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# CARBON MARKETS FOR LOW-CARBON DEVELOPMENT

A brief introduction

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**IETA**

# What is the hardest part about addressing climate change?

- channeling finance to the right causes



# WE ARE THE TRUSTED BUSINESS VOICE ON MARKET-BASED CLIMATE SOLUTIONS

- Non-profit industry association founded in 1999 with over 300+ business members representing the entire market landscape
- Empowering the private sector to engage in climate action, by supporting the establishment of effective market-based trading systems for greenhouse gas (GHG) emissions and removals that are environmentally robust, fair, open and efficient
- **Making net zero possible.**
- [www.ieta.org](http://www.ieta.org)



# IETA MEMBERSHIP



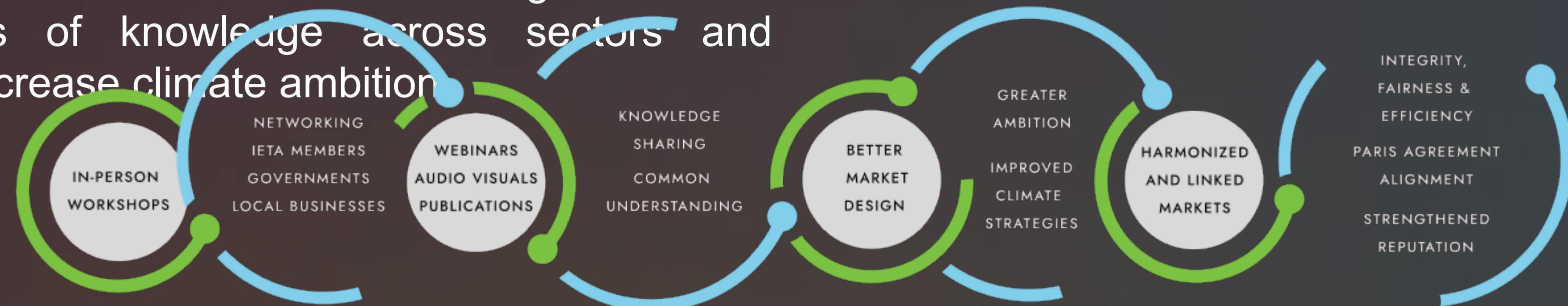
# The Business Partnership for Market Implementation (B-PMI)



- Support the World Bank's PMI in promoting the implementation of carbon pricing instruments, especially in emerging markets
- Advance private sector engagement in PMI jurisdictions and support the development of more efficient carbon market policies

## Impact:

- Better design and enhanced commonality of features of emerging carbon markets
- Understanding and knowledge sharing of market trends, economic impacts and policy developments
- Promote dialogues between businesses and governments to build bridges of knowledge across sectors and geographies to increase climate ambition



## B-PMI Steering Committee



## Focus areas of support 2024: Brazil, East Africa, Indonesia, Viet Nam



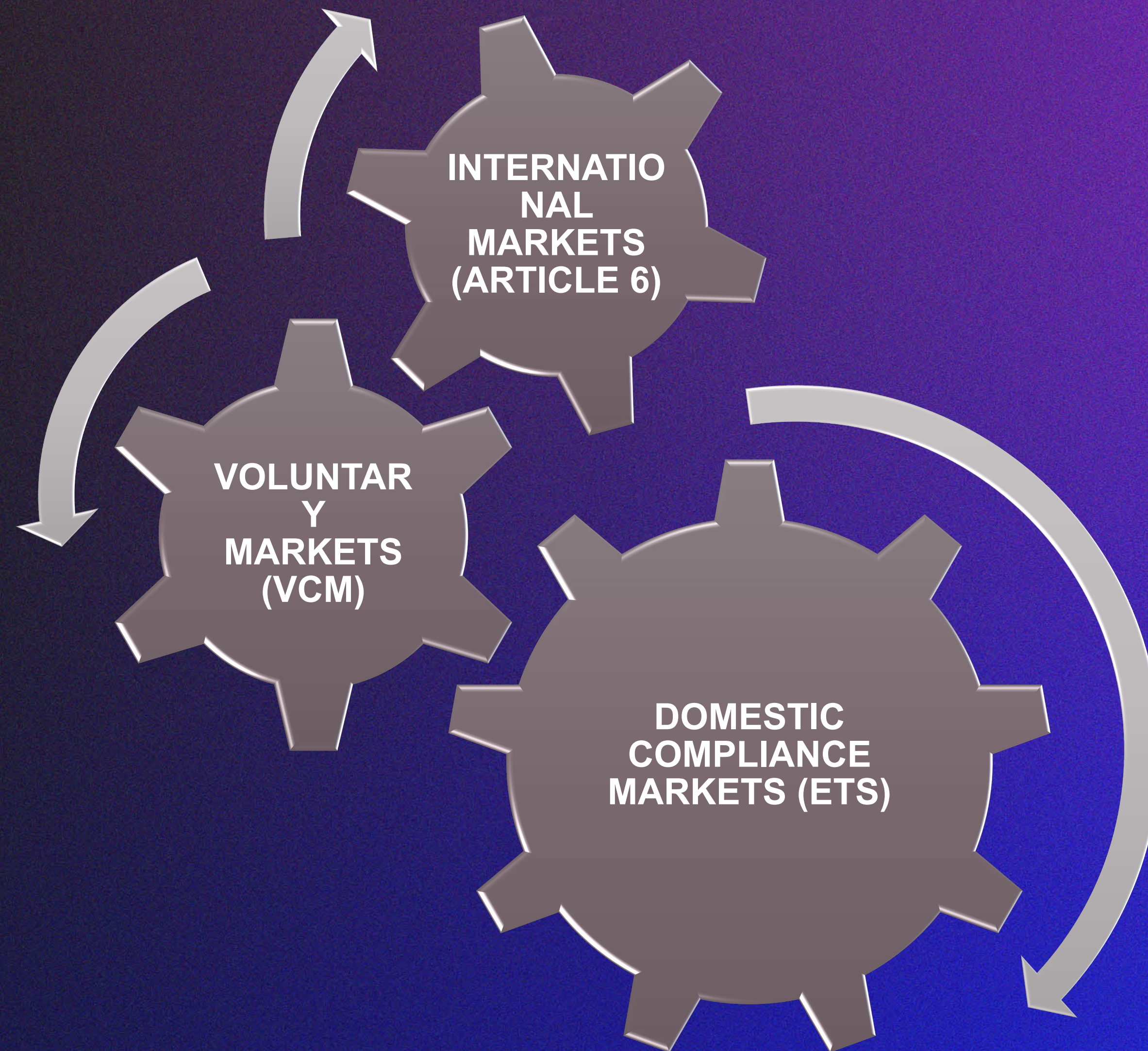
WHY?

# WELL-DESIGNED CARBON MARKETS CAN SUPPORT LOW-CARBON DEVELOPMENT AND THE ACHIEVEMENT OF PARIS AGREEMENT TARGETS

- By incentivizing emissions reductions (giving them a price/value)
- To deliver climate action where it is most effective
- Recognizing that it does not matter where those emissions reductions take place (allowing for trade)



THIS INCLUDES ETS, VCM AND ARTICLE 6



# DIFFERENT TYPES OF CARBON MARKETS

## COMPLIANCE ETS

Regulated by national/subnational governments, following the 'polluter pays principle'. Emitters covered by a fixed 'cap'. Emissions reduced below the cap can be traded (allowances).

