Carbon credits in Singapore's carbon tax system

ICAP Asia Pacific Training on Emissions Trading Systems

Gan Rui Yun
Senior Manager (Global Partnerships)
National Climate Change Secretariat
Singapore

NCCS
NATIONAL CLIMATE CHANGE SECRETARIAT
SINGAPORE

STRATEGY GROUP
PRIME MINISTER'S
OFFICE

Despite being limited by our national circumstances

Dense Urban Landscape

- High population density of 7,800 per sq km
- Low-lying, highly urbanised island-state
- Accommodate housing, commercial centres, air/sea ports, etc.

Limited Alternative Energy Options

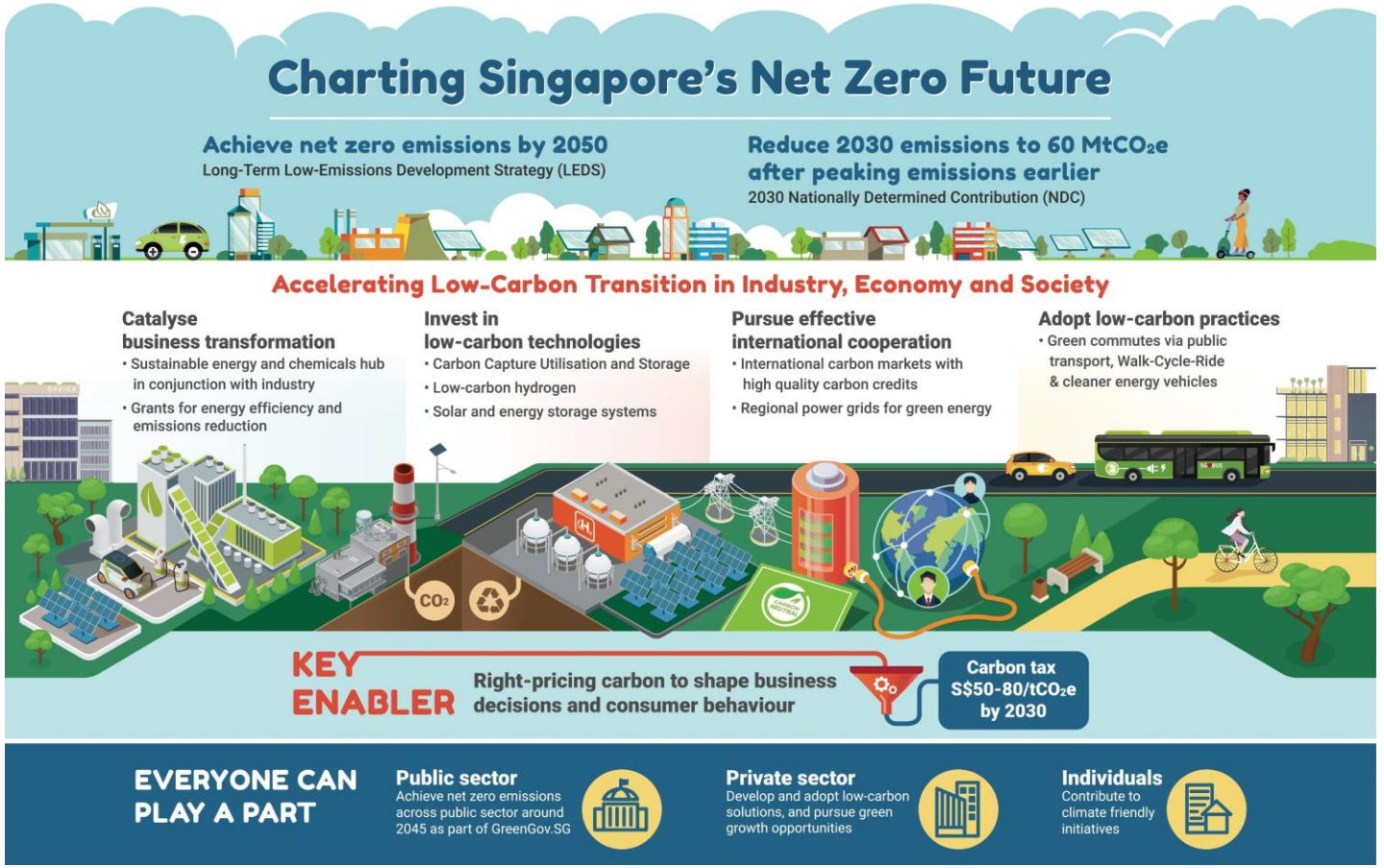
- Geography not suitable for hydro, wind and geothermal
- Solar energy limited by intermittency and land constraints
- 95% electricity generated from natural gas (switching from fuel oil since early 2000s)

