ESCAP
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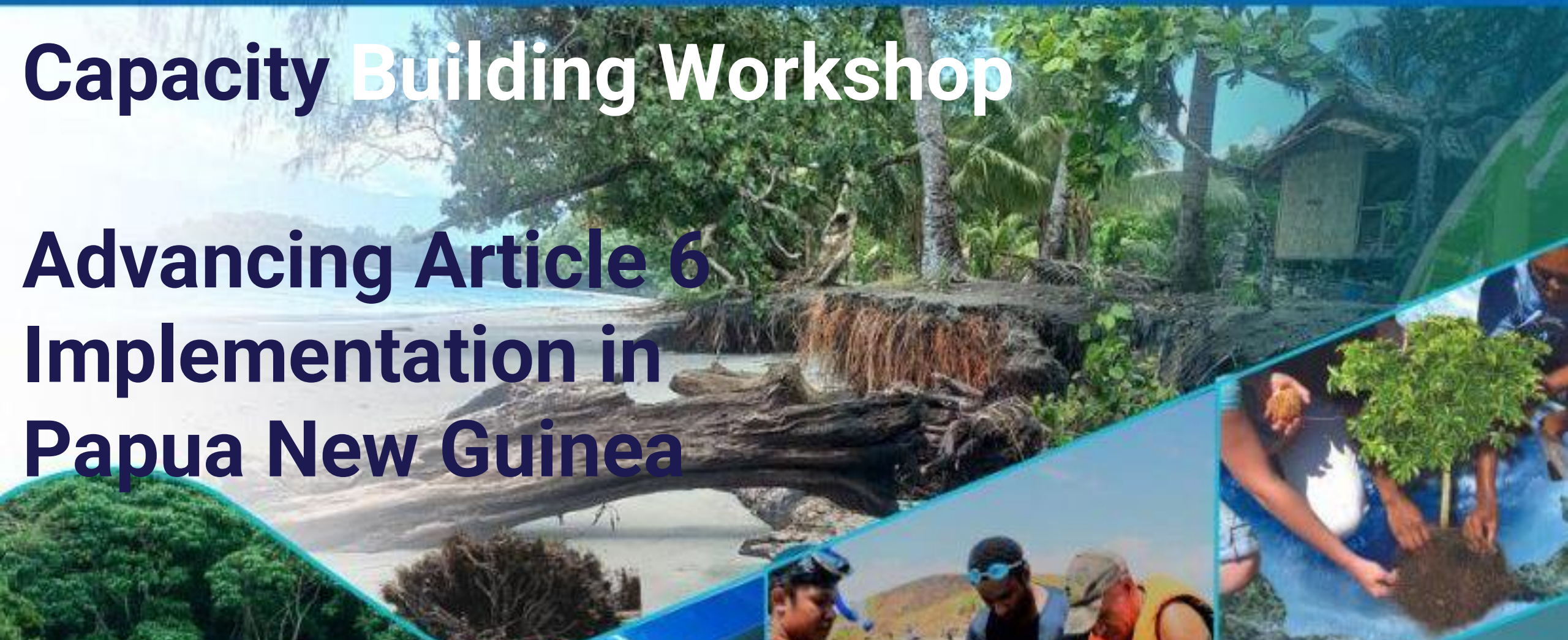
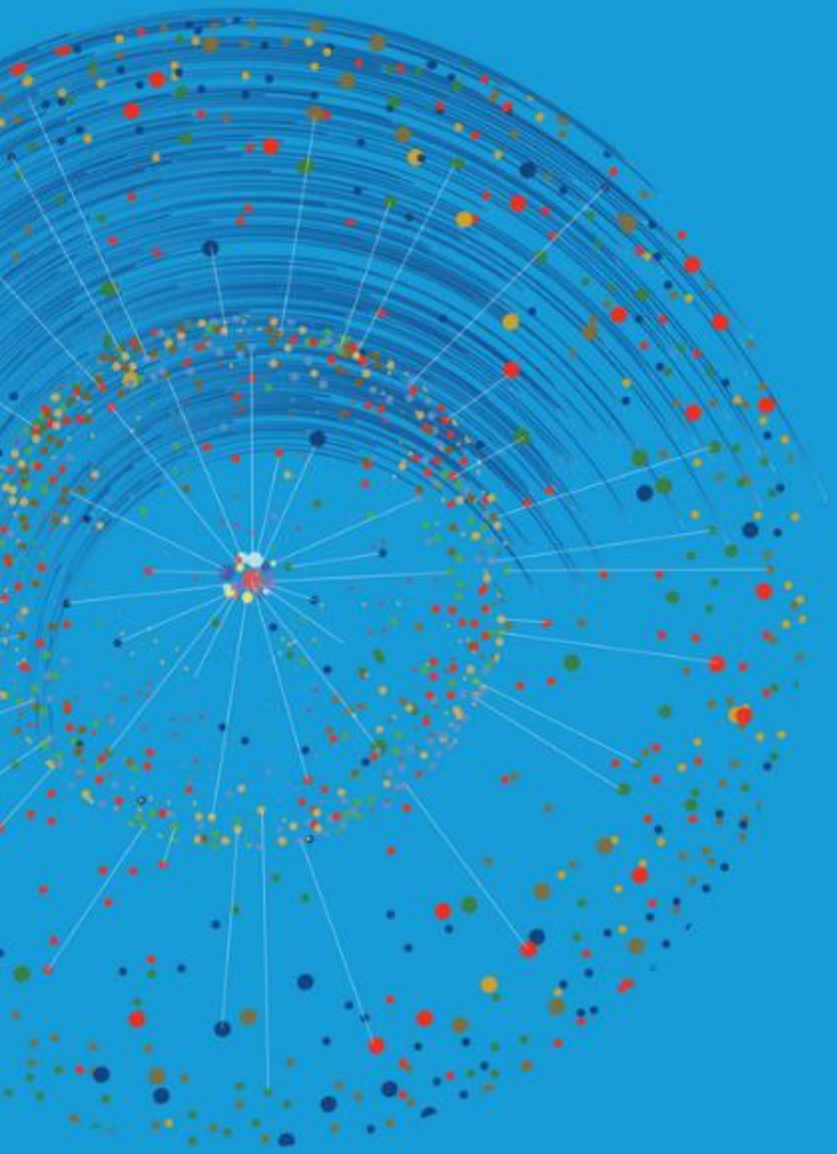
IGES
RCC Asia and the Pacific
Collaboration for Climate Action

Capacity Building Workshop

Advancing Article 6 Implementation in Papua New Guinea





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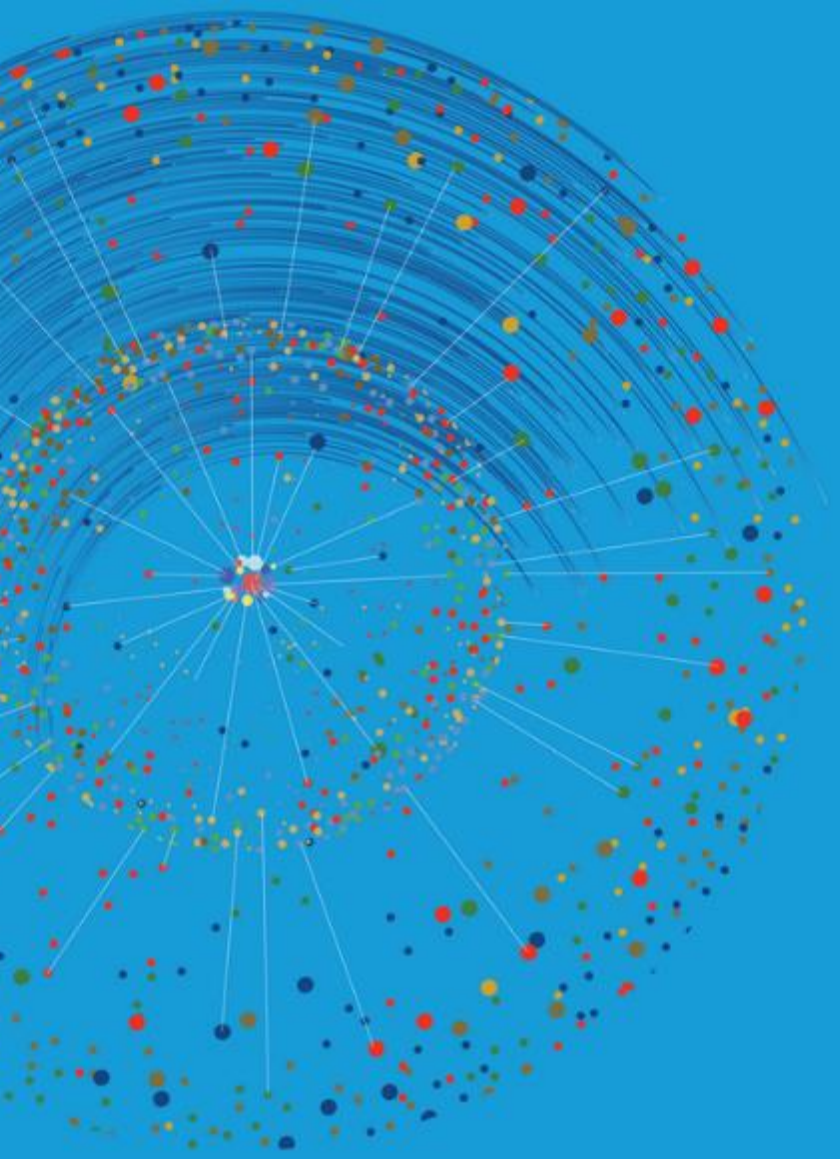
Welcome Remarks

Day 1 Agenda

Session	Time	Title
	08:00 - 08:30	Registration
	08:30 - 09:00	Welcome and Introduction
1	09:00 - 10:00	Introduction to Article 6: Cooperative Approaches
2	10:00 - 10:45	Managing Risks & Unlocking Opportunities in Article 6 for NDC Implementation
	10:45 - 11:00	Break
3	11:00 - 11:45	A6 Readiness Identifying Mitigation Activities & Institutional Engagement for Article 6.2
4	11:45 - 12:30	Understanding Article 6.4 Framework, Governance & Implementation
	12:30 - 01:30	Lunch
5	01:30 - 02:30	Country context Operationalizing Article 6.2 in Papua New Guinea
6	02:30 - 03:00	Embedding Workshop Learnings into National Strategies
	03:00 - 03:15	Break
7	03:15 - 04:00	Expert Clinic: Addressing Key Concerns
	04:00 - 04:15	Closing Session

Article 6 Abbreviations

Session 1



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Introduction to Article 6: Cooperative Approaches

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).

Article 6 of the Paris Agreement

PARIS2015
UN CLIMATE CHANGE CONFERENCE
COP21·CMP11

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

Understanding Art 6.4 & 6.2?

Corresponding Adjustment

Article 6.2

Bilateral Cooperation between Countries

Host Country 1 | Host Country 2

$ / Tech Support

ITMOs

Sectoral Level

UNFCCC

Mitigation Activity

Article 6.4

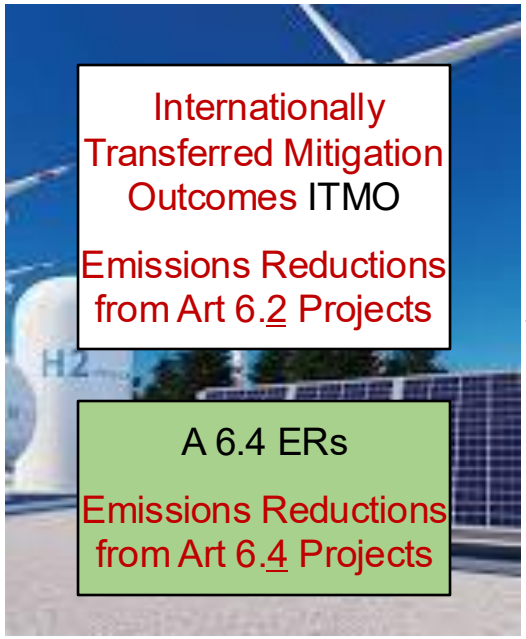
UNFCCC Supervisory Body

Entity in a Host Party 1 | Entity in a Host Party 2

$ / Tech Support

A6.4 ERs

Activity Level



ITMOs

YES

Authorized by HP

- Transfer towards NDC
- OIMP (Corsia, Etc)
- Authorized for purposes other than above two

CA

NO

MCUs (Mitigation Contribution Units)

- Domestic ETS
- Voluntary purpose

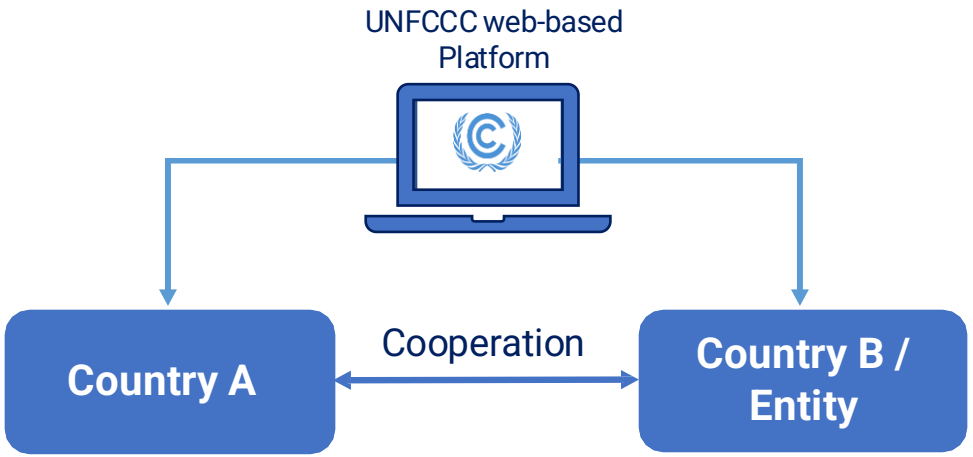
NO CA

Comparing ARTICLE 6.4 & 6.2

	Article 6.2	Article 6.4	
What it is?	Approach for cooperative action	Mechanism	
Key action(s)	Authorization	Approval	
Key outcomes	ITMOS	A6.4ERs which can be either:	
		approved Authorized A6.4ERs (are ITMOs)	MCUs
Corresponding adjustments	Always	Authorized A6.4ERs: Yes	MCUs: no
Type of oversight	Reporting & Transparency	Multilateral governance	
Registry	International registry *	A6.4 registry (under development)	
Project approval	Free (own, independent mechanism, etc.)	A6.4 Supervisory Body	Project approval
Baseline methodologies and additionality	Not specified – only high-level principles	As per A6.4 standards (WIP)	Baseline methodologies and additionality
Crediting periods	Not specified	10 years fixed or 3 x 5 years or shorter CP specified by host country	Crediting periods
Eligible projects	Emission reductions, removals	Emission reductions Removals under discussion	Eligible projects
Share of proceeds for OMGE	Not mandated but encouraged	2%	Share of proceeds for OMGE
Share of proceeds for adaptation	Not mandated but encouraged	5%	Share of proceeds for adaptation

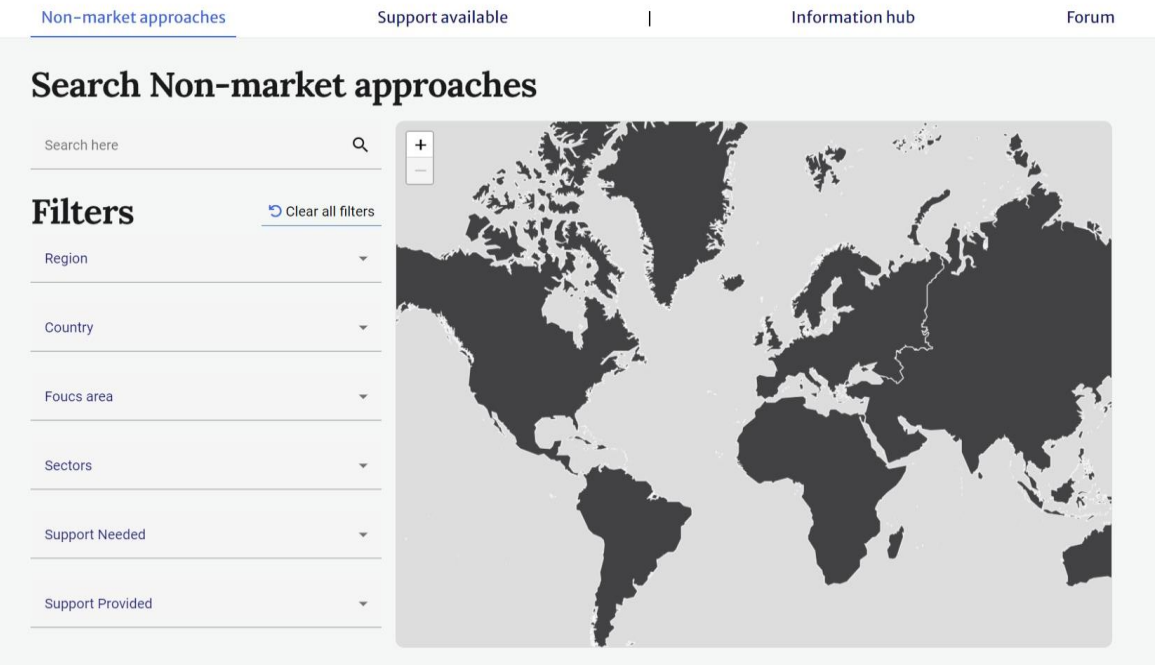
Article 6.8 Framework

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.