### Examples:

EU ETS (since 2005),  
China ETS, Canada  
(provinces), Singapore  
carbon tax..?

## VOLUNTARY CARBON MARKETS

Governed by independent crediting programmes. More than 20 standards across the world. Verified emissions reductions or removals against a baseline generate tradable credits which can be used for offsetting purposes.

### Standards include:

Verra, Gold Standard,  
American Carbon  
Registry, puro.earth  
(and many more)

## INTERNATIONAL CARBON MARKETS

Governed by Article 6 of the Paris Agreement. Including cooperative approaches between countries (6.2) and a centralized crediting mechanism (6.4). Internationally Transferred Mitigation Outcomes (ITMOs) can be used to meet NDC targets. Transition from CDM under KP.

# 40+

Bilateral agreements under  
Article 6.2



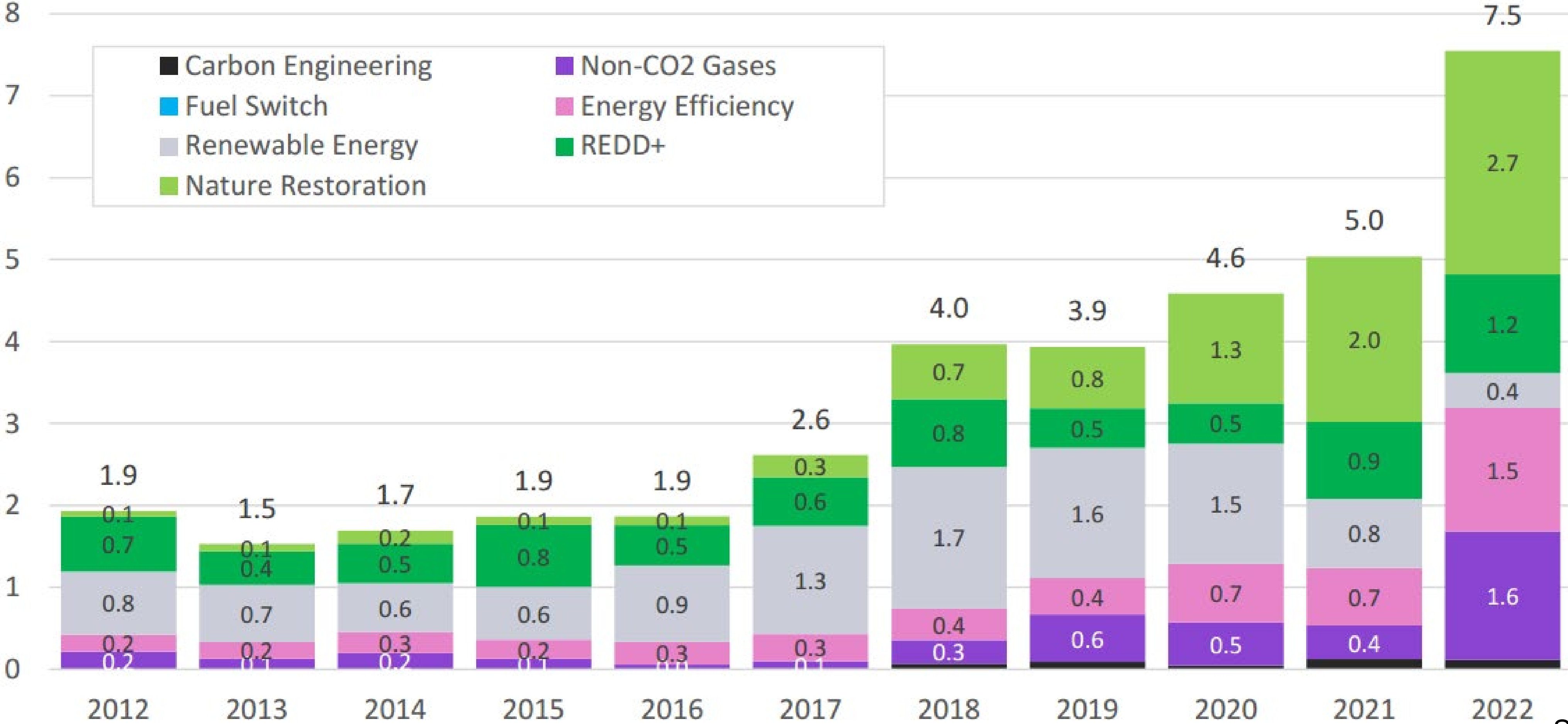
## **CARBON CREDIT MARKETS ARE STILL SMALL RELATIVE TO OTHER CARBON PRICING INSTRUMENTS**

- In 2022, ETSs reached over **USD 65 billion** in annual revenue and over 9 Gt CO<sub>2</sub>-eq in GHG emissions coverage,
- Carbon taxes amounted to **USD 29 billion** in annual revenue and almost 3 Gt CO<sub>2</sub>-eq in GHG emissions coverage;
- Compared to **USD 1.3 billion** and 0.17 Gt CO<sub>2</sub>-eq respectively in carbon credit markets.



However, it is growing rapidly...

Project investment by project type (\$bn)