Export-oriented and Open Economy

- Lack of natural resources and hinterland

Singapore is a committed early mover in global climate action

Among the **first few countries to enhance 2030 Nationally Determined Contribution (NDC)** and **submit a Long-Term Low-Emissions Development Strategy (LEDS)** in March 2020



In November 2022, Singapore updated 2030 NDC and LEDS, to **reduce 2030 emissions to 60MtCO$_2$e after peaking earlier** and **achieve net-zero by 2050**

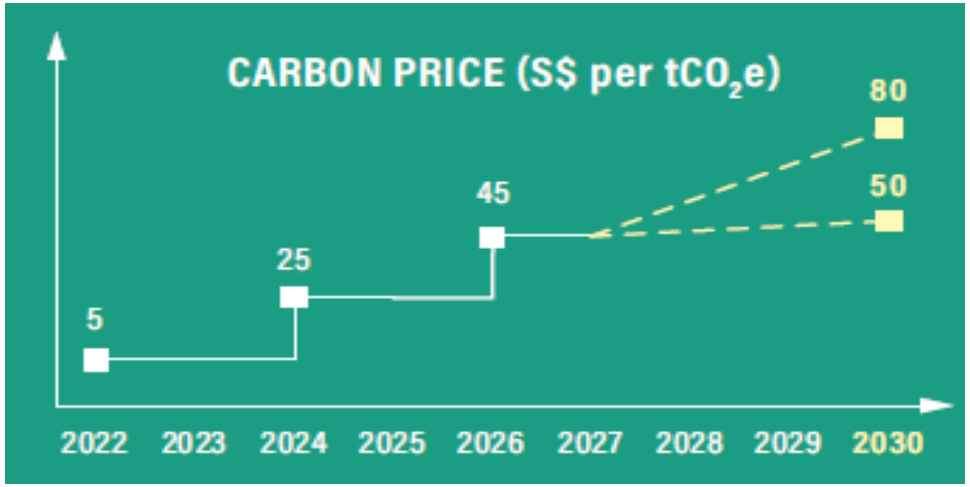
To achieve our raised climate ambition, we are raising our carbon tax levels and trajectory

Catalyse business transformations

Interest in low-carbon technologies

Pursue effective international cooperation

Adopt low carbon practices



- The carbon tax will be raised to put in place the appropriate price signal to enable **transformations in our industry, economy and society**
  - S$25/t (US$17.50/t) in 2024 and 2025
  - S$45/t (US$31.50/t) in 2026 and 2027
  - S$50-80/t (US$35-56/t) by 2030

- The carbon tax revenue will be used to support our decarbonisation efforts

However, this is not enough because of our national circumstance and the need for collective global climate action

Catalyse business transformations

Interest in low-carbon technologies

Pursue effective international cooperation

Adopt low carbon practices

- Due to Singapore's national circumstance, we need to leverage **low-carbon technological advancement** and **effective international collaboration** (e.g. renewable energy and carbon trading, technological cooperation) to achieve our climate ambition

- Commitments and outcomes at COP-26 show that advancement and collaboration is possible
  - Singapore has also contributed resources to help materialise these outcomes (e.g. Singapore co-facilitated ministerial-level consultation for Article 6 of Paris Agreement)