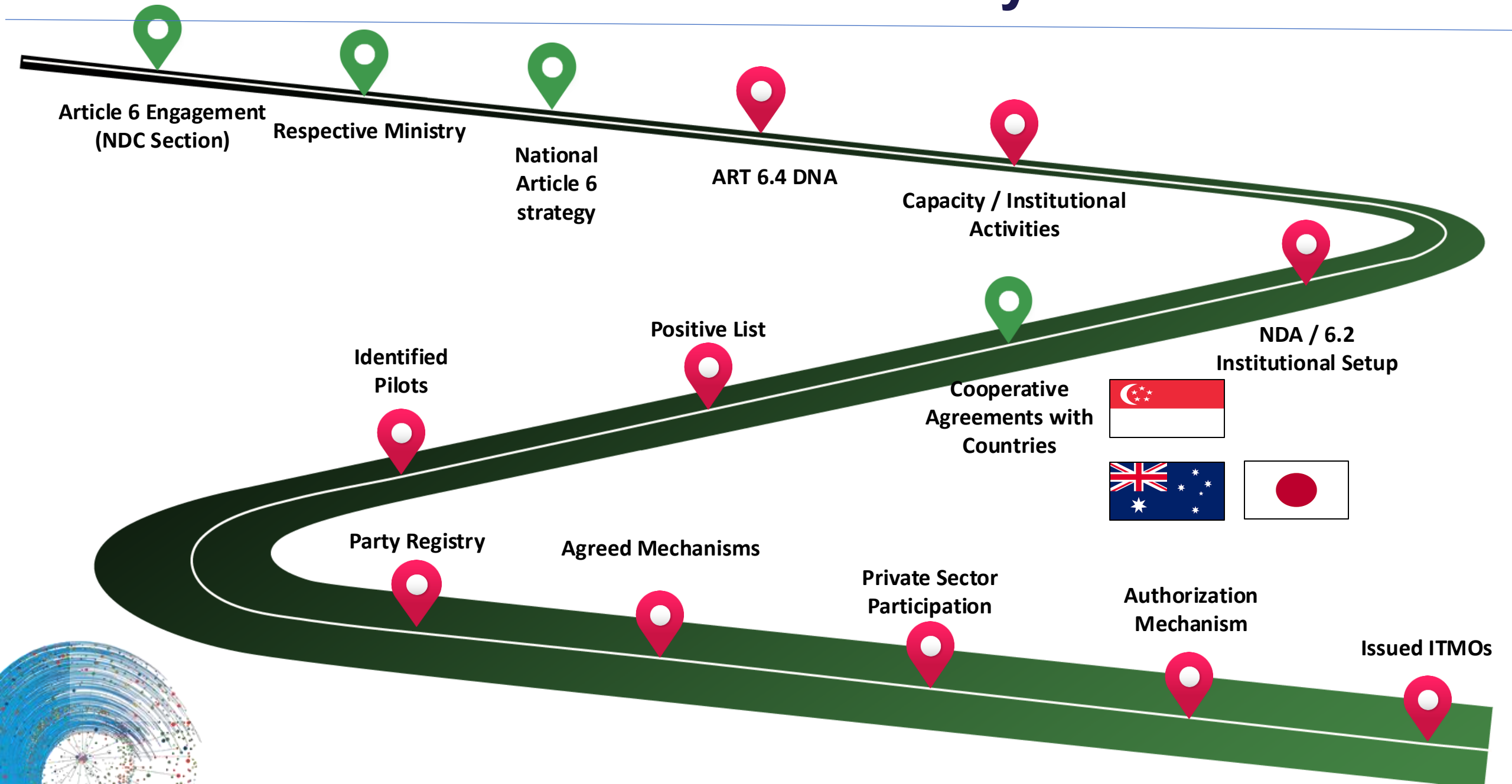


Source: Image extracted from NMA Platform, UNFCCC Secretariat

9-year journey for the full operationalization of Article 6

2015	2021	2022	2024
Adoption of the Paris Agreement	Completion of the Paris Rulebook	Adoption of further rules	Completion of further guidance
A6.2 Cooperative approaches	**Adopt the Guidance**: ITMOs, Participation requirements, CA methods, Reporting, Review, Infra for recording and tracking ITMOs	**Further guidance on**: Infra for recording and tracking ITMOs, Review guideline and rules and training programme for review team, Outline for reports incl. draft version of agreed electronic format	**Further guidance on**: Authorization, First transfer, Reporting format and additional elements, Inconsistencies of reported information and their consequences, Function of registries
A6.4 The mechanism	**Adopt the RMP:** Supervisory Body, Host Party requirements, Activity cycle, Registry, SOP & OMGE, CDM transition	**Further guidance on:** Procedure for transition of CDM activities and CERs, Reporting by Host Parties, Operation of the registry, Processes for SOP & OMGE, Rules of procedure of SB	**Further guidance on:** Standards for methodologies and removals, SD tools, Appeals and grievance process, Procedures for SB's decision making, Interoperability of the registry, authorization
A6.8 Non-market approaches	**Adopt the Work Programme:** Principles, Non-market approaches, Governance, Modalities, Activities, Reporting	**Further decisions on:** Schedule for implementing activities, Non-market platform, Additional focus areas for the activities	**Completion of Work Programme Phase 1:** Assessment of phase 1, recommendations, NMA platform and capacity building for phase 2

PNG Art 6 – Journey



Article 6 Participation Requirements

Article 6 participation between countries

Mandatory	Requirement Description	
	Article 6.2	Article 6.4
✓	Must be a Party of the Paris Agreement. (196 Parties)	
✓	Has prepared, communicated and is maintaining an NDC.	
✓	Has arrangements in place for **authorizing, tracking and reporting** the **use of ITMOs** towards achievement of NDCs.	**PRIOR TO PARTICIPATING** Has a **Designated National Authority (DNA)** in place and communicated that designation to the Secretariat and SB
✓	Submit most recent National Inventory Report - NIR (as part of BTR - Biennial Transparency Reports).	Has indicated publicly to the SB how participation in the **mechanism contributes to Sustainable Development**.
✓		Has indicated publicly to SB the type of Art 6.4 activities (**Sectors**) that it would consider approving
✓	Has to specify how this participation benefit and contribute to the implementation of its NDC and LT-LEDS (if submitted) and the long-term goals of the Paris Agreement.	
		May specify (more conservative) **baseline approaches** and crediting periods.

Cooperative Approaches under Article 6 of Paris Agreement

Parties to the Paris Agreement may choose to pursue voluntary cooperation in the implementation of their climate actions (Nationally determined contributions: NDCs) to allow for:

- **Higher ambition** in their mitigation and adaptation actions;
- To promote **sustainable development**; and
- To promote **environmental integrity**.

Higher ambition

- **Cost- effective mitigation actions,**
- **Access to low-carbon technologies,**
- **Carbon finance, and capacity building.**

Sustainable development

- **Environmental, economic and social co-benefits for the Host Country.**
- Progress towards **Sustainable Development Goals (SDGs).**

Environmental integrity

- **Robust, transparent governance** and the **quality of mitigation outcomes.**

Source: Information extracted from the A6IP Capacity Building Tools, Paris Agreement Article 6 Implementation Partnership Center, June, 2024.

Engagement in Article 6 Cooperative Approaches

Host Country 1

A. Positive List

B. Mechanism Art 6.4

Emission Reductions

Article 6.2

Bilateral Cooperation between Countries

Host Country 1

Host Country 2

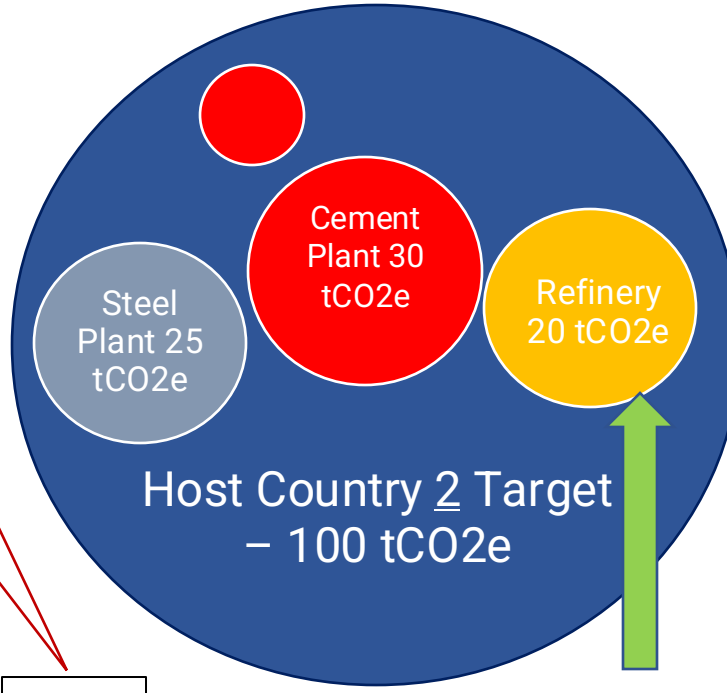
$ / Tech Support

ITMOs

UNFCCC

Sectoral Level

MCUs (Mitigation Contribution Units)



NO

Authorized by HP

Yes

ITMOs

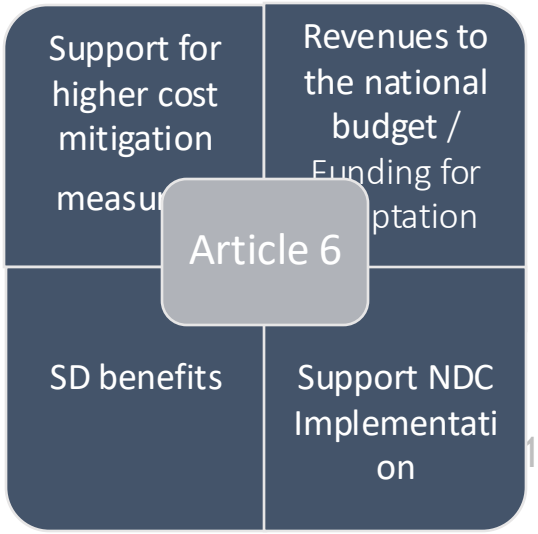
Benefits of participation in PACM (Article 6.4)

- **Multilateral governance and International oversight** under UNFCCC
- **One and only centralized Global carbon market mechanism established under Paris Agreement.**
- **Best positioned to tackle double counting under UNFCCC** – Integrated reporting and tracking mechanism
- **Two track National Approval process & Enhanced host party role** - Nationally Approved and Authorized.
- **Tracking** - mechanism registry operated by Article 6.
- **Multi prone Quality and Quantity assessment** – [independent third party DOEs, UNFCCC secretariat, 6.4 SBM]
- **Global Geographical coverage by any scheme (Accessibility) –** Scale, Type and Region Agnostic, **Multilaterally Approved standards** - **Global benchmark for baseline and crediting mechanism standards**.
- Strong provisions regarding **Sustainable development and continuous stakeholder inputs (covering all stakeholder types).**

Benefits of participation in PACM (Article 6.4)

- **Robust Appeals and Grievance mechanism**.
- **Equitable sharing of benefits between two participating parties**
- **One and only mechanism contribute to Adaptation through three means** to build resilience to the inevitable impacts of climate change for developing countries.
- **One and only mechanism contribute to Overall mitigation of Global emissions(OMGE)**.
- **Use for both compliance and non-compliance purposes** (NDC, MRV of climate finance, green bonds etc).
- **Fulfillment of reporting obligation under Paris Agreement** pre-fill all the information needed to report AEFs to the A6DB.

- The mechanism has the technical systems, offers unrestricted access and flexibility to users



Voluntary Markets and A6

- **Mitigation contribution units** (MCUs): (Netzero Approach of Corporates)
  - These **are NOT ITMOs** the mitigation achieved assists the host Party to achieve its NDC development goals

Non-Authorized

Operationalization of Article 6.4:

- may serve as **benchmark for existing and upcoming national and independent crediting standards**
- issue "**MCUs**" which do not undergo a corresponding adjustment and may be **used for various purposes such as at the domestic level**, for providing climate finance and for **voluntary climate action**, etc.
- VCM, last COP welcomed the recommendations of High-Level Expert Group on the Net-Zero Emissions Commitments of Non-State Entities (emphasized in particular **need for credits to be high-quality** and for the priority to be on own emission cuts)
- VCM is currently outside the scope of the Paris Agreement and the **formal negotiating track**

Choice of A6.4ER: Mitigation Contribution Units (MCUs)

Mitigation contribution (Article 6.4 only):

=>do not require a corresponding adjustment and may be used, “inter alia, for results-based climate finance, domestic mitigation pricing schemes, or domestic price-based measures, for the purpose of contributing to the reduction of emission levels in the Host party”.

=> uses in other markets, such as in the voluntary carbon markets or domestic markets.

At the moment, “mitigation contribution” can only be used for Article 6.4.