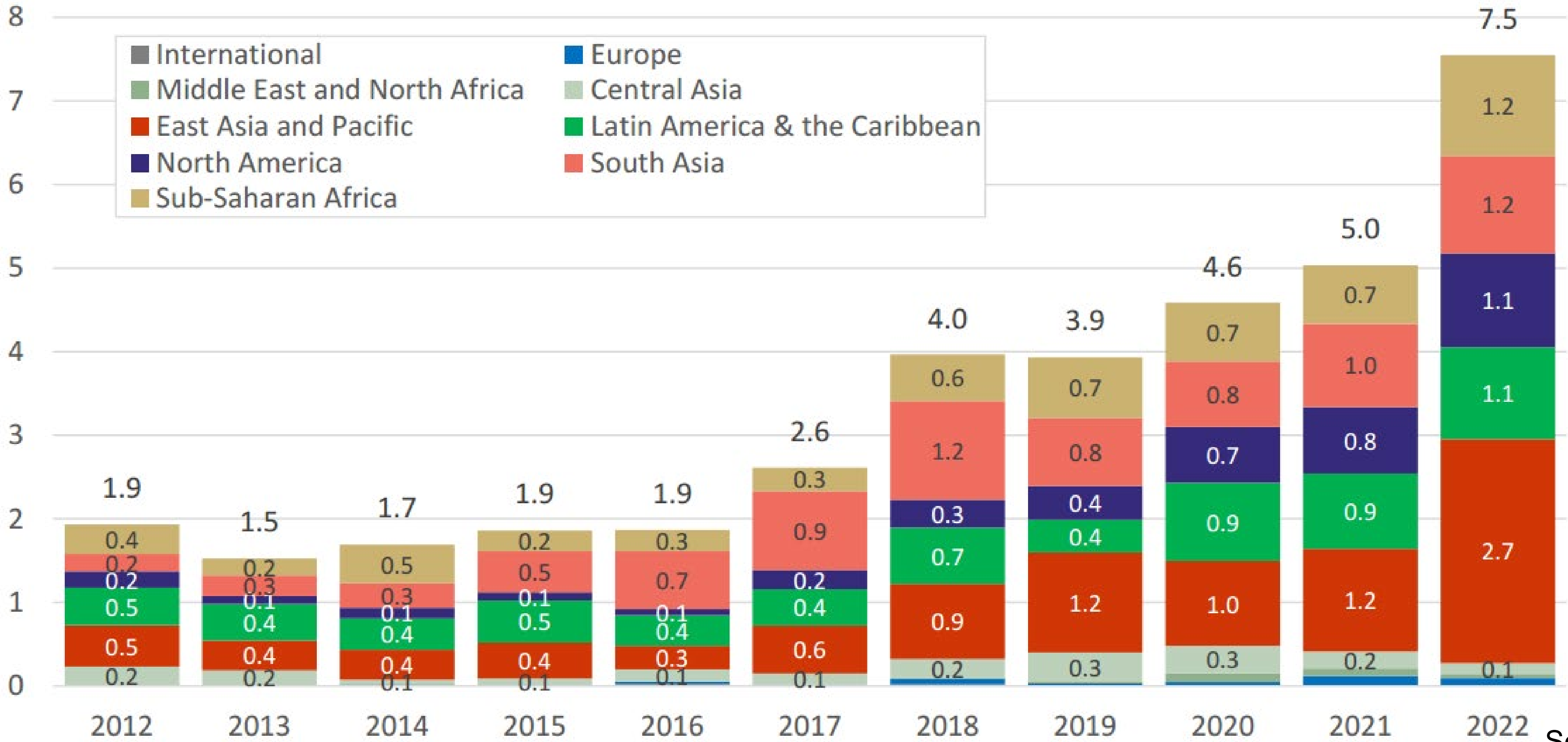


Source: Trove Research



Especially in this region...

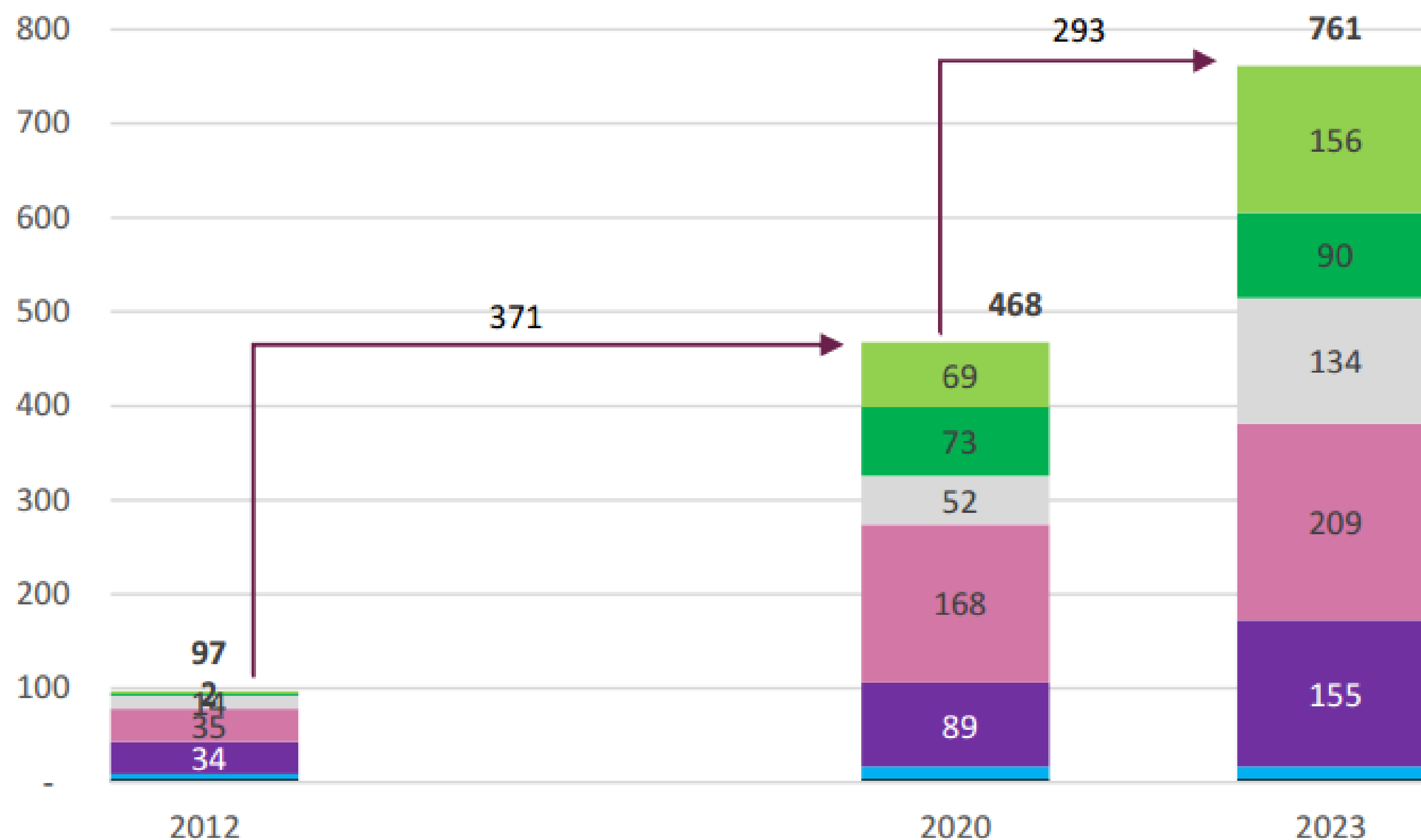
Project investment by region (\$bn)



Source: Trove Research



Expected annual carbon reductions from registered projects (MtCO<sub>2</sub>e/yr) <sup>(2)</sup>



Since 2020 **over 1,500 new carbon credit projects have been developed and registered** with the five main registries. This is equivalent to around **520 new projects a year**. The rate of new project registrations in the **last three years is 160%** of the rate from 2012 to 2020. The new projects added since the **start of 2020 claim to save an additional 300MtCO<sub>2</sub>e/yr of carbon emissions** – roughly the same as the annual carbon emissions of the UK.

