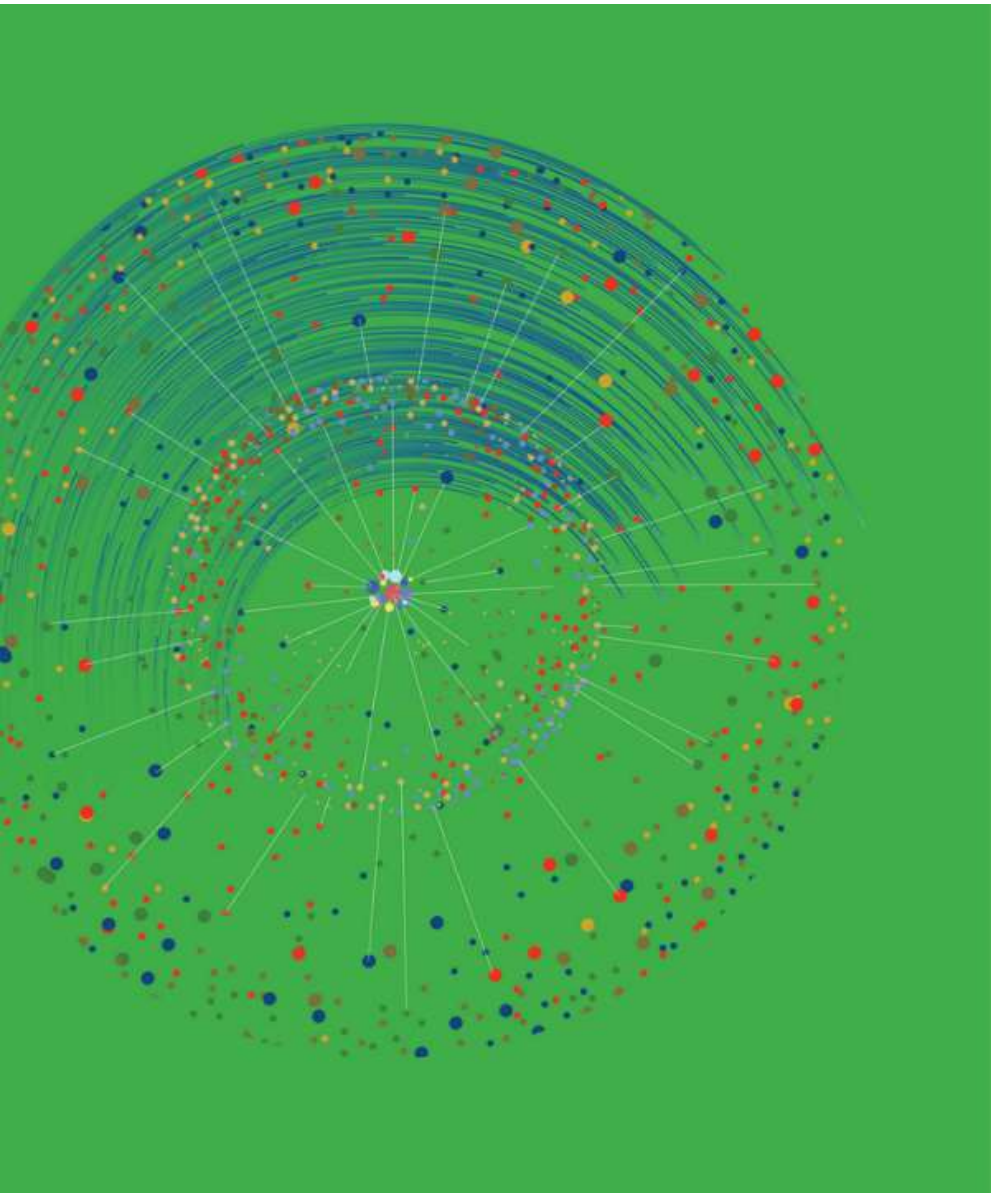
Article 6 - Simulated Exercise on Reporting, Reviewing and Tracking