- **Singapore is hence exploring carbon trading and Article 6 cooperation with likeminded countries to enhance the global climate ambition**

Scaling up Article 6-compliant high integrity carbon markets

Implementation Agreement to set out G2G Article 6 framework

To enable the implementation of Article 6 projects, we will put in place an overarching G2G framework

Legally binding Implementation Agreement (IA)

- Overarching G2G framework for Article 6 carbon credit cooperation
- Includes (i) roles and responsibilities of relevant government agencies; (ii) rules and processes for issuance of ITMOs corresponding adjustment, and (iii) guidelines for environmental integrity criteria and project types

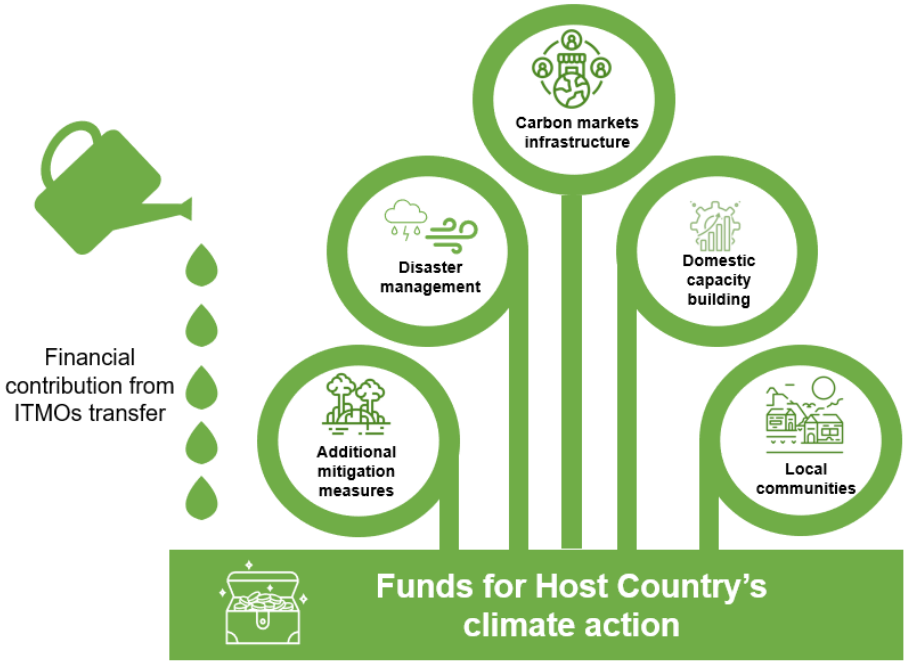
Legally binding project contracts under the IA framework

- Specific to project, and include detailed commercial terms of transactions
- Terms and conditions within the IA shall apply
- Can be signed between non-government entities