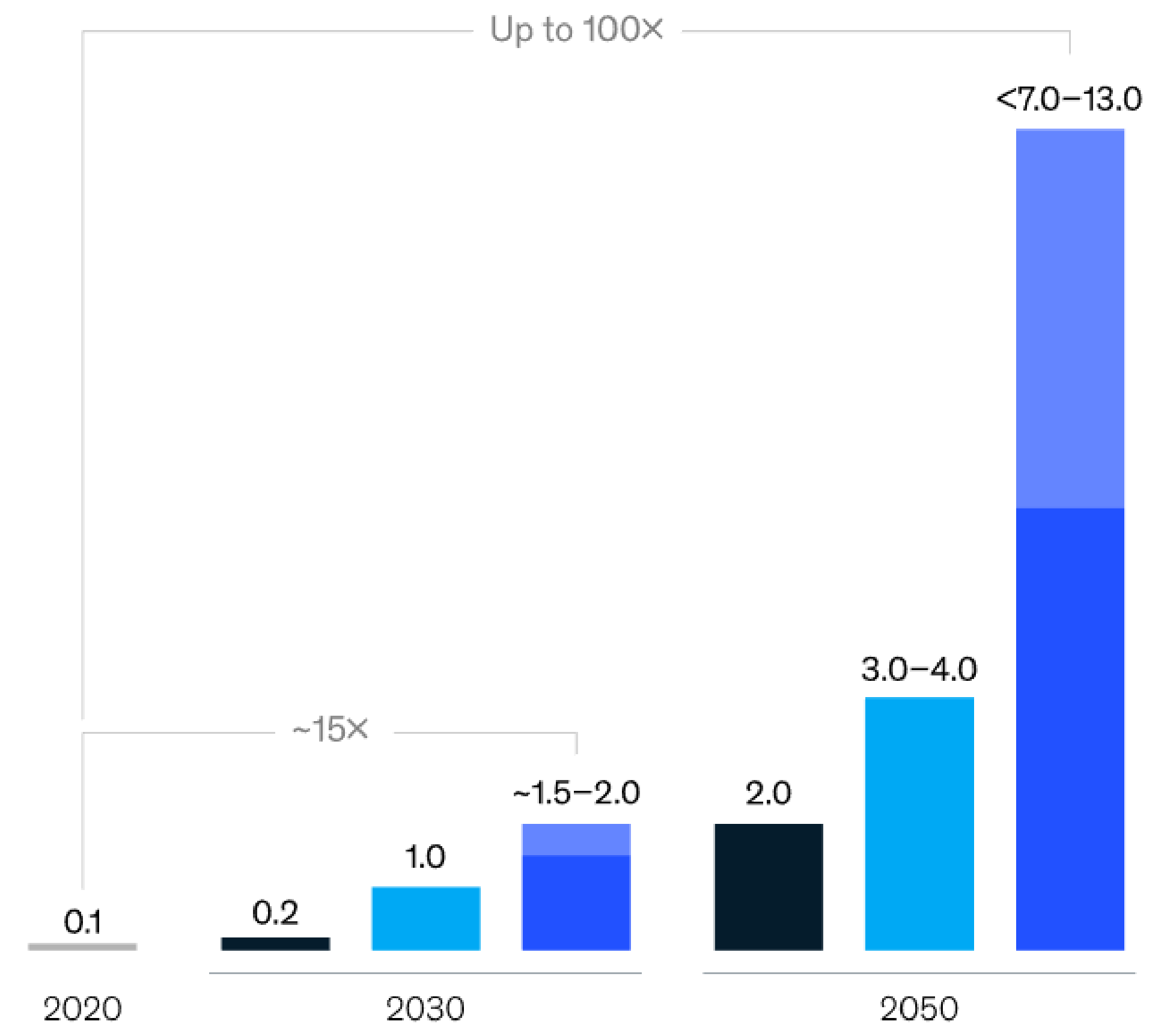
Source: Trove Research



## Whilst challenges have faced the market, it is developing rapidly

- Concerns over environmental integrity, social safeguards and greenwashing led to prices of carbon credits dropping in 2023, following substantial press coverage
- However, initiatives such as ICROA, ICVCM, VCMI and CAD Trust are fostering integrity and trust in the market
- End of 2023 led to a record number of credits retired in the VCM
- Voluntary commitments by international corporations remain strong
- Governments should consider how to leverage the potential of VCM to support sustainable development and raise climate ambition
- Increasing convergence with Article 6

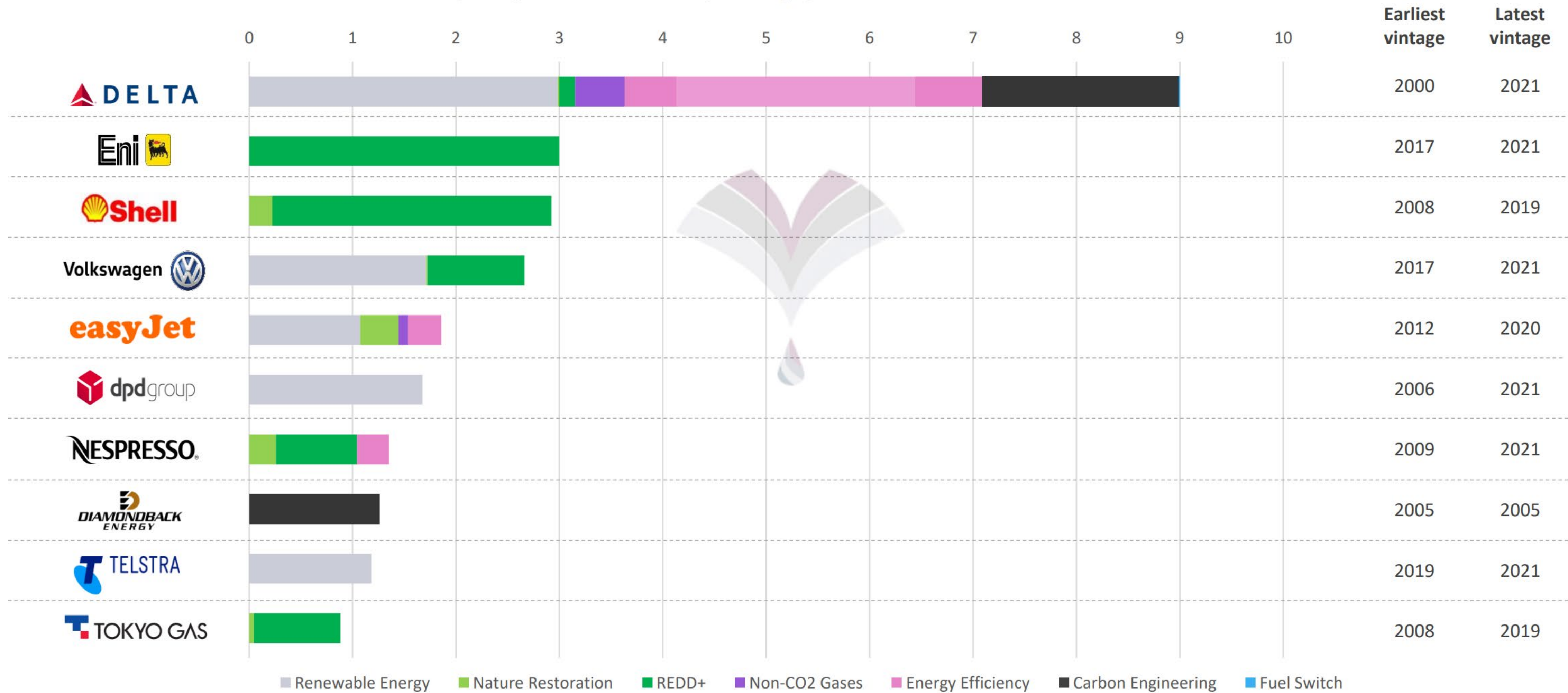
Voluntary demand scenarios for carbon credits, gigatons per year



Source: Trove Research



# WHERE IS THE DEMAND COMING FROM?



*Driven mainly by voluntary commitments to reduce greenhouse gas emissions - stakeholders*





# THE CORE CARBON PRINCIPLES

The CCPs are a set of interlinked principles to define a threshold standard to ensure integrity in the voluntary carbon market.