Article 6 Units	
6.2 ITMOs and 6.4 ITMOs/A6,4ERs (Authorized)	**6.4 Mitigation Contribution Units (Non-Authorized)**
▪ Requires corresponding adjustments ▪ May be used towards achievement of NDCs ▪ uses in other markets, e.g., voluntary carbon markets ▪ Uses for other international mitigation purposes (e.g., CORSIA)	▪ Do not require a corresponding adjustment ▪ May be used, “inter alia, for results-based climate finance, domestic mitigation pricing schemes, or domestic price-based measures, for the purpose of contributing to the reduction of emission levels in the Host party”. ▪ uses in other markets, e.g., voluntary carbon markets or domestic markets. ***Now, “mitigation contribution” can only be used for Article 6.4.***

CDM transition – Project Activities & PoAs

- Supervisory Body, approved the procedures for the CDM Transition in its 7th Meeting
- **Globally 3000 projects can transition from CDM to Art 6.4**

Activity Type	• Shall be among those **indicated publicly by the host party** to the Supervisory Body
Crediting Period/PoA period	• **Active as of 1 Jan 2021** • Ends either at the end of the current CDM CP/PoA period or 31 Dec 2025 (whichever is earlier) or as specified by the host party • Type (renewable or fixed) – not to change at or after transition • Renewals - carry over from CDM unless the Host Party specifies no-renewal
Additional activity design requirements	• Long-term benefits to climate change • Addressing non-permanence (all types of activities) – analysis of risks and planned monitoring and counter measures • Social impacts
Submission of transition request	• Submission of the form to the SB by **31 Dec 2023**

Countries Needs

Positioning, Required Actions to Fast-track Integration of A6 in NDC targets

Generic Needs	Countries consider carbon markets but need technical, institutional, and financial support
Article 6 Readiness	Capacity-building & technical support are needed to progress Article 6 implementation
Carbon Markets & NDCs	Carbon markets as tool for NDC but need institutional capacity and implementation support
Article 6 Mechanisms	Understanding 6.2 and 6.4 mechanisms interplay, reporting linked with Corresponding Adjustments
Frameworks & Digital Solutions	MRV Frameworks - Standards, digital registry/transaction systems
Private Sector Needs	Targeted capacity-building is required for private sector involvement in cooperative approaches
Collaboration	Focus on frameworks, positive lists, supports towards enhanced market mechanisms
Article 6 Implementation	Countries require support in developing baselines - Conditional vs Unconditional NDCs

Learnings Article 6 Operationalization

Complex Technical Nature of Article 6 operationalization, countries require

1. **Capacity Building** activities, possibility of **country level** technical assistance
2. Collaboration and **knowledge sharing platforms**
3. Countries **immediate** needs for Article 6 operationalization
   - Carbon Market Frameworks
   - Developing Project Lists (Positive / Green / Etc)
   - Addressing emerging implementation challenges
4. Building **private sector** readiness for effective carbon trading and ETS participation
5. Continuous engagement and **collaboration** essential to
   - Enhance carbon market mechanisms
   - Achieve NDC goals

Actions
Governments, Private Sector and Non-Party Stakeholders

GOVERNMENT

- Establish National Frameworks
- MRV Systems
- Engage the Private Sector
- Monitor Global Trends
- Strengthen Institutional Readiness
- Operationalize Article 6 Mechanisms

PRIVATE SECTOR

- Develop High-Quality Carbon Projects
- Engage in Carbon Markets
- Build Partnerships
- Risk Management

NON-PARTY STAKEHOLDER

- Financial Sector Innovative Products
- NGO/ IGO, etc, Advocacy and Policy Alignment
- Capacity Building

Actions - Governments

Key Actions for Article 6 Implementation

1

Identify Eligible Mitigation Activities

Select qualifying activities for cooperative approaches (e.g., carbon markets, ITMOs)

2

Build Capacity

Develop tailored capacity-building programs to avoid duplication and ensure effective technical assistance

3

Establish a Dedicated Office

office to oversee Article 6 implementation and stakeholder engagement

4

Submit Participation Forms

Complete required forms for participation in cooperative mechanisms like PACM

5

Engage the Private Sector

Collaborate with the private sector to implement on-the-ground mitigation activities

6

Develop Non-Market Approaches (Article 6.8)

Focus on non-market climate action like capacity-building and NDC support

Opportunities to achieve & Exceed NDC

Holistic & Integrated Approach

- Evaluates mitigation opportunities across all sectors.
- Considers interconnections between GHG emissions balance and abatement options.
- Identifies cost-effective mitigation across sectors and technologies.
- Defines an “NDC package” for implementation.

Implementation & Prioritization

- Flexible Strategy: Prioritizes activities aligned with NDC and national circumstances.
- Targeted Climate Finance: Directs funds to difficult-to-finance sectors.
- Scalability & Replication: Focuses on opportunities that can expand across sectors and regions.
- Technology Transfer & Uptake: Supports diffusion of priority climate technologies.

Objectives & Framing Conditions

1. Tailored Authorization Criteria

Key Considerations for activities

- ERs are measurable and align with long-term PA goals.
- Activities & methodologies contribute to NDC
- Identify SDGs contributions using SD tools verification.
- Suited to national contexts (e.g., whitelists, red lists, sectoral prioritization).

Strategic Approach:

- Comprehensive assessment of NDC commitments before authorizing ITMO transfers.
- Balancing risk and opportunities to safeguard national climate targets.

2. Assessing and Managing Risks

Risk Mitigation Strategies:

- Exclude unconditional NDC measures
- Limit the volume of accounted ITMOs to ensure domestic NDC compliance.
- Set ITMO prices high to replace A6 activity with alternative outside of NDC package.

Corresponding Adjustments:

- Prevent double counting: ITMO tracking and emissions balance adjustments.
- Multiyear or average accounting approaches
- Levy taxes or pricing adjustments to finance additional mitigation.

Jordan use a multi-year accounting approach (establishing an emissions trajectory).

3. Carbon Crediting Mechanisms

- Choice of crediting mechanism depends on national needs and capabilities.
- Mechanisms include international treaties, bilateral agreements, national regulations, or independent bodies.
- Authorized credits contribute to ITMO transfers under Article 6.

Thailand's national T-VER standard, upgraded to "Premium T-VER", issues the only credits eligible under A6.

Indonesia's SRN PPI standard has registration requirements but may recognize international standards via bilateral agreements.

Objectives & Framing Conditions

4. Developing Fee Structures

Fee Structure:

- **Purpose:** Cover administrative costs, generate revenue, and finance climate projects.
- **Types of Fee Structures:** share of proceeds, fixed charges, transaction fees, and environmental levies.

Zimbabwe registration fee: 25% of carbon credit share reinvested into local communities

5. Accounting Approach

Accounting Methods:

- **Averaging:** Simple but uncertain for meeting NDC targets.
- **Multi-year:** Better oversight but resource-intensive.

6. Balancing and Capturing Opportunities

Co-benefits: Align with SDGs (health, gender, just transition, economic diversification, etc.).

Market Positioning: Strengthen national branding in carbon markets.

- High-quality ambition supplier vs. low-cost supplier vs. high SD impact supplier.
- Influence on adaptation contributions and ITMO reuse strategies.

7. Institutional and Legal Arrangements

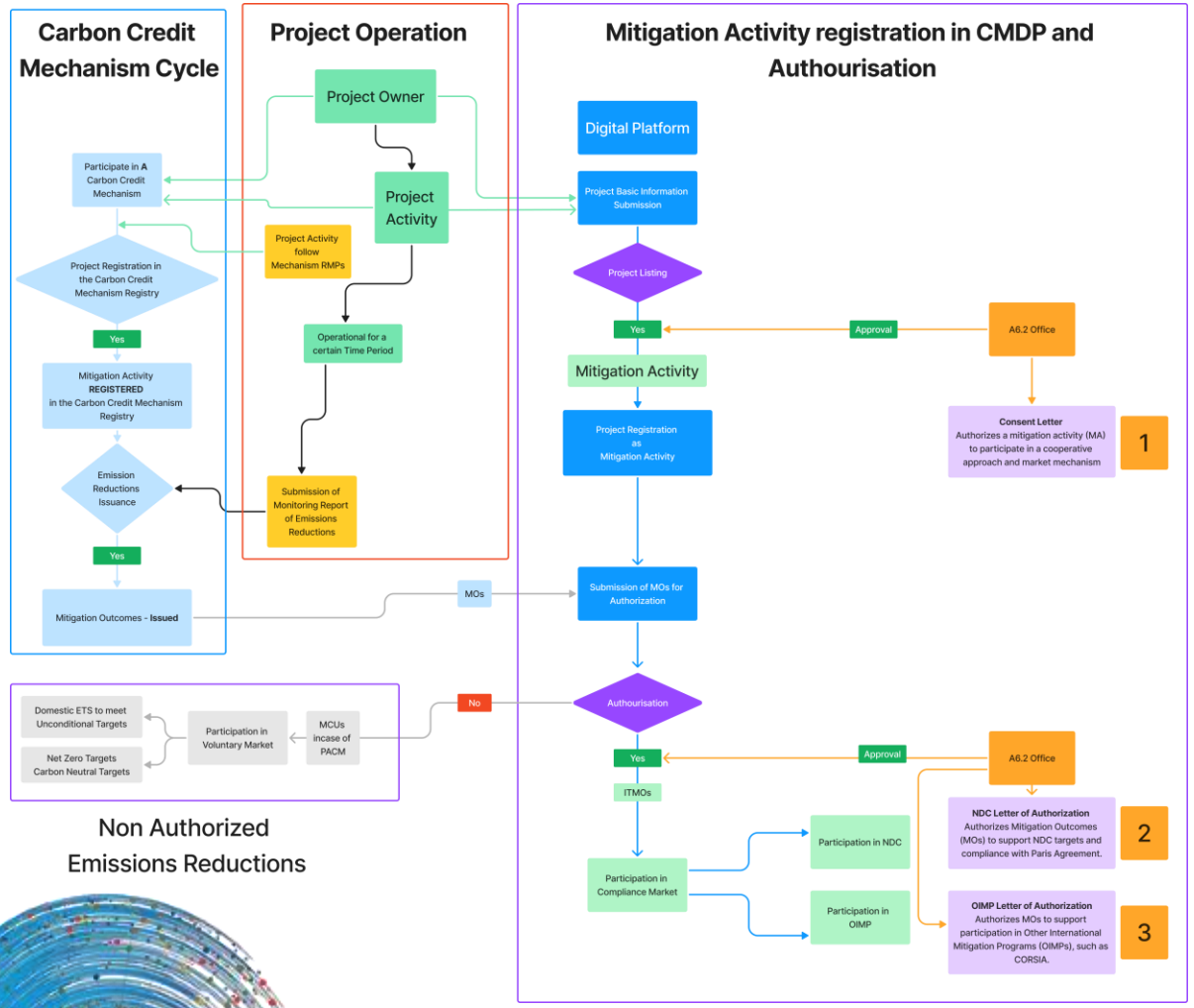
Institutional Structures:

- **Committee-led:** Multi-agency committee supports Article 6 implementation.
- **Ministry-led:** Specific ministry oversees functions and compliance.

Legal Framework Development:

- **Approaches:** Top-down legislation, bottom-up administrative measures, ad hoc guidelines.
- **Strategic Analysis:** Weigh short-term flexibility vs. long-term legislative robustness.

Article 6 Process Architecture



Non Authorized Emissions Reductions

Guiding Principles	Establish a set of guiding principles that align with Sri Lanka's broader climate policies and the objectives of the Paris Agreement.
Identification of Potential Mitigation Activities	Identify mitigation activities that can be scaled up through Article 6 mechanisms, such as renewable energy projects, energy efficiency initiatives, and sustainable land management practices.
Institutional Arrangements	Define the roles and responsibilities of national institutions involved in the implementation of Article 6, ensuring proper coordination among stakeholders, including government agencies, private sector, and civil society.
Policy Framework and National Strategy Components	Develop a comprehensive policy framework that integrates national climate strategies and ensures that Sri Lanka's emission reduction goals are met in line with its NDC targets.
Capacity Building for Inclusive Participation	Focus on capacity building to ensure inclusive participation from all stakeholders, enabling effective engagement in the implementation of Article 6 mechanisms.
Engaging in Cooperative Approaches with Other Countries	Actively engage with other countries in cooperative approaches under Article 6 to foster cross-border collaboration and enhance emission reduction efforts.
Authorization of Emission Reductions	Establish mechanisms for the authorization of emission reductions, including the implementation of levies, fees, and withholding of credits to ensure the integrity of emission reductions.

Readiness Phase

ionalization & entation Phase

Why Does All This Matter?

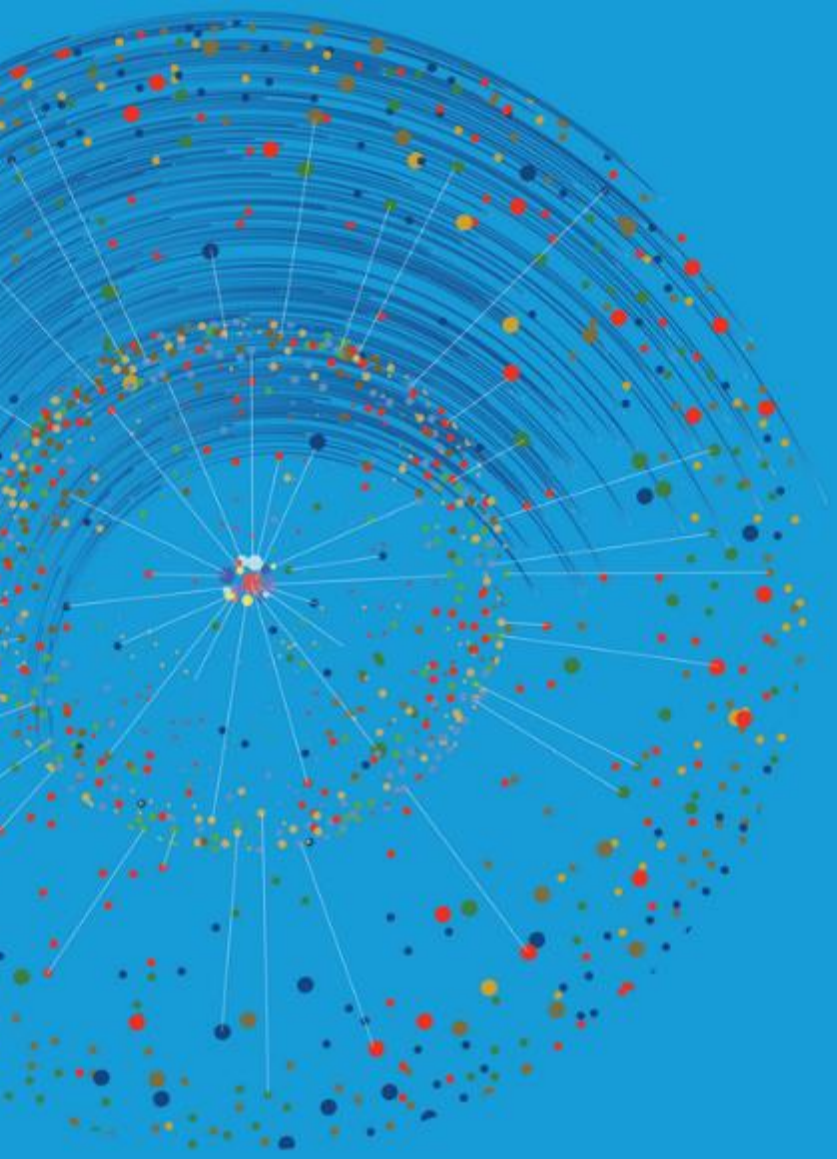
- Article 6 is an important part of the world's "toolbox" for addressing climate change
- Article 6 is the only part of the PA that directly engages the business and private investment sector in directly implementable activities in which they can invest
    - There is strong real-world potential for 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

In Conclusion

Well Functioning & High Integrity Market!