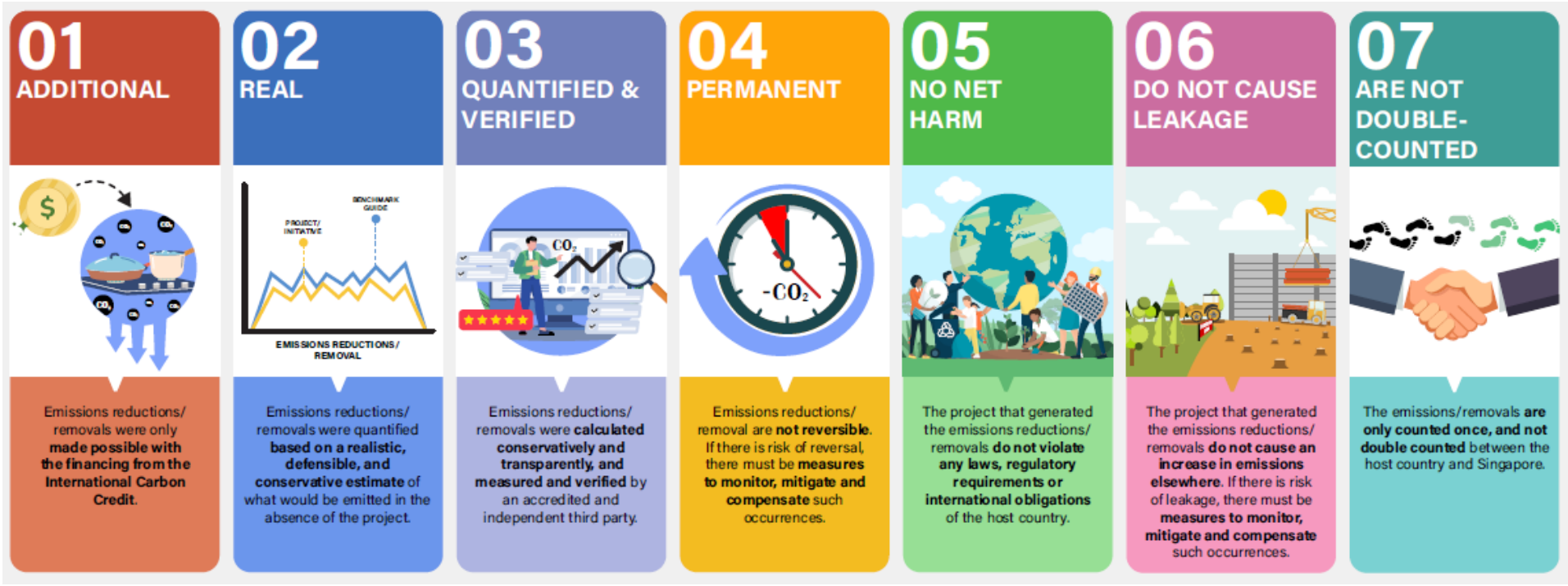
The IA will (i) build confidence for companies; and (ii) provide assurance to both the host country and user country

Singapore's approach towards Article 6.2 cooperation with host countries – high-integrity and mutually beneficial

- High environmental integrity so that units transacted will be seen as credible
- Delivering mitigation in global emissions through cancelling emission reduction credits (2% OMGE)
- Involvement of local stakeholders and support local adaptation (5% Share of Proceeds)
- Leverage existing standards (e.g. Gold Standard, Verra) where possible
- Bring onboard expertise in finance, technology and capacity building



Article 6 cooperation need to be guided by high environmental integrity principles



- This will determine eligible carbon credits for use towards carbon tax, by using ICAO CORSIA standards as minimum basis and aligning with Article 6.2 Guidance
- Open to all project types, as long as environmental integrity is safeguarded
- National Environment Agency is the designated national authority to ensure carbon credits can meet our environmental integrity criteria