## EMISSIONS IMPACT

1. Additionality
2. Permanence
3. Robust quantification of emission reductions and removals
4. No double counting

## GOVERNANCE

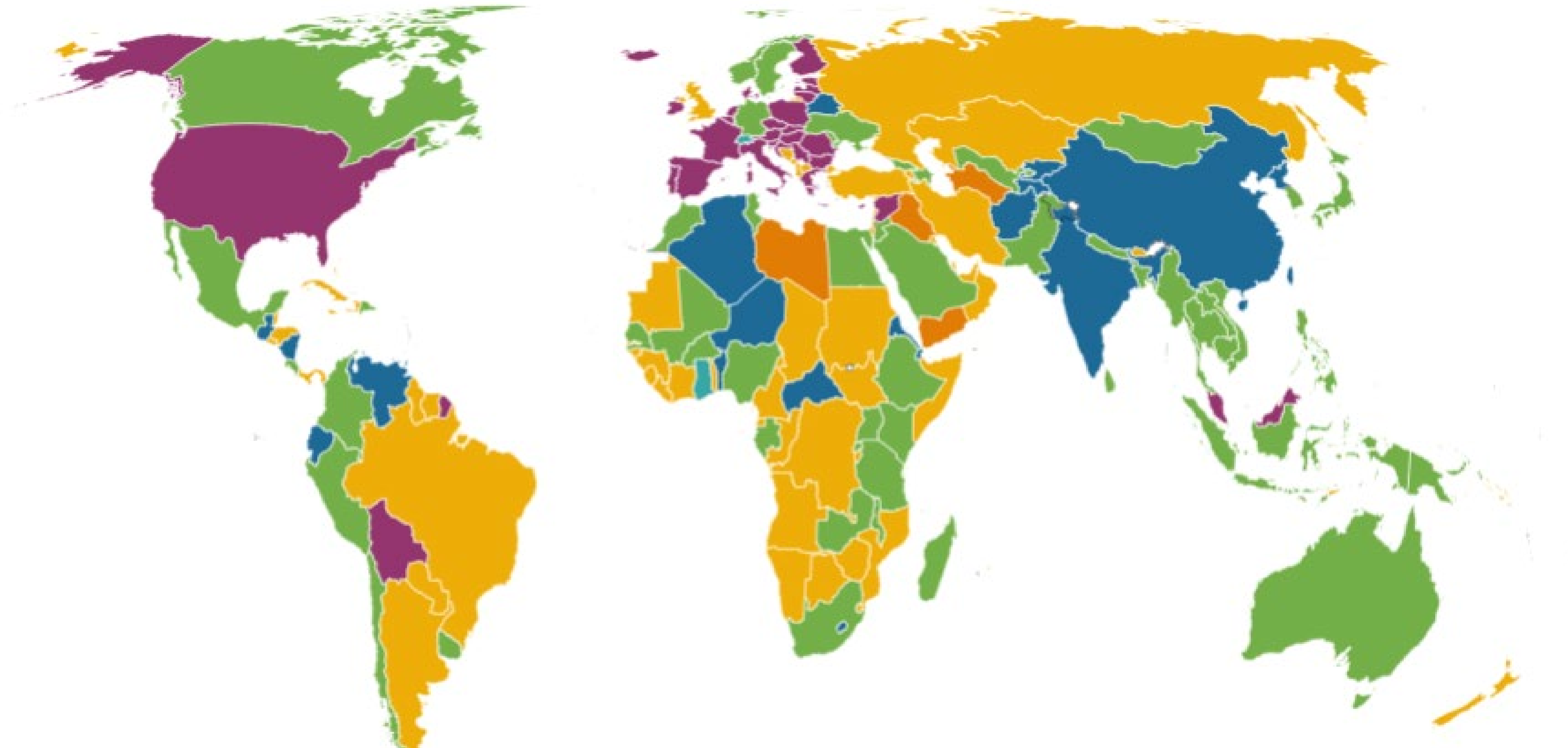
5. Effective governance
6. Tracking
7. Transparency
8. Robust independent third-party validation and verification

## SUSTAINABLE DEVELOPMENT

9. Sustainable development benefits and safeguards
10. Contribution to net zero transition

**80%** of countries signalled their intention to use international market mechanisms or broad international support to meet their NDCs or increase ambition

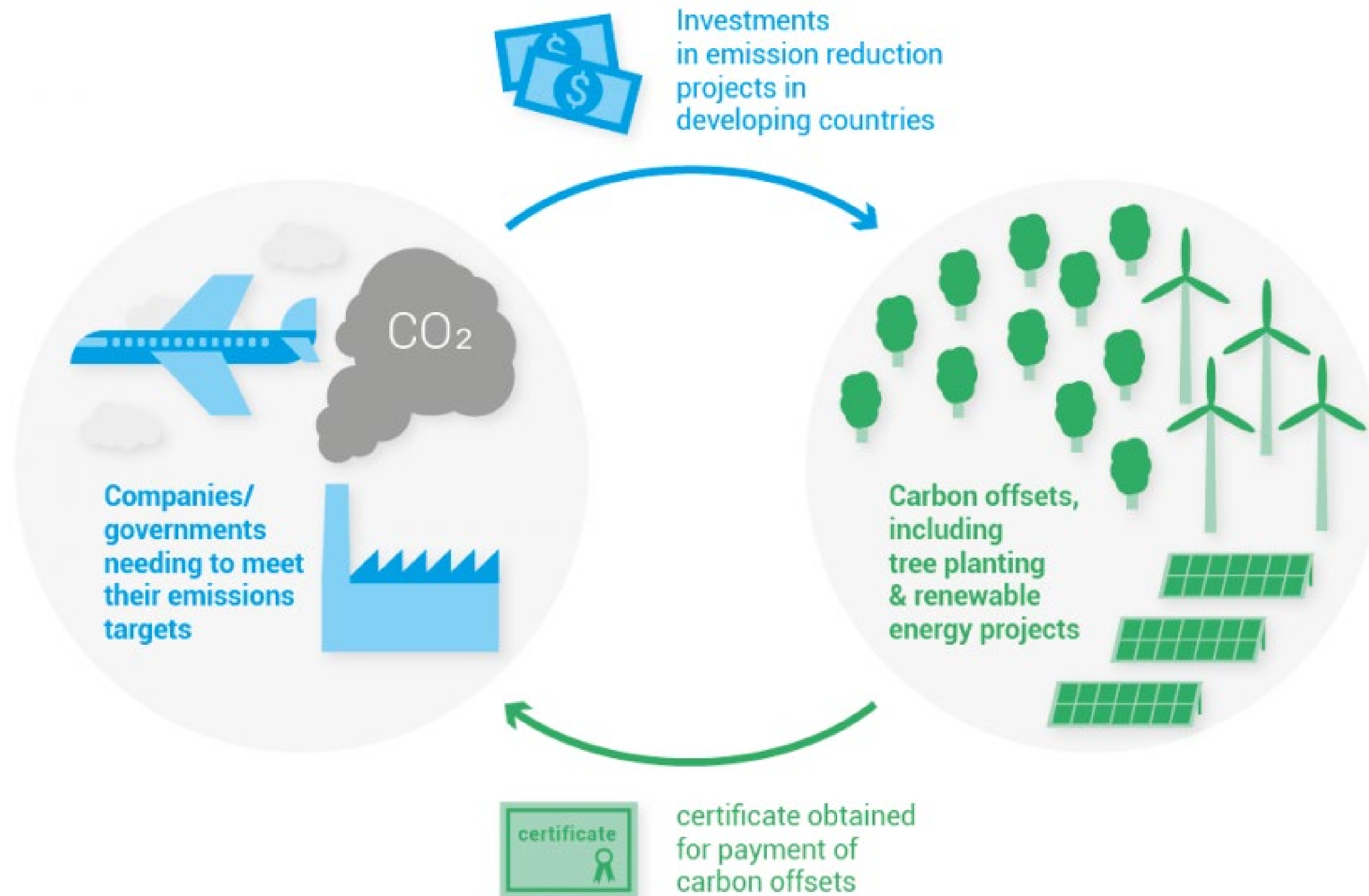
**Over 20%** of countries actively engaged in at least one cooperative approach through bilateral agreements, MOUs or participation in pilot projects.