- COP29 - unlocking the Potential of Carbon Markets for Greater Climate Action
- Private sector should **accelerate** efforts in CDM transition & New Markets
- **Engagement ministries**, important to overcome challenges and raise awareness on project development phase
- Build the **capacity of sectoral actors** to identify long term mitigation actions
- Cost benefit analysis or economic modelling to **convince policymakers** on the possible list of projects under 6.2 and 6.4
- share experience from business leaders on how private sector tackle climate change issues and reaffirm **net-zero commitments** and usage of **Carbon credits** by ensuring **integrity**



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Open Discussion

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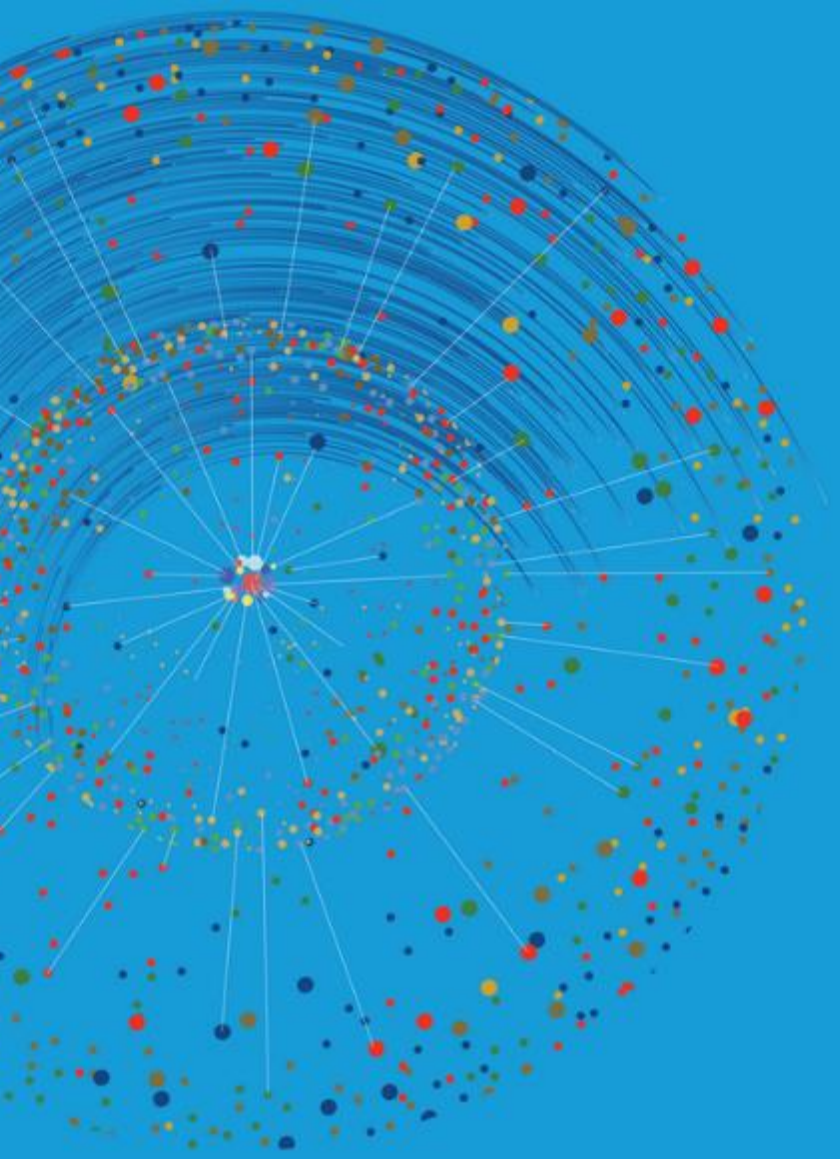
Session 2



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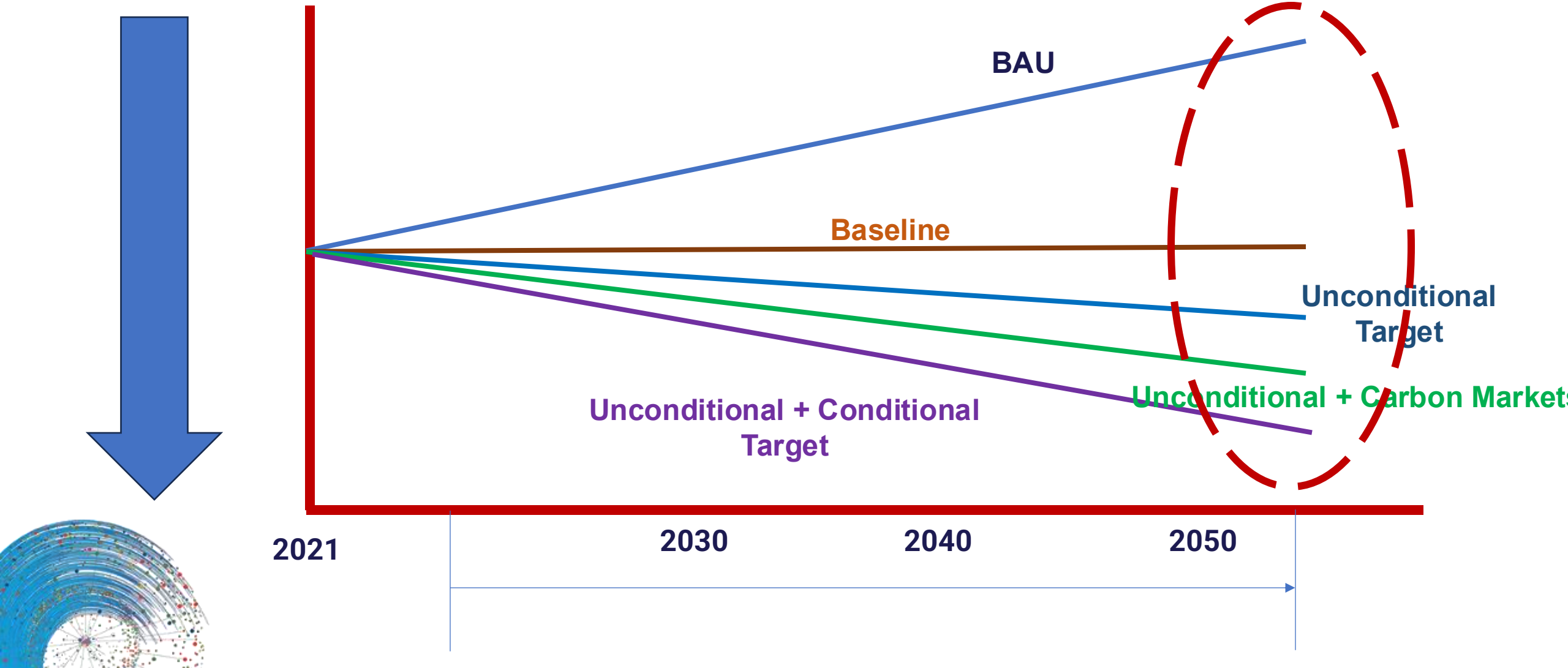
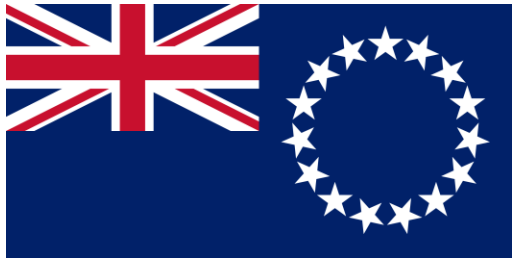
Managing Risks & Unlocking Opportunities in Article 6 for NDC Implementation

Creating Mitigation Outcomes Leveraging National Assets under NDCs



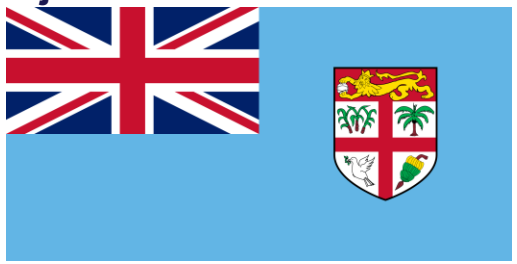
Pacific Islands NDCs & Art 6

Cook island



Unconditional: 38% reduction in emissions from electricity generation by 2020 (base year 2006).
Conditional: 81% reduction in emissions by 2030 support.
Carbon Pricing: None.

Fiji



Target: 30% reduction in BAU CO2 emissions from the energy sector by 2030. Net zero GHG by 2050.
Roadmap: Developing a carbon mechanism.
Carbon Pricing: None.

Kiribati

Unconditional: 9.5% reduction by 2025 and 8% by 2030 (BAU).
Conditional: 16.7% reduction by 2025 and 23.8% by 2030 (BAU).
Carbon Pricing: None.

Marshall Island

Targets: 32% reduction below 2010 levels by 2025, 45% by 2030, and 58% by 2035.
Carbon Pricing: None.

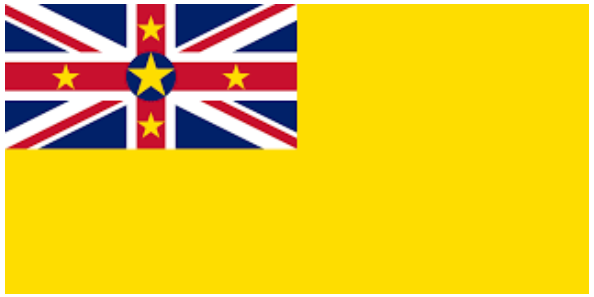
Micronesia

Conditional: 100% electricity access, 70% renewable electricity generation, and 65% reduction in CO2 emissions from electricity generation by 2030.
Carbon Pricing: None.

Nauru

Targets: 32% reduction below 2010 levels by 2025, 45% by 2030, and 58% by 2035.
Carbon Pricing: None.

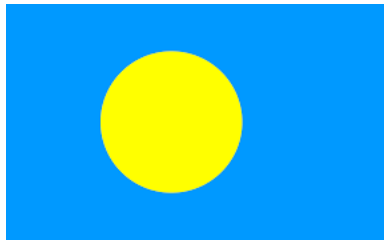
Niue



Unconditional: 38% renewable energy in electricity by 2020.
Conditional: 80% renewable energy in electricity by 2025 with international assistance.
Carbon Pricing: None.

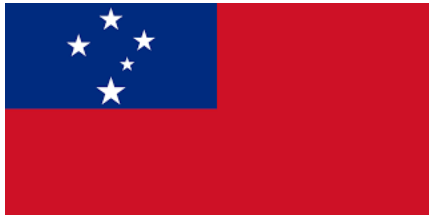
Pacific Islands NDCs & Art 6

Palau



Targets: 22% reduction in energy sector emissions by 2025, 45% renewable energy by 2025, 35% energy efficiency by 2025.
Carbon Pricing: None.

Samoa



Target: 26% reduction in GHG emissions by 2030 compared to 2007 levels.
Carbon Pricing: None.

Tonga

Targets: 13% reduction in energy sector by 2030, 30% land for agro/forestry by 2025, maintain fish/marine stocks through MPAs.
Carbon Pricing: None.

Papua New Guinea

Conditional: Carbon neutrality in energy industries by 2030, 10,000 Gg CO2 eq reduction from deforestation and degradation by 2030.
Carbon Pricing: None.

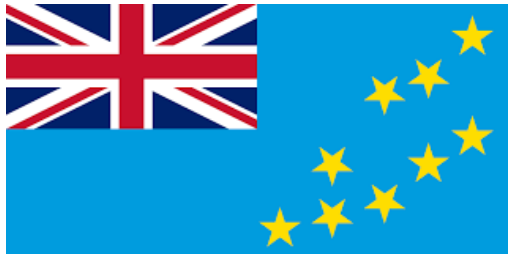
Solomon Island

Unconditional: 14% reduction by 2025, 33% by 2030.
Conditional: Further 27% reduction by 2025, 45% by 2030 with international assistance.
Carbon Pricing: GGGI working on a strategy.

Vanuatu

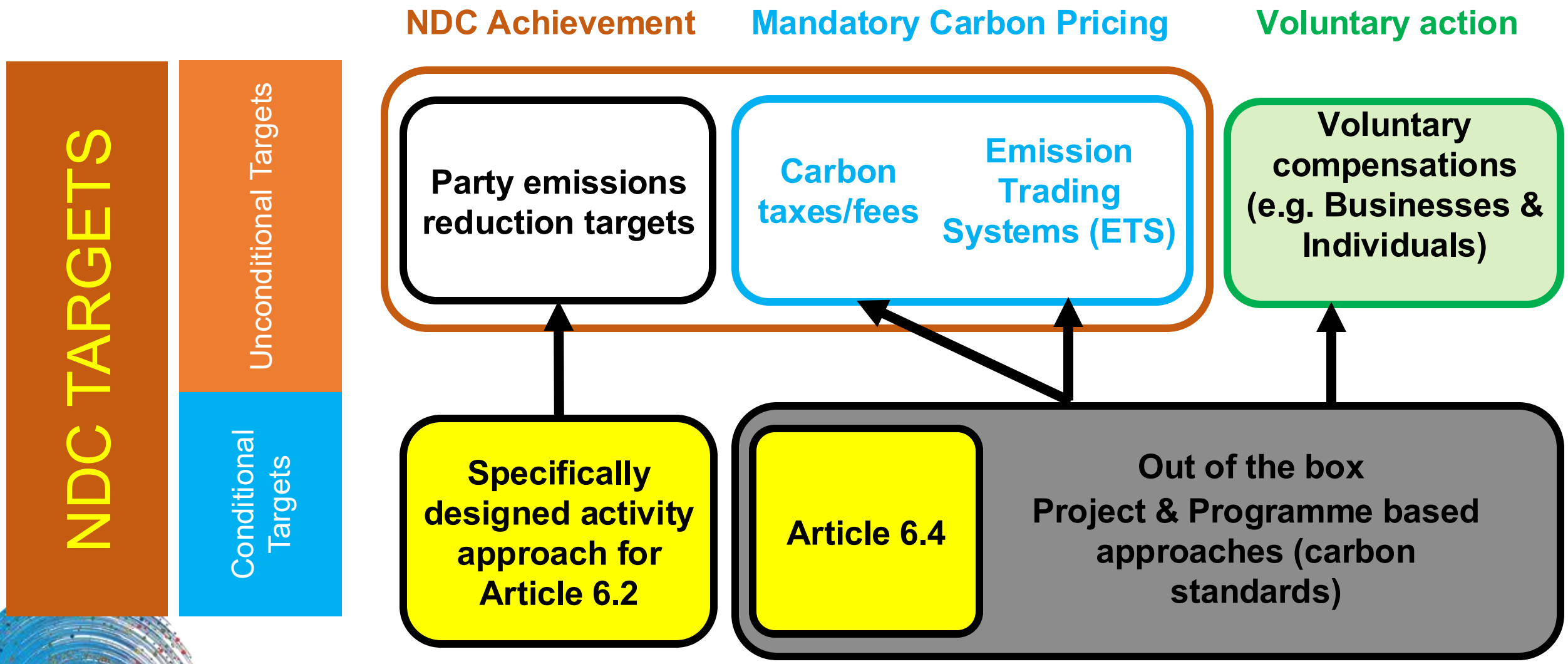
Target: 100% renewable energy in electricity by 2030.
Partnership: Exploring domestic carbon pricing with Switzerland under Article 6.
Carbon Pricing: Under exploration.

Tuvalu



Targets: 100% reduction in GHG from power sector, 30% energy efficiency in Funafuti by 2030, 60% reduction in energy sector GHG by 2030.
Carbon Pricing: None.

Linkages : NDC & Carbon Pricing Instruments



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).

Implementation of NDCs

Un Conditional	Implementation	Conditional
Internal Actions		External Supports

A6

THE PARIS AGREEMENT

Article 6

1. Parties recognize that some Parties choose to pursue voluntary cooperation in the implementation of their nationally determined contributions to allow for higher ambition in their mitigation and adaptation actions and to promote sustainable development and environmental integrity.

2. Parties shall, where engaging on a voluntary basis in cooperative approaches that involve the use of internationally transferred mitigation outcomes towards nationally determined contributions, promote sustainable development and ensure environmental integrity and transparency, including in governance, and shall apply robust accounting to ensure, inter alia, the avoidance of double counting, consistent with guidance adopted by the Conference of the Parties serving as the meeting of the Parties to this Agreement.

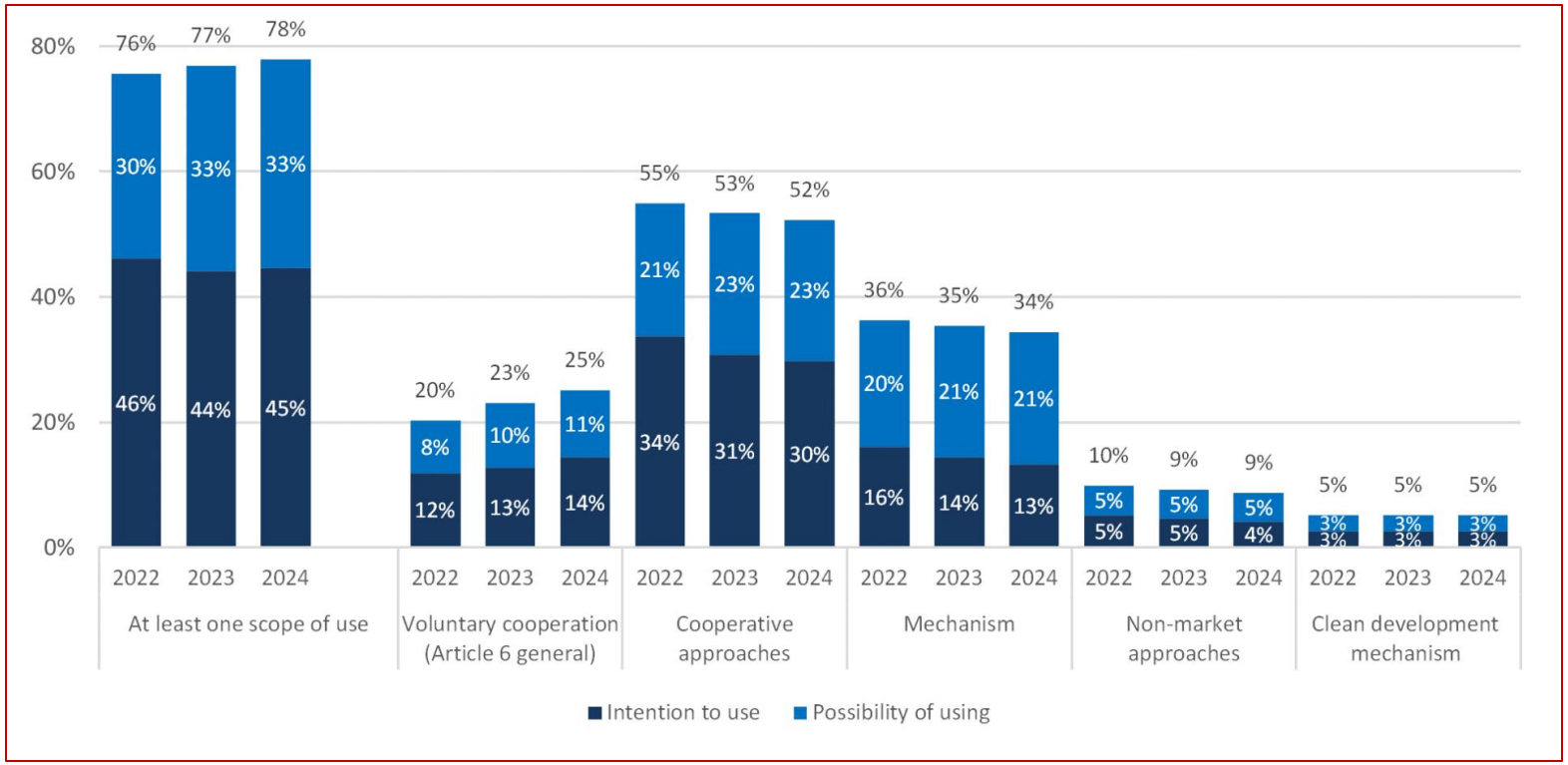
3. The use of internationally transferred mitigation outcomes to achieve nationally determined contributions under this Agreement shall be voluntary and authorized by participating Parties.