Leveraging the Article 6 : Institutional Engagement and Basic Requirements

Roles, Responsibilities and Participation Requirements

Digital Solutions to operationalise A6 : Market infrastructure

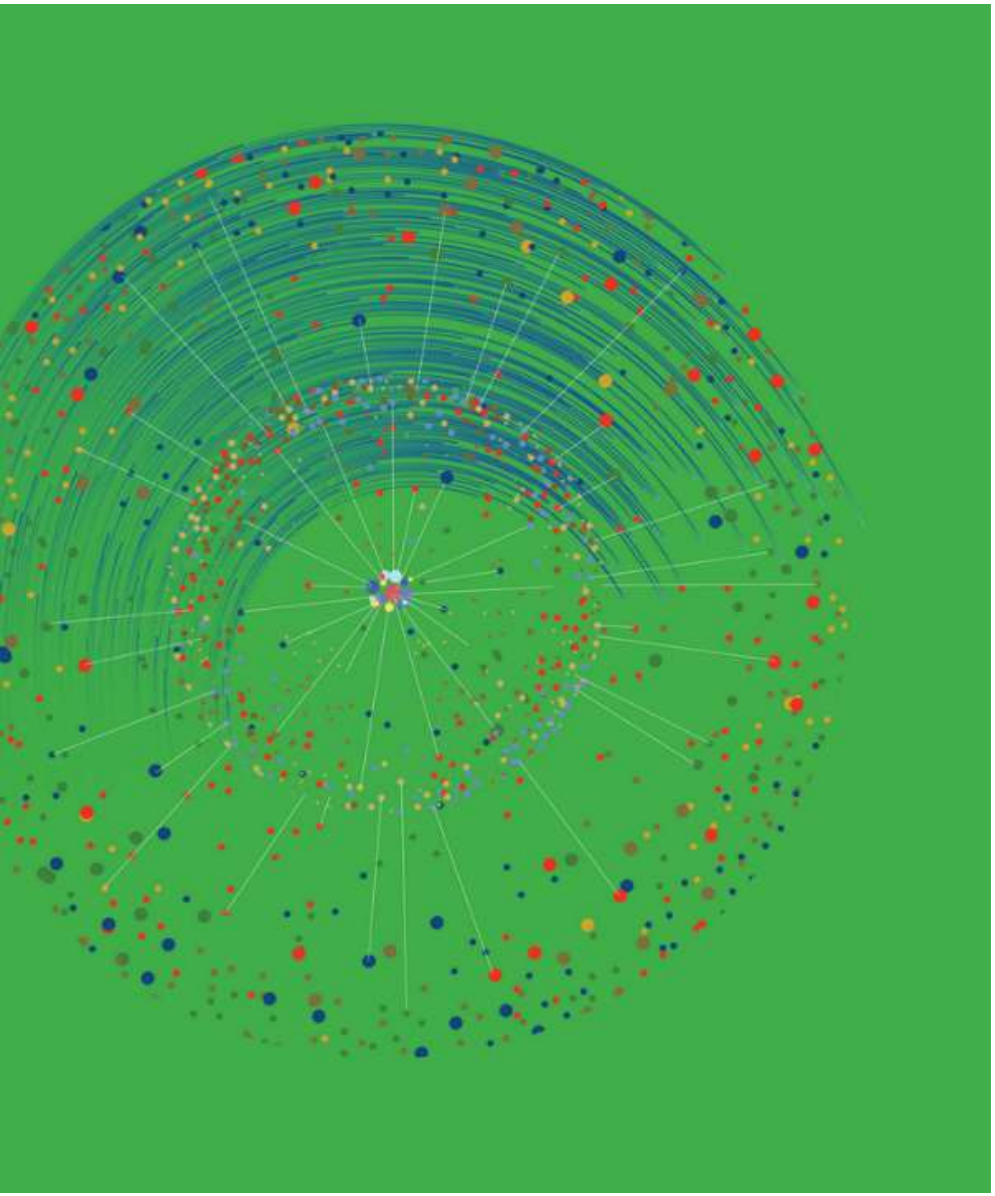




Group Exercise

Based on where your country is in operationalizing article 6 and on the expected next steps for your engagement in this context in the next year:

- What are the crucial aspects that you would like the workshop to cover?
- What are the aspects that you would appreciate special focus on/support with?
- Are there any themes that you have identified as important and that are not reflected in the programme as presented so far?