- Considers broad international support for achieving its NDC or increasing its climate ambition
- Considers or intends to use international market mechanisms to achieve its NDC or increase its climate ambition
- Already engaged with some sort of cooperation to implement cooperative approaches (MOUs, pilot projects, etc.)
- Does not mention or consider using international carbon market mechanisms
- Already Authorizing and Transacting ITMOs
- Has not delivered the NDC or without information

Updated: May 2023



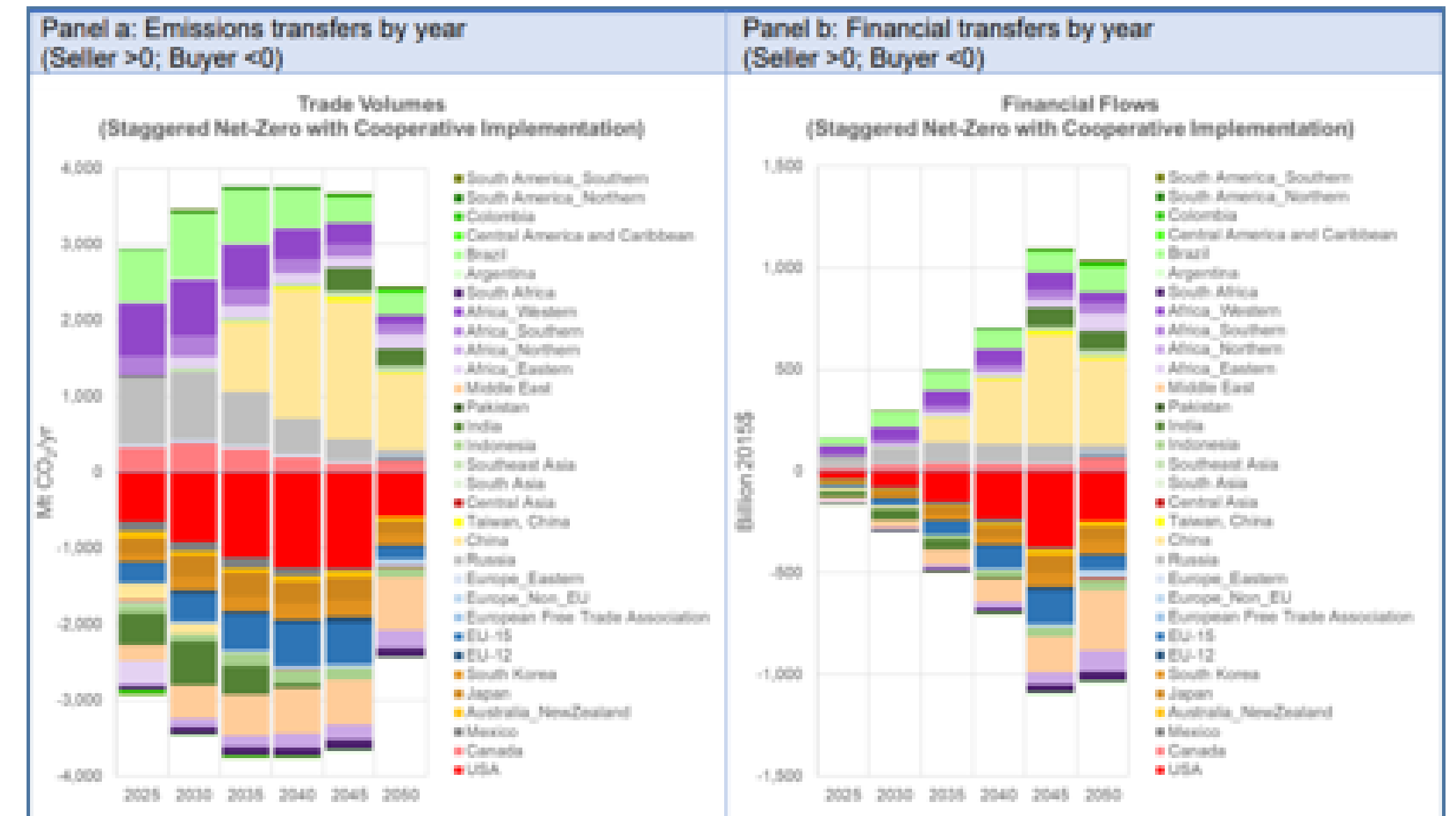


# GOVERNMENTS WISH TO UTILIZE ARTICLE 6 BECAUSE IT IS COST-EFFECTIVE

**\$250 billion a year in savings by 2030** when implementing NDC using Article 6 vs. independent implementation.

**Reduction of 5Gt CO<sub>2</sub>eq. per year by 2030** if savings are invested in additional mitigation activities.

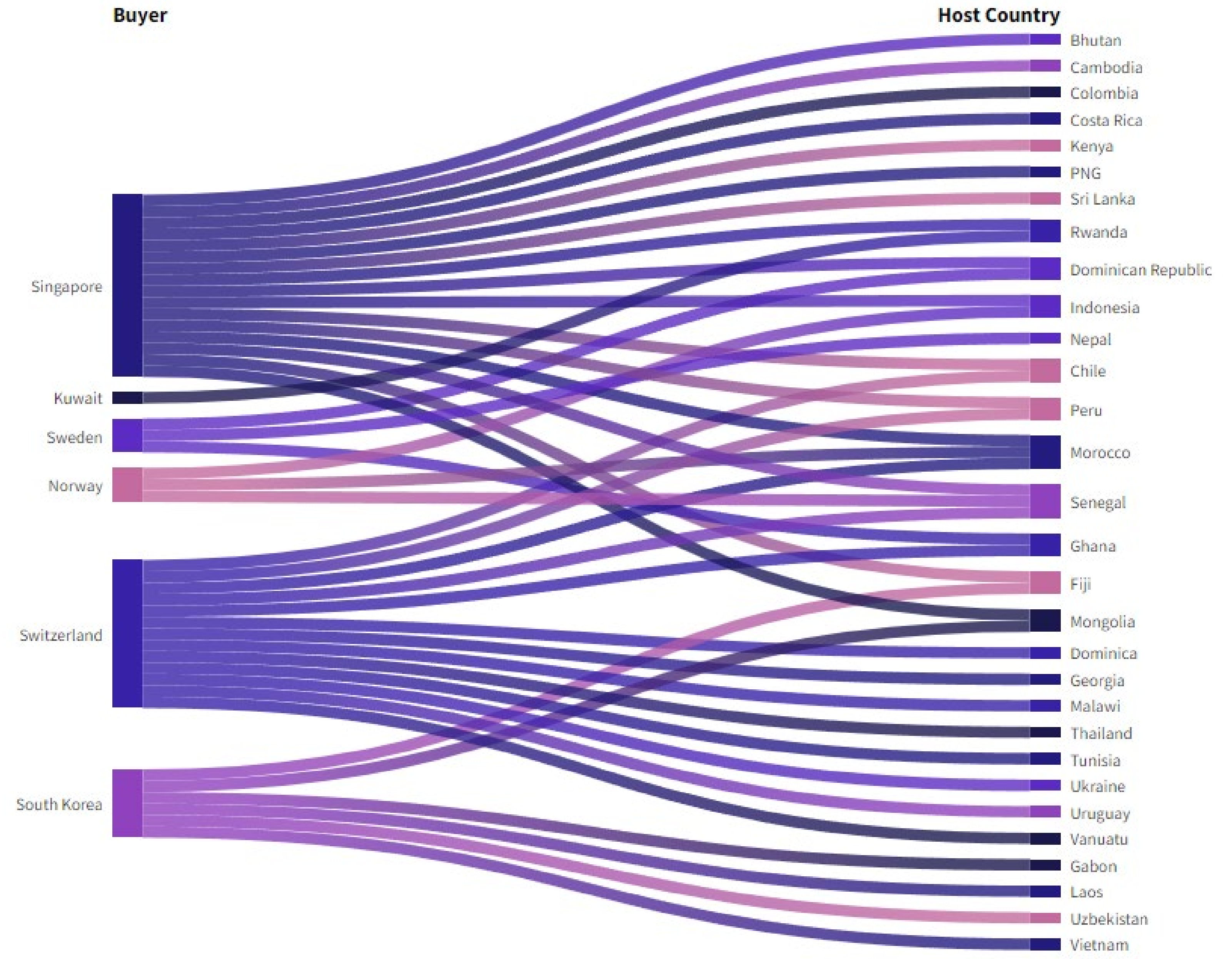
**Up to \$1 trillion a year by 2050** in international financial flows towards emission reduction and removal activities.



Whilst negotiations around Article 6 broke down at COP28, governments are already moving ahead with implementation under Article 6.2, using independent crediting standards

More than 40+ bilateral agreements/MoUs have already been signed

The 6.4 mechanism likely to come online in H2 2025



# 1st authorized programme in Asia under Art 6 framework



- ▶ Thailand-Switzerland cooperation framework
- ▶ The mitigation outcomes units from this program are inside Thailand's NDC and **surplus to its unconditional NDC**
- ▶ By **purchasing the resulting emission reductions**, the KliK Foundation provides the **necessary financial contribution** to make the programme financially viable.
- ▶ **Purchase Agreement** between KliK Foundation and Thai company Energy Absolute signed in June 2022