FCCC/CP/2015/10/Add.1

United Nations
Framework Convention on
Climate Change

Intention to use Article 6

78% of Parties to the Paris Agreement stated that they plan to or will possibly use at least one type of voluntary cooperation under Article 6 of the Paris Agreement.



https://unfccc.int/process-and-meetings/the-paris-agreement/nationally-determined-contributions-ndcs/2024-ndc-synthesis-report#Targets

Updates on Article 6 Global vs Pacific Islands

- **78%** of the Parties to the Paris Agreement indicate that they plan to, or may, **use at least one type of Article 6** cooperation in their NDCs[1]

A6.2

- **8** Parties submitted A6.2 **Initial Report**[2] (as of 10 Dec. 2024) **(1)**
- **6** Parties **underwent A6 Technical Expert Review** (TER) in Oct. 2024
- **2** Parties have already submitted **authorization statements**

A6.2 Initial Report of Vanuatu

A6.4 [3]

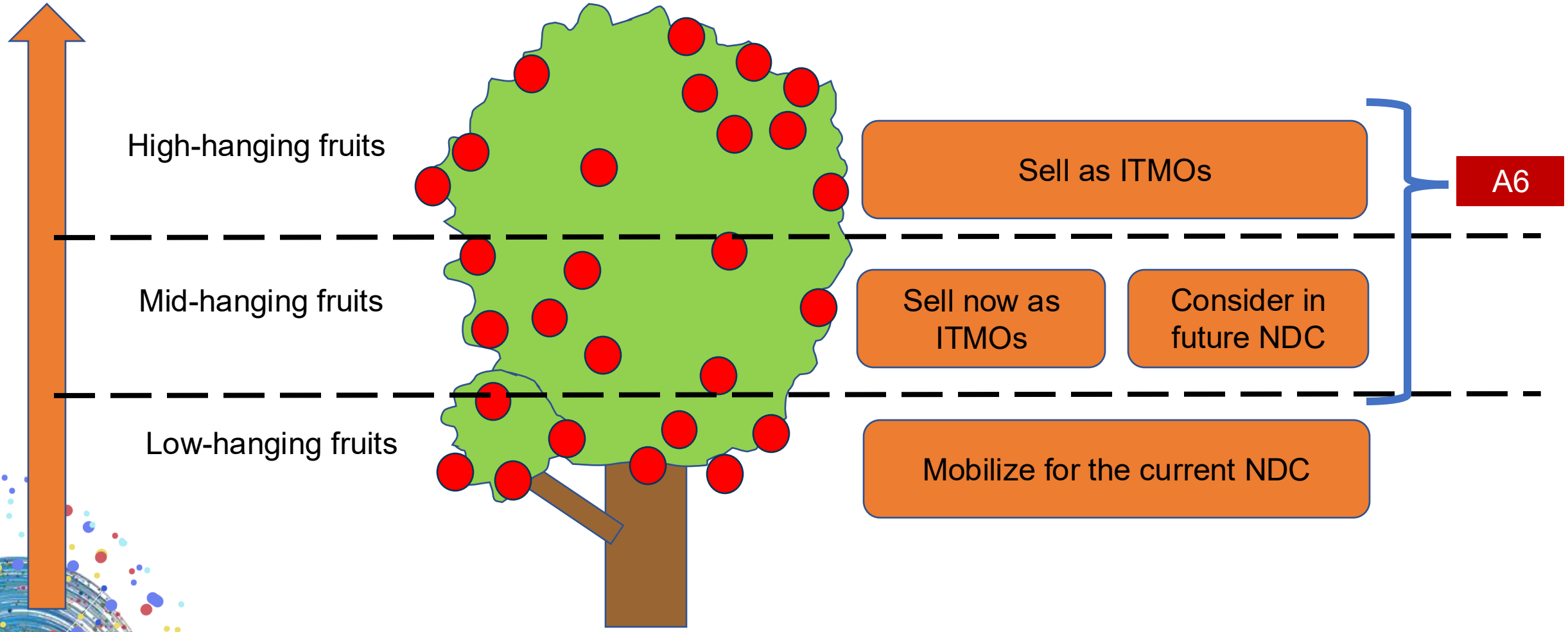
- **95+ Parties** submitted a designated national authority (**DNA**) for the PACM **(7 out of 14)**
- **20+** designated operational entity (**DOE**) submitted application
- **1000+ prior notification** for **new activities** submitted **(0)**
- **10** approval **transition activities** **(0)**
- **12 Parties** submitted the **host Party fulfillment forms** **(0)**
- **1500+** transition activities completed global stakeholder consultation process under 6.4 **(0)**

Bilateral Agreements
7 of 90

Projects 1 of 22

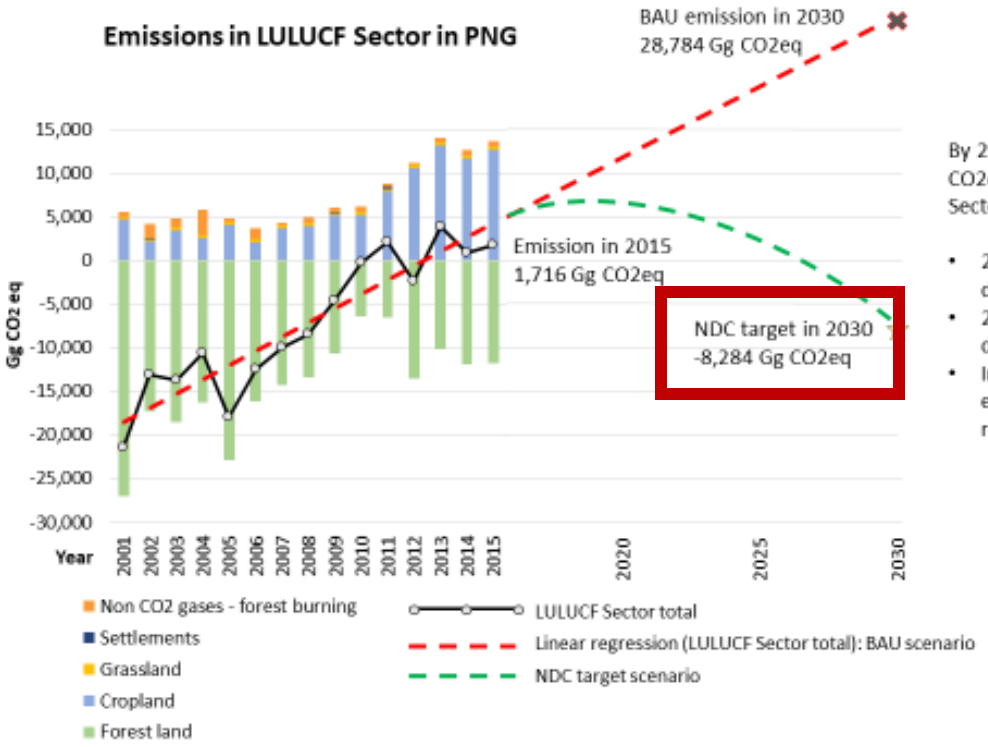
[1] https://unfccc.int/process-and-meetings/the-paris-agreement/nationally-determined-contributions-ndcs/2024-ndc-synthesis-report#Targets
[2] https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement/cooperative-implementation/carp/submitted-reports#Initial-and-updated-reports
[3] https://unfccc.int/process-and-meetings/the-paris-agreement/article-64-mechanism

Climate Action – Mitigation Opportunities



PNG's NDC 2.0 - Targets

LULUCF



By 2030, PNG will reduce 10,000 Gg CO2e emissions of the LULUCF Sector against 2015 level by;

- 25% reduction of annual deforestation;
- 25% reduction of annual forest degradation;
- Increase of forest plantation and enhancement of ecosystem restoration.

Renewable Energy Expansion Plan (On-Grid Connection)

Increase renewable energy share from 30% (2015) to 78% (2030) in the on-grid energy mix.

Renewable Energy Technologies

- Biomass: 2 projects
- Solar: 12 projects
- Hydro: 22 projects

NDC 2.0 Implementation cost for PNG - 1.3 Billion USD

Overview: Sources of demand

Demand for carbon credits from four segments:

1. The NDC compliance market
2. The CORSIA compliance market
3. The market for compliance against domestic carbon-pricing scheme
4. 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

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

CORSIA eligible standards for credits

- Pilot Phase (2021-2023): 11 standards
- First Phase (2024-2026): 6 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	X
Forest Carbon Partnership Facility (FCPF)	X	
Global Carbon Council (GCC)	X	X
The Gold Standard (GS)	X	X
SOCIALCARBON	X	
Verified Carbon Standard (VCS)	X	X

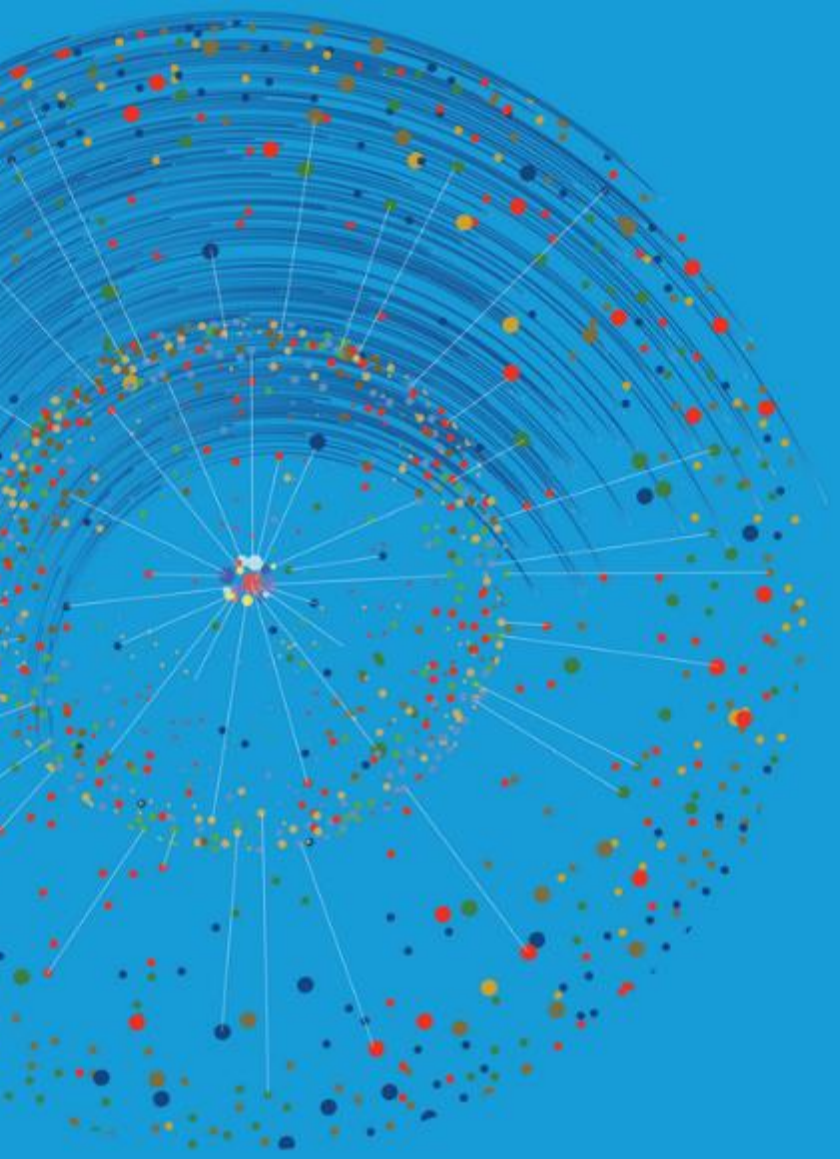
https://www.icao.int/environmental-protection/CORSIA/Documents/CORSIA%20Eligible%20Emissions%20Units/CORSIA_EEU_Oct2024.pdf

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.



United Nations Climate Change

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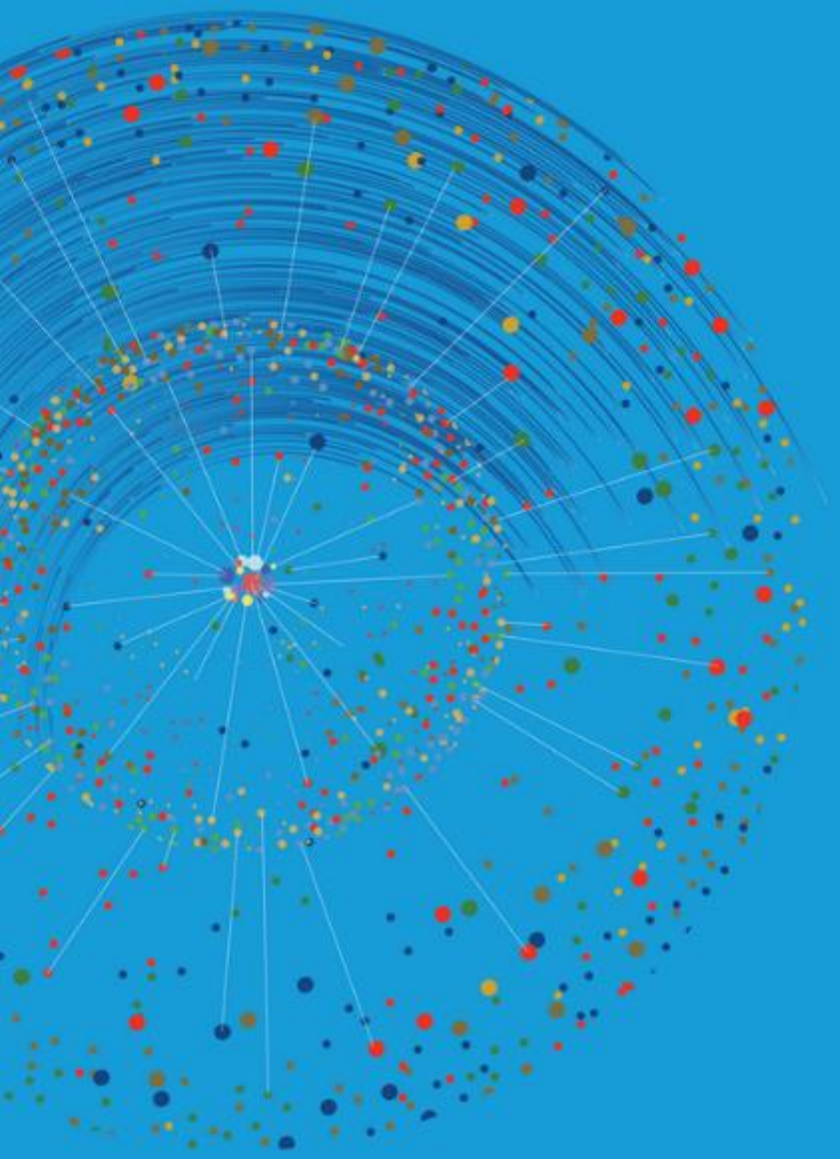
CLIMATE CHANGE & DEVELOPMENT AUTHORITY