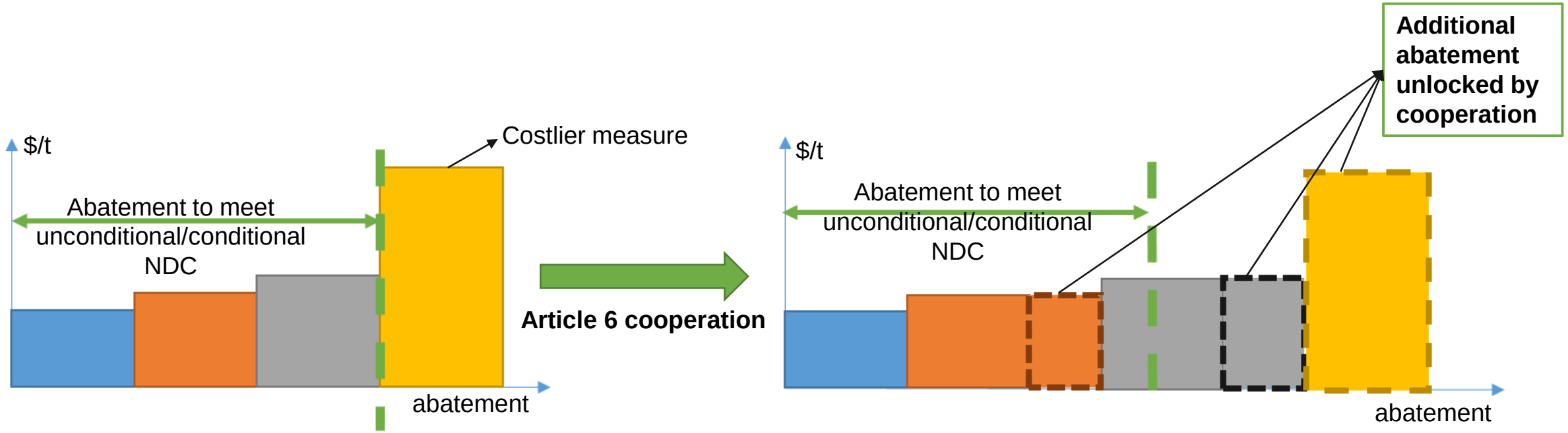
Additional environmental integrity safeguards

- Based on Eligibility Criteria above, a white-list of eligible offset programmes and methodologies will be developed

- Additional safeguards will also be put in place for project types that have higher risk of non-additionality, carbon leakage and non-permanence

Additional environmental safeguards (still under consultation)	
Additionality test for renewable energy carbon credit projects	Only carbon credits from the following renewable energy projects will be allowed: 1. Projects that use offshore wind technology, or waste-to-energy technology 2. Projects that are linked with energy storage systems 3. Projects outside of (1) and (2), but come from (i) Least Developed Countries (LDC), (ii) micro-grids that are not linked to national grids, or (iii) lower middle income countries with less than 5% of the said renewable technology deployed in national grid at the point of registration or renewal *Renewable energy projects refer to projects that (i) generate and deliver energy services (e.g. mechanical, work, electricity, heat) from non-fossil fuel and renewable energy sources, or (ii) comprise of renewable energy generation units (e.g. solar PV, tidal/wave, wind, hydro, geothermal, waste-to-energy, renewable biomass) that are supplying energy or electricity. ** Definition of LDC is based on United Nations' definition; Definition of lower middle income countries is based on World Bank's definition
Nested or jurisdictional baseline for forest conservation carbon credits	• Must have nested baseline or be part of a jurisdictional programme to address concerns over leakage and non-additionality due to policy* **Nested baseline" refers to an approach to account the emission baselines of standalone forestry credit projects within the forest emissions reference level for the broader area (e.g. jurisdiction), such that the credits do indeed represent a net reduction in GHG emissions in that jurisdiction.* • For such credits from high-forest low-deforestation (HFLD) jurisdictions, baselines should incorporate HFLD-related incentive factor arbitrarily
Additional requirements to comply with Article 6.2 guidance	
Represent post-2020 emission reductions	Pre-2020 units seen as diluting ambition under the Paris Agreement
Corresponding adjustment	• Avoiding double counting through robust registry systems and corresponding adjustments** • Letter of Authorisation from host countries required **Corresponding adjustment is the transfer of underlying emissions reductions across countries' greenhouse gas (GHG) inventory. For example, when Country X receives 1MtCO_2e of carbon credits from Country Y, Country Y has to add 1MtCO_2e to its GHG inventory while Country X will reduce 1MtCO_2e in its GHG inventory.
Within the same NDC period	Credits generated within the 2030 NDC timeframe (2021-2030) for use within 2030 timeframe

Unlock host country's mitigation potential to achieve current climate commitments and advance future climate ambitions