- ▶ Term : Oct 2022 - Dec 2030
- ▶ **ITMO volume: min. 500'000 tCo2e**
- ▶ **Number of buses:** minimum 1900 e-buses on 122 (existing and new) privately operated bus routes
- ▶ Further information:  
<https://www.international.klik.ch/news/publications/bangkok-e-bus--337>



Bangkok's first 40 electric public buses begin service today, said Transport Minister Saksayam Chidchob, adding that it marks an important shift away from polluting diesel engines.

# Klik

*What should be covered by compliance ETS?*  
*What projects can move forward in the VCM?*  
*What types of mitigation activities do we want to authorise under Article 6?*

- Consider the marginal abatement cost of various actions (MAC)
- Consider all sources of international finance
- Consider impacts on investments, private sector competitiveness, different groups in society, Indigenous Peoples, sustainable development
- Develop clear NDC strategy and authorization framework
- Ensure coordination among relevant ministries and agencies



## Marginal Abatement Costs vary significantly across types of projects

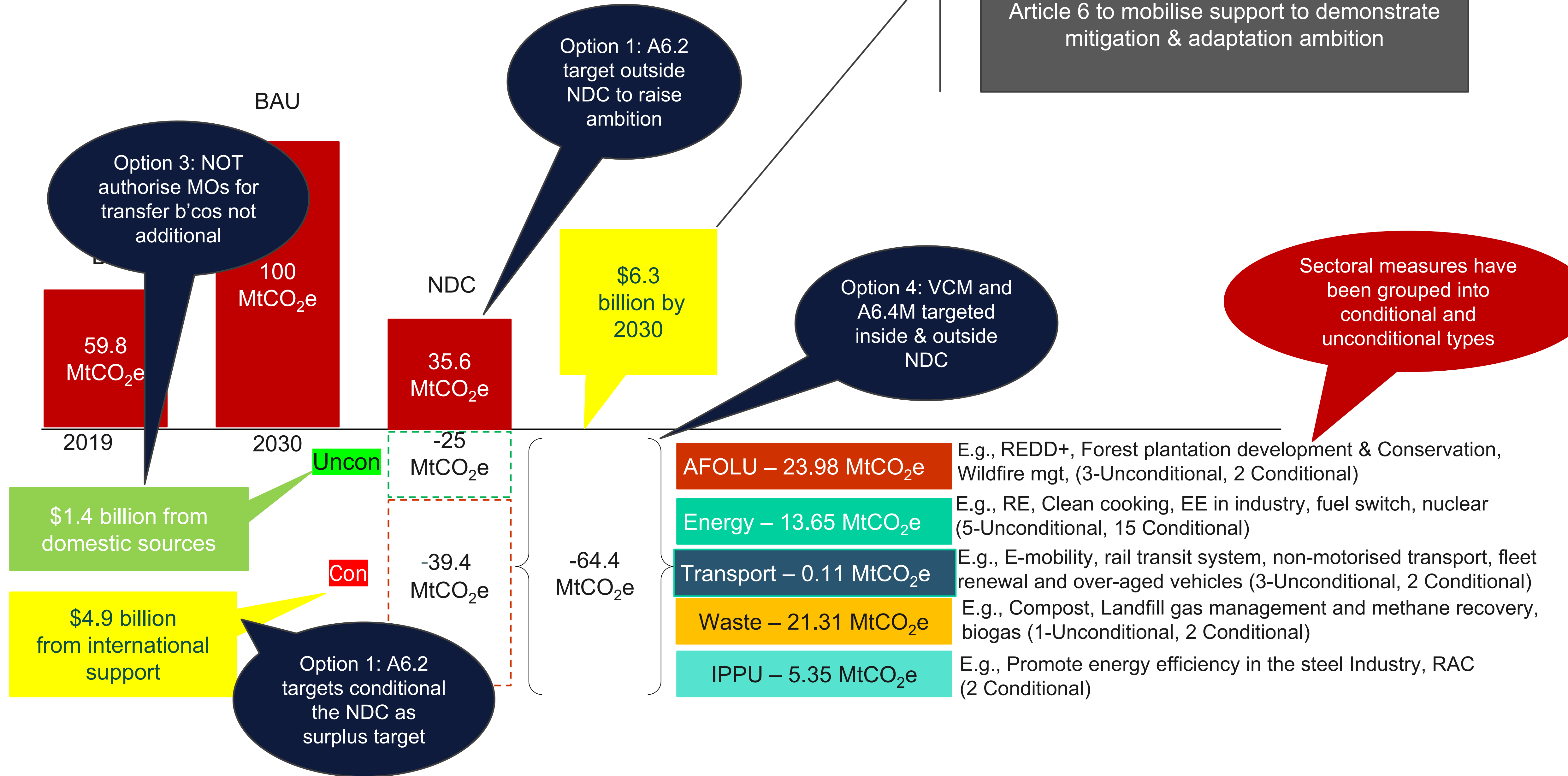
Project type	Project subtype	Total costs (\$/tCO <sub>2</sub> e)
Carbon Engineering	Carbon Capture and Storage	50 to 130
	Biochar	10 to 60
Energy Efficiency	Clean Cooking	3 to 15
Nature Restoration	Afforestation/reforestation/revegetation	5 to 30
	Agricultural Land Management	10 to 70
	Avoided Conversion of Grasslands and Shrublands	4 to 40
	Mangroves	10 to 45
	Peatlands	5 to 25
	Seagrass Meadows	100 to 500
	Improved Forest Management	5 to 20
Non-CO2 Gases	Landfill Gas	1 to 20
	Waste Management	0 to 15
	Fugitive Emissions	0 to 20
REDD+	Various	10 to 20
Renewable Energy	Various	1 to 20