NDC PARTNERSHIP

Open Discussion



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Collaboration for Climate Action

CLIMATE CHANGE & DEVELOPMENT AUTHORITY

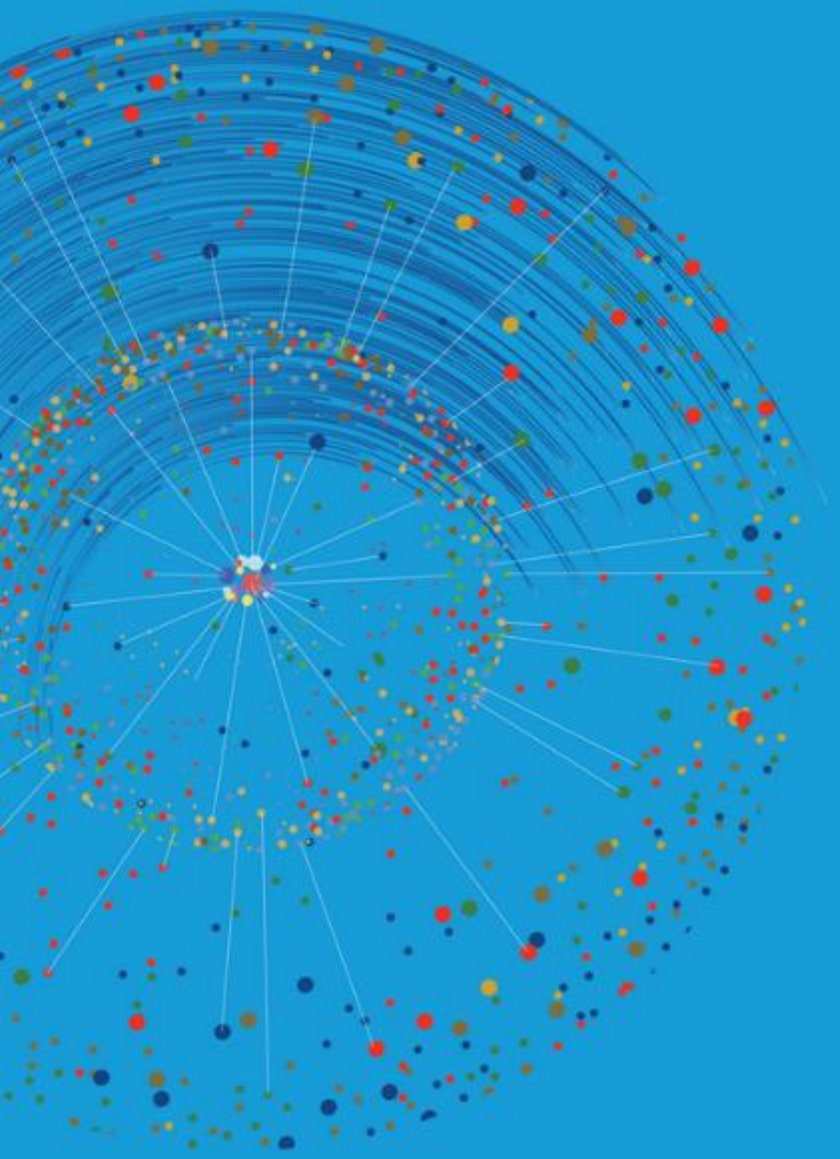
NDC PARTNERSHIP

Break

Day 1 Agenda

Session	Time	Title
	08:00 - 08:30	Registration
	08:30 - 09:00	Welcome and Introduction
1	09:00 - 10:00	Introduction to Article 6: Cooperative Approaches
2	10:00 - 10:45	Managing Risks & Unlocking Opportunities in Article 6 for NDC Implementation
	10:45 - 11:00	Break
3	11:00 - 11:45	A6 Readiness Identifying Mitigation Activities & Institutional Engagement for Article 6.2
4	11:45 - 12:30	Understanding Article 6.4 Framework, Governance & Implementation
	12:30 - 01:30	Lunch
5	01:30 - 02:30	Country context Operationalizing Article 6.2 in Papua New Guinea
6	02:30 - 03:00	Embedding Workshop Learnings into National Strategies
	03:00 - 03:15	Break
7	03:15 - 04:00	Expert Clinic: Addressing Key Concerns
	04:00 - 04:15	Closing Session

Session 3



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CLIMATE CHANGE & DEVELOPMENT AUTHORITY

NDC PARTNERSHIP

A6 Readiness
Identifying Mitigation Activities & Institutional Engagement for Article 6.2

Article 6 Readiness

National Strategy

- Political Mandate.
- Objective and type of A6 Cooperation.
- Guiding Principles.
- Eligibility criteria.
- **Eligible Sectors/Activities?**
- Conditions for authorization?
- For which uses will authorization be granted?

A detailed and public country-level Strategy will likely provide confidence and clarity to donor countries and institutions, project developers, sectoral ministries, government agencies, and the private sector.

Manage Opportunities and Risks

- ❑ Identify how Article 6 supports the NDC and the LT-LEDS.
- ❑ Define criteria and conditions for authorizations and manage risks.
- ❑ Activities and Sectors.
- ❑ Quantity of Mitigation Outcomes that are transferable.

Meet A6.2 and A6.4 participation requirements.

- ❑ Governance system and responsible institutions.
- ❑ Procedures for approving, authorizing, transferring, accounting, and reporting.
- ❑ Continuous update of National Inventories.
- ❑ Update and quantification of NDC targets. Infrastructure for ITMO registry.

Integration with other carbon pricing instruments.

- ❑ Linkage with domestic approaches.
- ❑ Linkage with other international mechanisms.
- ❑ Implications of exporting mitigation outcomes.

Article 6 Readiness

1

Develop national Article 6 strategy

2

Build and Install national capacities

3

Governance & arrangements

4

Put legal regulations in place

5

Establish Institutional processes

Some indicative steps to take advantage of Article 6 Cooperation

Article 6 Activities Type

Trading of Mitigation Outcomes

Art 6.2 and Art 6.4 (markets)

Removals

Enhancement of forest carbon stocks (Reforestation/Afforestation)

Carbon Removal Technologies

Emissions Reductions

Mitigation Activity

Sustainable Forest Management
Conservation of forest carbon stocks

Transition to renewable energy

E-mobility

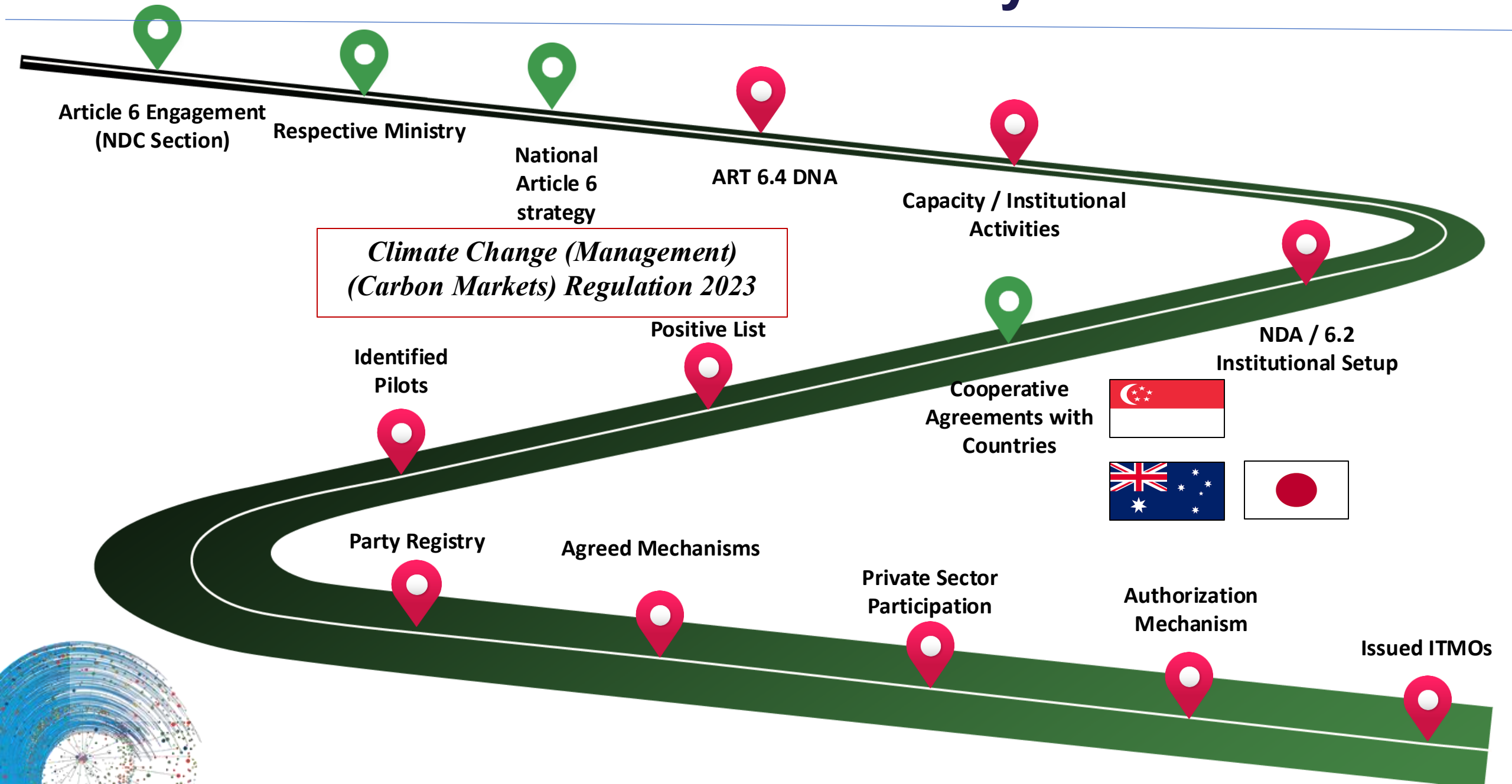
Energy Efficiency

Art 6.8

No Trading of Mitigation Outcomes

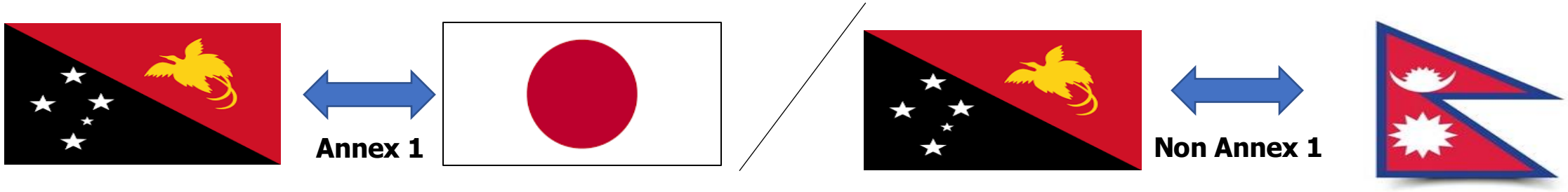
Adaptation, Mitigation and/or Means of Implementation Activities without transfer of mitigation outcomes

PNG Art 6 – Journey



Institutional Arrangements for Article 6.2

1. Bilateral Agreements between two countries



2. **Electronic Registry** in place to manage ITMOs (ensure transparency)

3. Arrangements in place for ITMOs, towards achievement of NDCs
   - **Authorize** : Governance Body (***Institution, Official Or Position, to issue ITMOs)***
   - **Track** : Electronic medium / Registry to track the ITMOs, ensuring the Art 13 of the PA
   - **Report** : Initial Report to Annual Report to Biennial Report

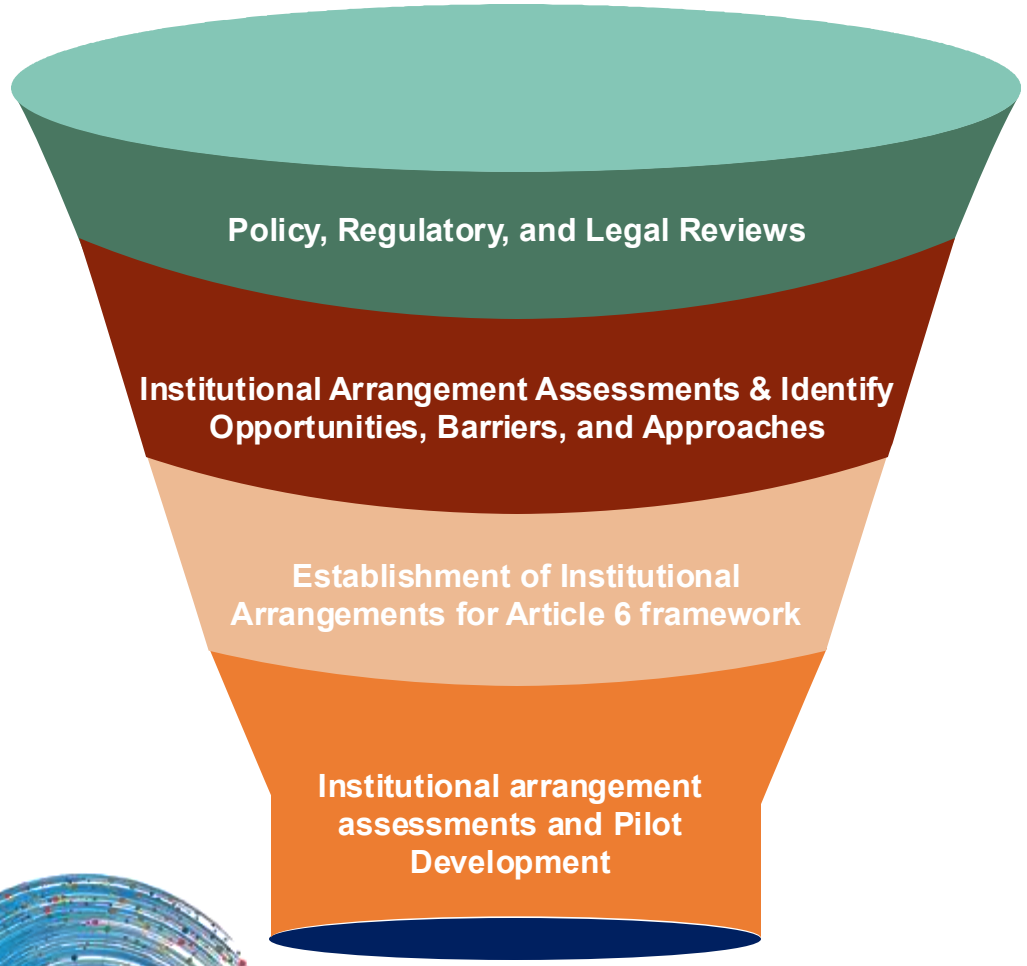
4. Governed under NDC commitments and transparency ensured through CARP (Centralized accounting and reporting platform)

Article 6 : Institutional Setup

Well-Functioning & High Integrity Market!

- **Multilevel ministries**, important to overcome challenges & awareness on initial phase
- Build the **capacity of sectoral actors** to identify long term mitigation actions
- **Cost benefit** or economic to convince policymakers on possible list of projects under 6.2 & 6.4
- Carbon markets to achieve & exceed ambition pledged under the multilateral framework –domestic or international carbon markets

Developing Institutional framework



1. Needs Assessment
2. Capacity Building
3. Guidelines and Manuals : for implementing Article 6 provisions, including cooperative approaches and the crediting mechanism
4. Stakeholder Engagement and Knowledge Sharing
5. Policy Recommendations

Key Institutional Functions in A6.2 Engagement

Host countries will need to designate government institutions to perform specific functions related to Article 6.2

Inter-ministerial Committee, Cabinet

- Approve procedures for authorization of mitigation outcomes.
- Strategic Priorities for A6 Cooperation.
- Delegate authority to a specific position.