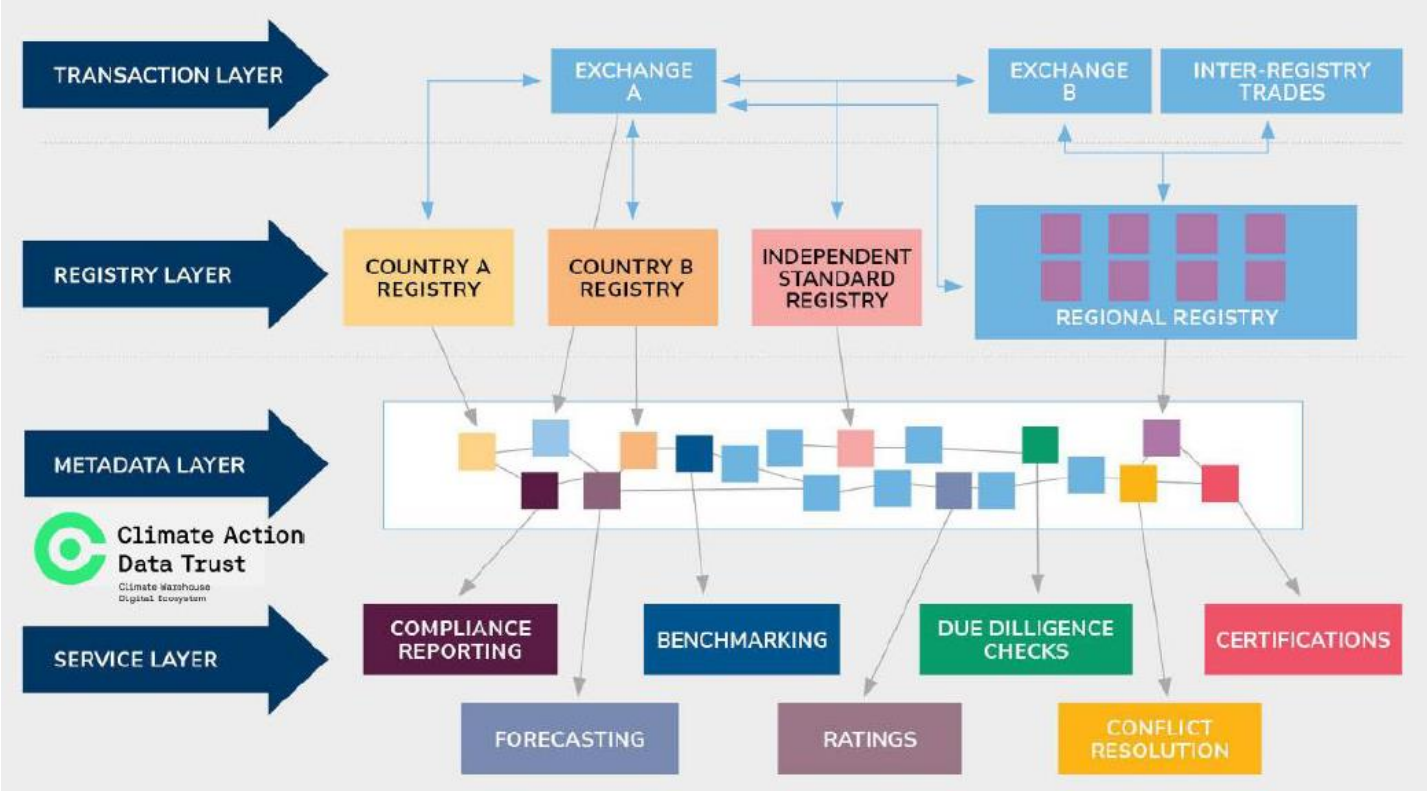


Abatement after the end of the authorised crediting period will be accrued to host country's future NDCs

To build confidence in high-quality carbon markets, we need to enhance the transparency and mitigate risks of double counting

Climate Action Data Trust

- Supporting the operationalisation of the World Bank-initiated Climate Action Data Trust as an independent global market infrastructure
  - It aims to enhance transparency and reduce the risk of double-counting by connecting registries to form a metadata layer
  - It also seeks to facilitate Article 6 transactions in the future



Thank you