Reflections

Current NDC Details

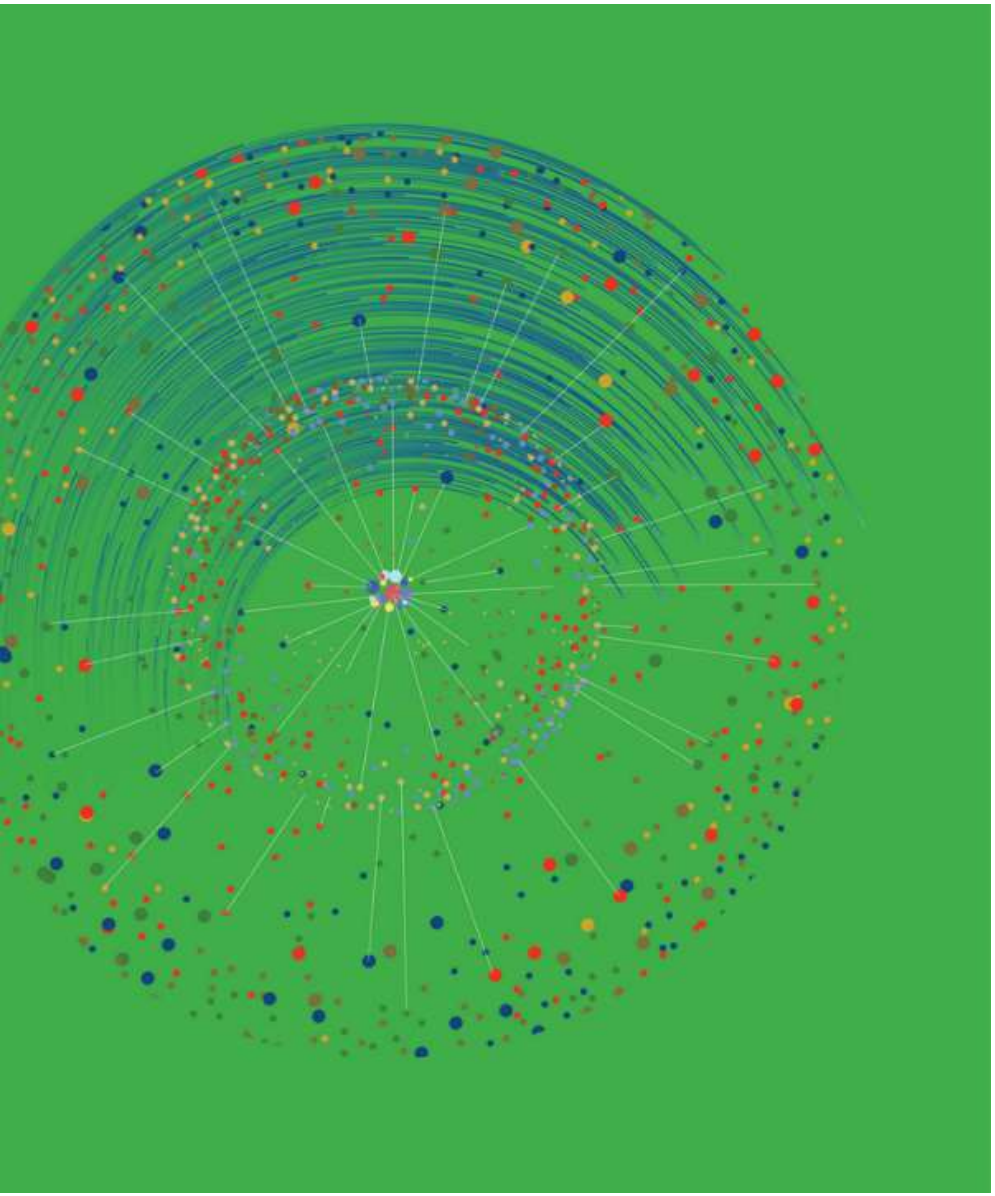
1. What does my current NDC include?
2. What are the unconditional commitments of my NDC (i.e., what will the country achieve on its own)?
3. What is included in the conditional part of my NDC? What kind of support will be utilized?
4. What aspects are outside the scope of my NDC? Does the country plan to mobilize these, and if so, how?

Future NDC Considerations

1. What could be included in my future NDC?
2. Is it possible to credit the results now and then later end the crediting period, counting the results towards my NDC?

Contributions to Long-Term Low Emission Development Strategies (LT-LEDS)

1. What could contribute to my LT-LEDS?



Dinner at 19:00

United Nations
Climate Change