Policy Coordination
High-level Decisions

Rulemaking
Guidance and review

- Guide and oversee A6.2 implementation functions.

Lead-agency or Ministry

Department, Focal Point

- Authorize mitigation outcomes for transfer under bilateral agreements.
- Execute transfer for ITMOs.
- Prepare initial, annual and BTRs (Mos, transfer and CA).
- Relevant info into a registry system.

Implementation
Execution and reporting

Technical Advisory
Expert Review

- Provide analysis of impact of potential projects/transfers on NDC compliance.
- Provide advice on the fulfillment of functions.

Existing Technical Committee

Independent auditors

- Validate design of projects.
- Verify project mitigation outcomes.

Auditing
3rd Party Certification

Source: Extracted from Guidance on Governance Models for Host Country Engagement in Article 6, Global Green Growth Institute (GGGI), 2022.

NDA – National Designated Agency or A6 Office

Key Institutional Functions in A6.2 Engagement

- Develop strategies for implementing NDC targets (current and future), integrating Article 6 into NDCs
- Identify relevant institutions, legal mandates, roles, responsibilities, and obligations under carbon markets.
- Oversee Article 6-related activities through the establishment of National Authorities (NDA, DNA), coordinating with relevant institutions and ministries
- Evaluate CDM experience, domestic carbon pricing, carbon markets, and compliance with Article 6 provisions
- Define legal mandates, roles, responsibilities, and obligations under carbon markets
- Roll out institutional arrangements: well-defined institutional setup for effectively operationalizing Article 6
- Readiness and engagement with various stakeholders for potential Article 6 activities

Governance Functions under Article 6

- Functions required for the host country
- Allocation of functions to new or existing bodies
- Building on existing institutions and reporting structures can leverage capacity, minimize costs, and draw on existing relationships.
- Coordination between related ministries/agencies is important – overarching coordinating and decision-making bodies on domestic climate policy (NDC updates, reporting under enhanced transparency framework, etc.)

Functions	Decision body	Executive body	Administrator	Technical Committee
Policy coordination and oversight	🟢	🟡	🔴	🔴
Rulemaking	🟡	🟢	🟡	🔴
Technical advisory	🔴	🔴	🔴	🟢
Implementation	🔴	🔴	🟢	🔴

Institutional Functions in A6.4 Engagement

Article 6.4 DNA - Designation of National Authorities

Art 6.4 DNA mandatory by Host Party to participate (PNG – Yet to Nominate)

The prioritization of preferred Art 6.4 activities may conclude on a defined strategy that ensures activities go beyond NDC targets and may respond to:

- Which sectors will be targeted?
- Which types of activities are preferable in these sectors?
- Evaluate the potential of quantification of the Mitigation measures => engage in easy measurable activities
- Evaluate the cost/effort to distribute Mitigation Outcomes use:

  e.g. High cost/effort => ITMOs / Low cost/effort => NDC

Identifying A6 Activities & Criteria Establishment

The processes for determining eligible mitigation activities encompass:

1

Defining roles and responsibilities

- ❑ **Identification of activities.**
- ❑ **Screening for eligibility.**
- ❑ **Roles of A6 unit and ministries.**

2

Understanding the level of achievement of the NDC to ensure activities go beyond its targets:

- ❑ **Identify key indicators and track NDC performance (for reporting and decision making).**

3

Defining a process for standardized classification of activities as eligible:

- ❑ **Options: positive lists, negative lists, Project by Project, additionality assessment.**

4

Informing relevant ministries, agencies and the private sector of the conditions for eligibility

5

Publishing a process for application with clear criteria

Source: Illustration extracted from the SPAR6C Program, Carbon Markets and Article 6 of the Paris Agreement, 2023.

Possible Approaches for identifying A6 Activities

- Not one specific approach for a country to identifying specific activities. There are two main approaches that countries will have to decide:

Top-down approach	Bottom-up approach
• Based on the Article 6 Strategy, the country further specifies what type of activities, sectors, gases, and for which time frame it will authorize Art. 6.2 activities. • There are several options for the identification of preferred sectors and technologies, including the use of positive lists and negative lists (do not approve). • This approach requires robust technical capabilities to specify the activity types, a thorough understanding of domestic and international market opportunities, and continuous stakeholder involvement.	• Leaves to mitigation activities developers (government agencies, ministries, private sector) and interested acquiring countries to approach the Government, who will decide on authorizations as proposals come in. • This approach could mean engaging in cooperative approaches based on interest expressed by domestic actors or an international partner. • In the most extreme case, the host country can choose to do nothing more than wait for requests for authorization of Article 6.2 activities and, at the point of the request, assess if and how mitigation outcomes can be created and transferred to the applying entity. • Work with project idea notes (PINs).

Cooperatives approaches under Article 6.2

Country-driven process

Indicative Mitigation Activity Cycle for Article 6.2

A6.2 Activity Cycle (Generic)

Design Mitigation Activity → Validate Mitigation Activity Design → Request ITMO Authorization → Implement/monitor mitigation activity → Verify emissions reductions → Request Issuance and transfer

Process Agreed among Cooperation Member Parties

Key Stakeholders within the Activity Cycle

- Project Proponent
- Auditor
- Government

A6.2 Governance Framework

1. ITMO Authorization
   - Evaluate and authorize ITMOs
2. ITMO Tracking
   - Facilitate ITMO transfer and record into registry
3. Reporting Requirements
   - Submit initial Report on Article 6 Engagement
   - Submit Annual Information to A6 Database
   - Submit required into in Biannual Transparency Report (BTR)
4. Application of CAs

Source: Illustration adapted from the Screening and Developing Article 6 Activities Guide, SPAR6C Project, GGGI, 2024.

1st ITMOs

SGS

MADD Validation Report
Project Reference: 5005036

VALIDATION REPORT

Energy Absolute Public Company Limited

Operation of e-buses on privately owned, scheduled public bus routes in the Bangkok Metropolitan area by Energy Absolute

(Short Name: Bangkok E-Bus)

Industries & Environment
SGS (Thailand) Limited
100 Nanglinchee Road, Chongnonsi, Yannawa,
Bangkok 10120
Thailand

Estimated Greenhouse Gas Reduction/Removal (tCO_2eq/year)	45,108

Carbon Credits Certification

Waiting Issued Cancelled

Year 2022 — Total 997 tCO_2eq

01 Oct 2022 - 31 Dec 2022 — 997 tCO_2eq — 0 tCO_2eq

Crediting Period: 01 Oct 2022 - 31 Dec 2022

Amount (tCO_2eq): 997

Issuance Date: 28 Nov 2023

type	total	Issued Date	serial number
Carbon Issued	997	28 Nov 2023	TH1-BCH-S0334-57-2022-16829924-16830920-1-0
Total	997		

Documents
- 2.T-VER-S-F012-MR TH 300666-POA2-Bangkok E-Bus Program Zone 3 _ 4.pdf
- 3. 2023 09 04 - FVR - Bangkok e-Bus Program Zone 3 and 4.pdf

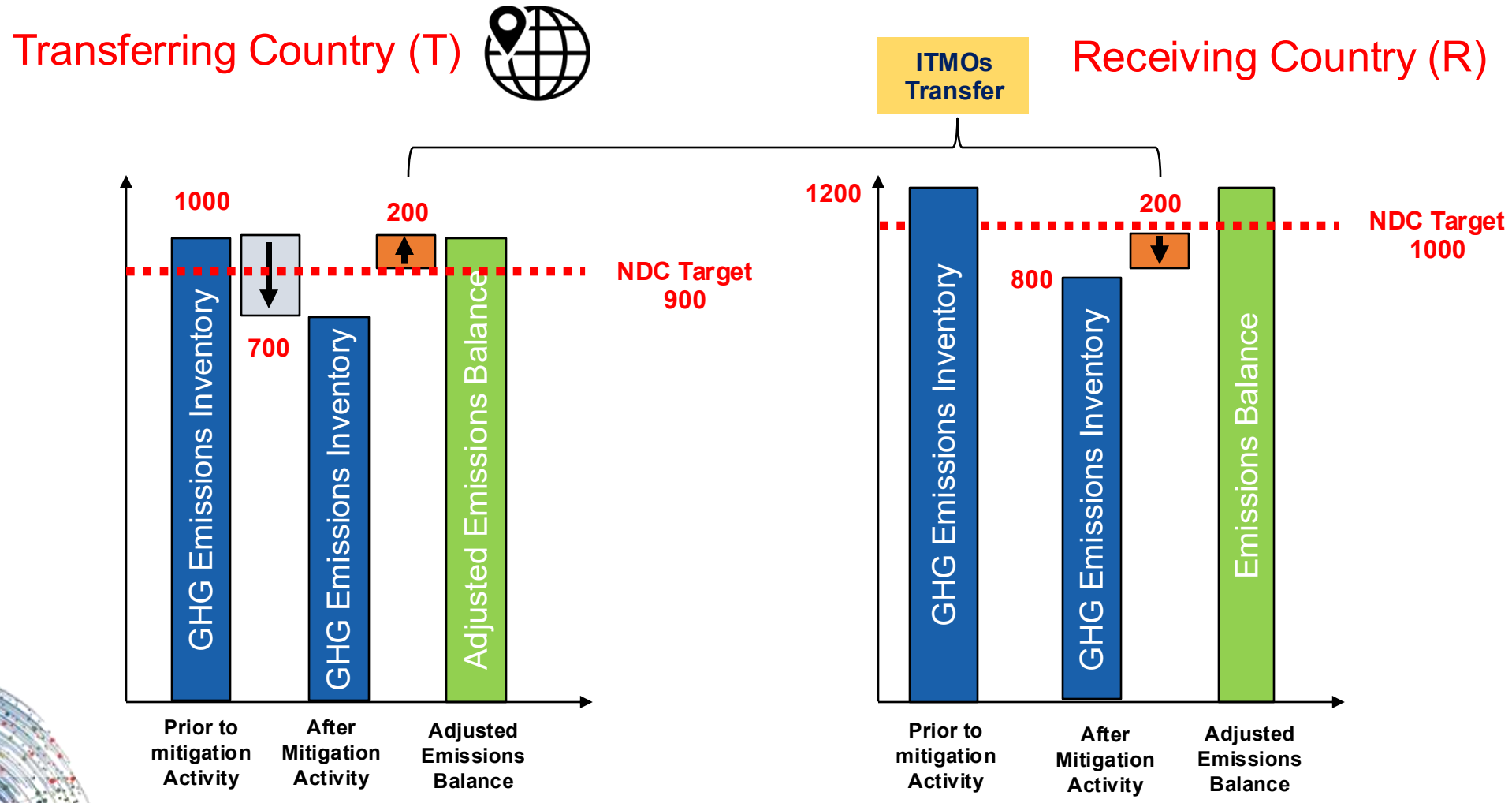
Cancellation Credit — 997 tCO_2eq

01 Dec 2023 — 997 (tCO_2eq)

Issued Carbon Credits (tCO_2eq)	997

Corresponding Adjustments

Corresponding Adjustments - countries' emissions levels, as reported when they track the progress towards achieving the NDC, should be adjusted to reflect the transfer (export) or receipt (import) of mitigation outcomes



Methods of Corresponding Adjustments (CAs)

NDC target type	For Single-year NDC (2 Methods)		For multi-year NDCs
	Trajectory or Budget	Average	Trajectory or Budget
Methods	Providing **an indicative multiyear emissions trajectory/ trajectories or carbon budget** that is consistent with NDC implementation.	Calculating **the average annual amount of ITMOs first transferred/used** over the NDC period (cumulative ITMOs divided by the number of elapsed years)	Calculating a multi-year emissions trajectory, trajectories, or budget for its NDC implementation period that is consistent with the NDC
CA Timing	Annually apply CAs for the total amount of **ITMOs first transferred/used each year**.	Apply indicative CAs equal to this average amount for each year and apply CAs equal to this average amount in the NDC year	Annually apply CAs for the total amount of **ITMOs first transferred/used** each year and cumulatively at the end of the NDC implementation period

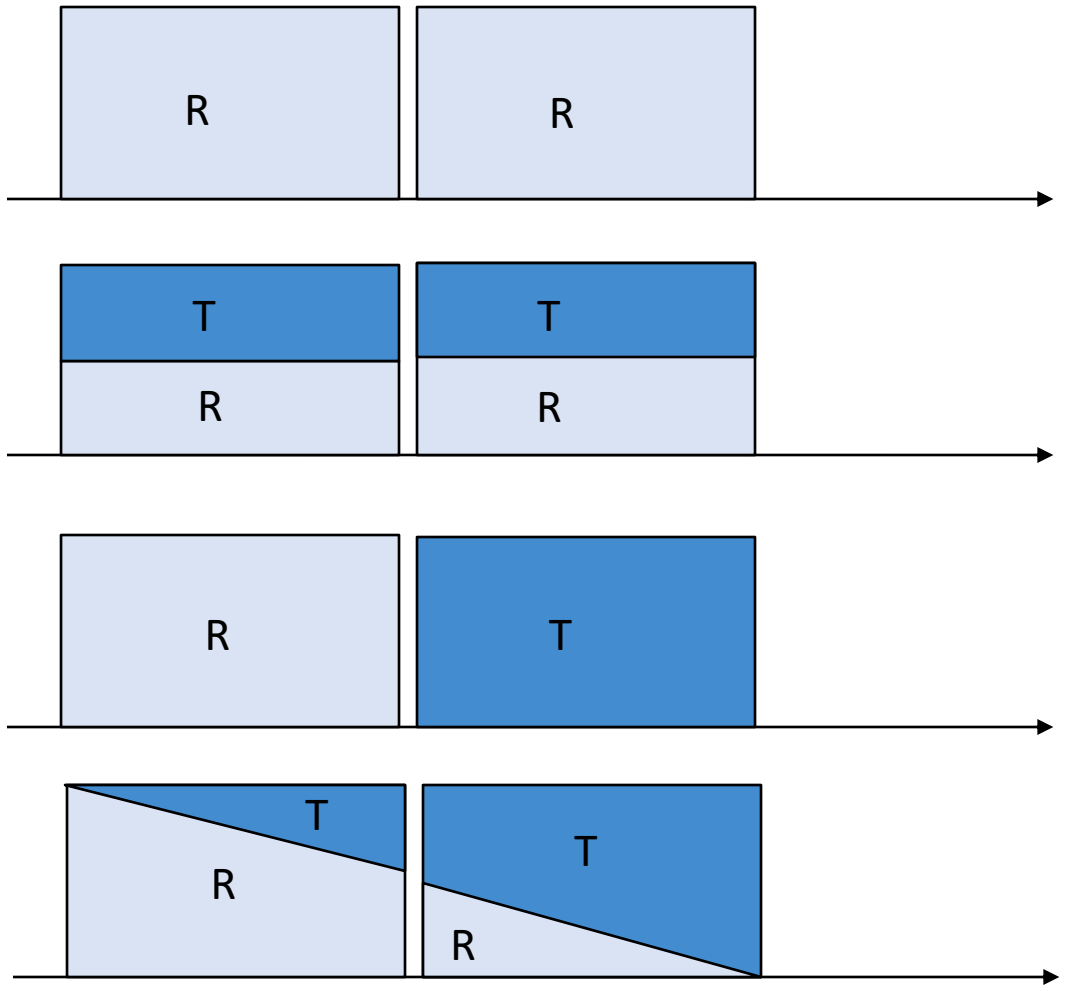
Models of Sharing of MOs

No sharing of mitigation outcomes

50%/50% sharing of mitigation outcomes

Only selling for a first crediting period (but the activity continues afterwards)

Gradual increase in non-sold ITMOs



R Receiving Party = buying Party

T Transferring Party = selling Party

Authorisations & Corresponding Adjustments

Filename	File Type	
Mitigation Activity Design Document (MADD) - Bangkok e-bus Program.pdf	PDF	
Letter of Authorization (LoA) - Bangkok e-bus Program.pdf	PDF	

https://registry.tgo.or.th/en/project/6425575ea2baee00b9fa09d5/preview

United Nations Climate Change

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Content

Process and meetings > The Paris Agreement > The Paris Agreement > Cooperative Implementation > CARP submission portal

Authorizations.