Source: Trove Research



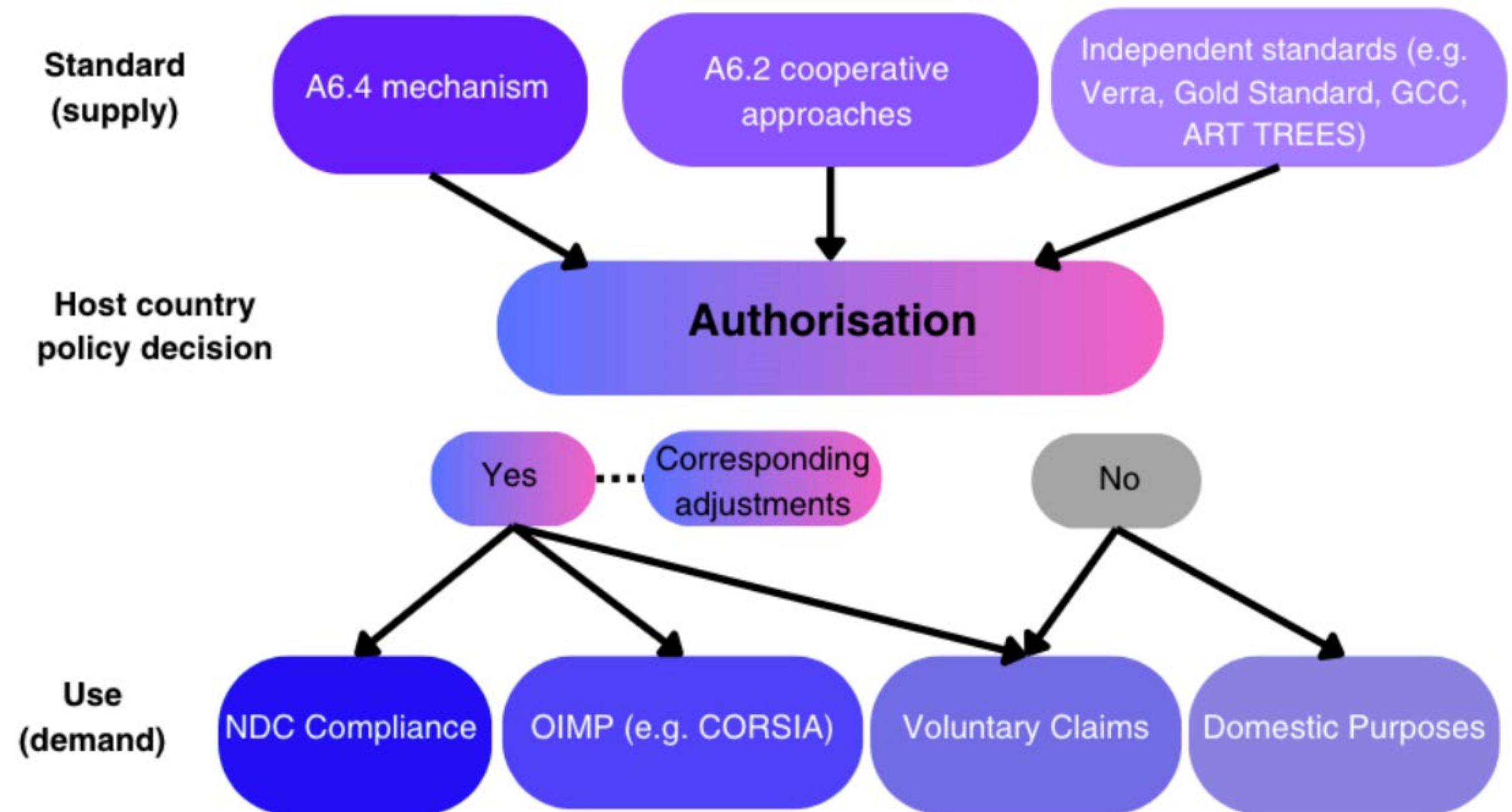
# Ghana NDCs and role of crediting schemes

In the FTCU Table Q.5g – Ghana intend to use Article 6 to mobilise support to demonstrate mitigation & adaptation ambition



# How Governments Can Implement NDCs Cooperatively and Encourage Private Sector Investment

- IETA paper published in November, 2023
- Outlines the “Ingredients for Success”, including a policy checklist for countries wishing to engage with international carbon markets
- Available here: [IETA Article 6 Discussion Paper](#)



## In conclusion...

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- We are falling dangerously short of our climate targets
- Carbon markets can be an effective tool to channel finance where its most impactful
- The private sector plays a key role in driving action towards our common climate targets
- Governments must develop holistic regulatory frameworks for carbon markets that includes compliance ETS, VCM & Article 6
- Such frameworks should provide clarity and stability for participants without overly restricting the market
- This will bring the maximum benefits for all stakeholders involved – and contribute to low carbon development



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# THANK YOU!

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