Party	Authorization type	Submission date	Version	Documents
Suriname	Letter of Authorization	29 May 2024	1.0	LoA Suriname
Guyana	Letter of Approval and Authorization	22 February 2024	1.0	Guyana – LOAA 2021

Annex 1. Letter of Authorization

Article 6.2 of the Paris Agreement
Letter of Authorization

Issued by Ministry of Spatial Planning and Environment of Suriname
Cooperative approach reference: SUR_IR_NDC_2021_2030_001.
Letter reference: SUR_LOA_NDC_2021_2030_001.

Letter of Authorization for
Verified Activities Under Article 5.2 for use under Article 6.2 of the Paris Agreement

TO: UNFCC Secretariat.

FROM: Suriname Designated National Authorizing Entity
Minister of Spatial Planning and Environment of Suriname
H.E Marciano Dasai PhD

With regard to the cooperative approach, verified activities under Article 5.2 of the Paris Agreement, and in the context of Paragraph 34 of the UAE Consensus on the GST[49], as further described in the documentation attached to this letter, we hereby acknowledge that these activities either reduce greenhouse gas emissions and/or remove carbon dioxide as accounted for on a national scale and will be included in Suriname's National Greenhouse Gas Inventory on a net basis. Suriname has issued, or intends to issue, ITMOs for these emission reductions and/or removals.

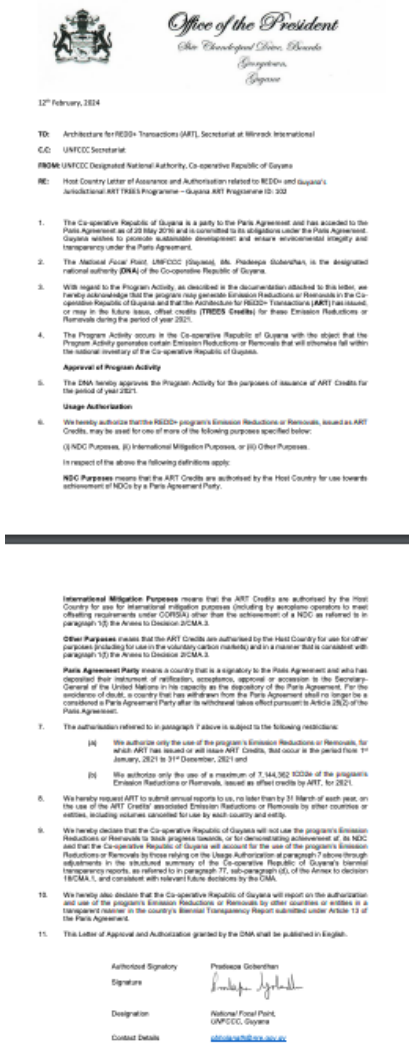
We hereby authorize that the GHG emission reductions and/or removals as verified under Article 5.2 and posted on the UNFCCC REDD+ Information Hub, where relevant, may be issued as ITMOs and used:

a) Towards a Nationally Determined Contribution (NDC) pursuant to Article 6, paragraph 3 of the Paris Agreement[50], or
b) For Other International Mitigation Purposes[51].

Under the hand and seal of the Authorizing Entity:
Suriname Designated National Authorizing Entity
Minister of Spatial Planning and Environment of
Suriname H.E. Dr. Marciano Dasai

[49] Draft decision -/CMA.5, Outcomes of the first Global Stocktake, paragraph 34.
[50] Decision 2/CMA.3, annex, paragraph 1(d).
[51] Decision 2/CMA.3, annex, paragraph 1(f).

33


Office of the President

First Transfer and Use of ITMOs

Actions

Authorization

"First transfer"

Uses

Use towards an **NDC**

The first international transfer of Mitigation Outcomes

or/and

Use for **"Other international mitigation purposes" (OIMPs)**

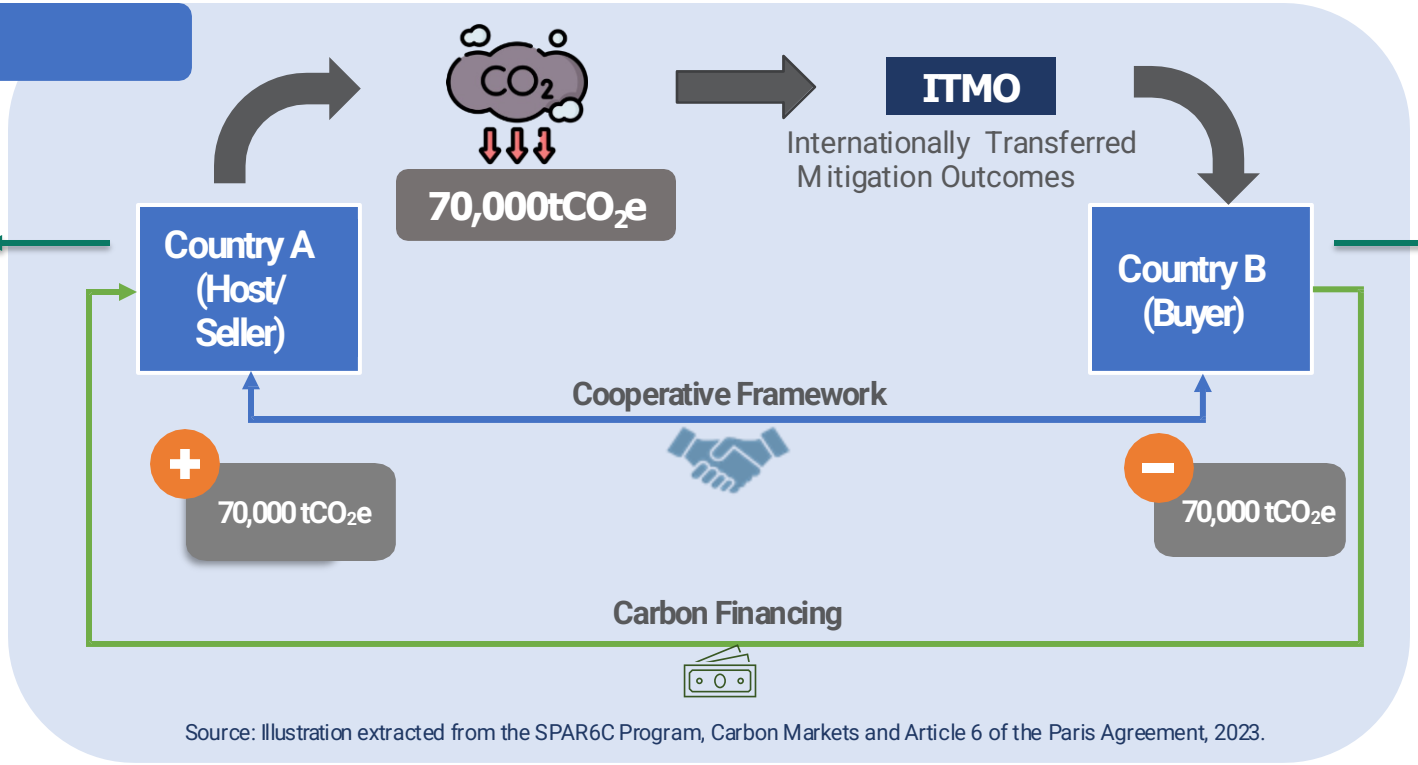
- Use for international mitigation purpose other than NDC
- Use for other purposes as determined by the first transferring participating party

1)The authorization,
2) the issuance or the use,
3) or cancellation,
as specified by the Participating Parties.

Fundamentals of a trade under Article 6

Example Article 6 Transaction

- Potential emission reduction activities,
- **but lacks technology, finance,** etc.



Source: Illustration extracted from the SPAR6C Program, Carbon Markets and Article 6 of the Paris Agreement, 2023.

- Ambitious mitigation targets
- More cost-efficient in some cases.

Article 6 is designed to provide flexibility & identify cost-effective mitigation actions

Cooperation under Article 6.2

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Cooperative approach ID	Cooperative approach name	Participating Party or Parties	(Updated) initial reports
CA0001	Article 6.4 mechanism	Parties to the Paris Agreement	NA
CA0002	Promotion of climate smart agriculture practices for sustainable rice cultivation in Ghana	Ghana, Switzerland	Ghana, Switzerland
CA0003	Operation of e-buses on privately owned, scheduled public bus routes in the Bangkok Metropolitan area by Energy Absolute / Implementing Agreement to the Paris Agreement between the Kingdom of Thailand and the Swiss Confederation	Switzerland, Thailand	Switzerland, Thailand
CA0004	Electrification of Vanuatu's Inhabited Islands through Solar Power ITMO Programme	Switzerland, Vanuatu	Switzerland, Vanuatu
CA0005	Emissions Reductions from Sustainable Management of Forests	Guyana	Guyana
CA0006	ITMOs resulting from Paris Agreement Article 5.2: reducing emissions from deforestation and forest degradation, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks.	Suriname	Suriname

Cooperative Agreement

COOPERATIVE AGREEMENT BETWEEN SWITZERLAND & GEORGIA

MAIN and MADD

Mitigation Activity Idea Note (MAIN)

Activity developer has the option to use this template to prepare MAIN for the mitigation activity seek generate ITMOs and submit to the Carbon Market Office to determine its alignment with Ghana's NDC and SDG. Where possible, the complete MAIN may be submitted together with the request for the LOI. MAIN must briefly explain the proposed mitigation activity, alignment with NDC and sector policies, the rationale for generating the ITMOs, and monitoring plan, governance arrangements, contribution to sustainable development and financial requirements.

Mitigation Activity Idea Note Template

1. Summary of proposed mitigation activity	
2. Background	
2.1 Title of proposed mitigation activity (include MID if applicable)	
2.2 Introduction	
2.3 Objectives	
2.3 Description of Mitigation Activity	
3. Linkage with Ghana's NDC and relevant sector policies	
4. Technology and GHG rationale	
5. Technical/Financial Additionality Statement	
6. Contribution to Sustainable Development	
7. MRV Plan	
8. Governance Arrangement	
9. Financial Requirements	
10. Workplan	
Submitted by: Developers Name: Date: Signature:	

https://gcr.epa.gov.gh/wp-content/uploads/2023/12/MAIN-Template.pdf

MADD for the "Bangkok e-bus Program"

1 Activity Overview

1.1 Basic information and Summary

Table 1: Basic information of MADD for the "Bangkok e-bus Program"

Transferring Country	Thailand
Mitigation Activity Name	Short: "Bangkok e-bus Program" Long: "Operation of e-buses on privately owned, scheduled public bus routes in the Bangkok Metropolitan area by Energy Absolute"
Programme Owner (Proponent)	For the Bangkok e-bus Program, there is the project activity operator and the program management and coordinating entity (collectively known as the Proponent), described as follow. **Project Activity Operator**[1] Energy Absolute Public Company Ltd 16th floor, AIA Capital Center Building 89 Ratchadaphisek Road, Dindaeng Bangkok 10400 Mr. Norasak Suphakorntanakit, Assistant Vice President, Strategy Development and Investment Planning Department, tel: +66(0)2 248-2488-92 (ext. 19518), email: norasak.sup@energyabsolute.co.th **Program Management and Coordinating Entity** Carbon Coordinating Managing Entity (Co) Ltd, Thailand (100% owned by South Pole Group) Unit 3A, Evergreen Place, 318 Phaya Thai Rd, Khwaeng Thanon Phetchaburi, Ratchathewi, Bangkok 10400 Mr. Renat Heuberger, Chief Executive Officer tel: +66 (0)2 219 3791; email: registries@southpole.com
Sector	Public transport (E-mobility)
Geographical boundaries	The geographical boundaries of the proposed activity are the Thailand, Bangkok Metropolitan Region (for project activities), and the national boundaries of Thailand
Type of Gases	Carbon dioxide (CO_2) (no other gases)
Summary	• This Activity will replace the use of conventional (diesel & natural gas) buses with e-buses on a minimum number of 122 (existing and new) privately operated bus routes that provide a regular, scheduled service within the Bangkok Metropolitan area. (Refer to Annex 1 for further details.) • In addition to reducing GHG emissions, the project will improve service quality, reduce commuting times, local air and noise pollution while maintaining bus ticket prices. • Swiss carbon finance from the purchase of up to 500,000 mitigation outcome units that are authorised for International Transferred Mitigation Outcomes (ITMO) within Thailand's first NDC period (including 2030 vintage) shall be used to levelise the total cost of ownership differential between baseline buses and the project e-buses.

[1] Entity that claims the (i) right to request the creation and transfer of ITMOs and (ii) legal right on the mitigation outcomes.

MADD - Bangkok e-bus Program Page: 1

Mitigation Action Design Document

https://registry.tgo.or.th/en/project/6425575ea2baee00b9fa09d5/preview

Day 1 Agenda

Session	Time	Title
	08:00 - 08:30	Registration
	08:30 - 09:00	Welcome and Introduction
1	09:00 - 10:00	Introduction to Article 6: Cooperative Approaches
2	10:00 - 10:45	Managing Risks & Unlocking Opportunities in Article 6 for NDC Implementation
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5	01:30 - 02:30	Country context Operationalizing Article 6.2 in Papua New Guinea
6	02:30 - 03:00	Embedding Workshop Learnings into National Strategies
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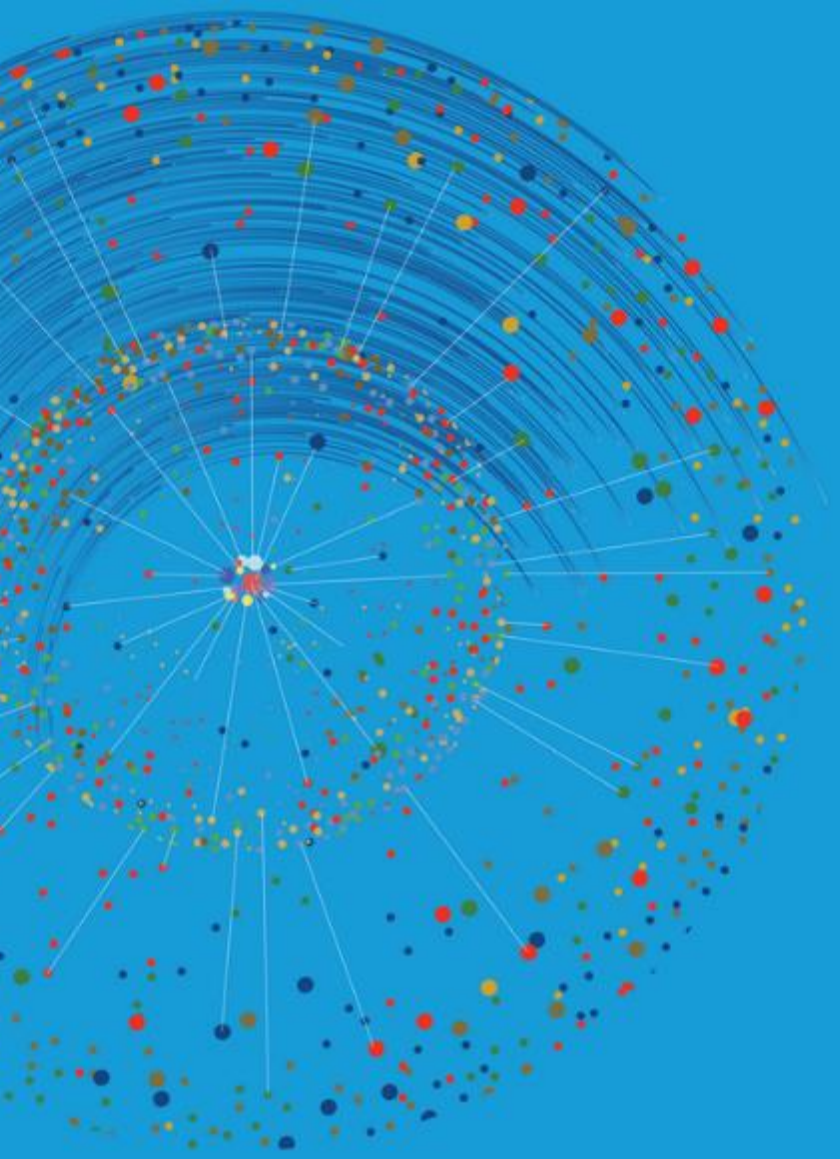
7	03:15 - 04:00	Expert Clinic: Addressing Key Concerns
	04:00 - 04:15	Closing Session



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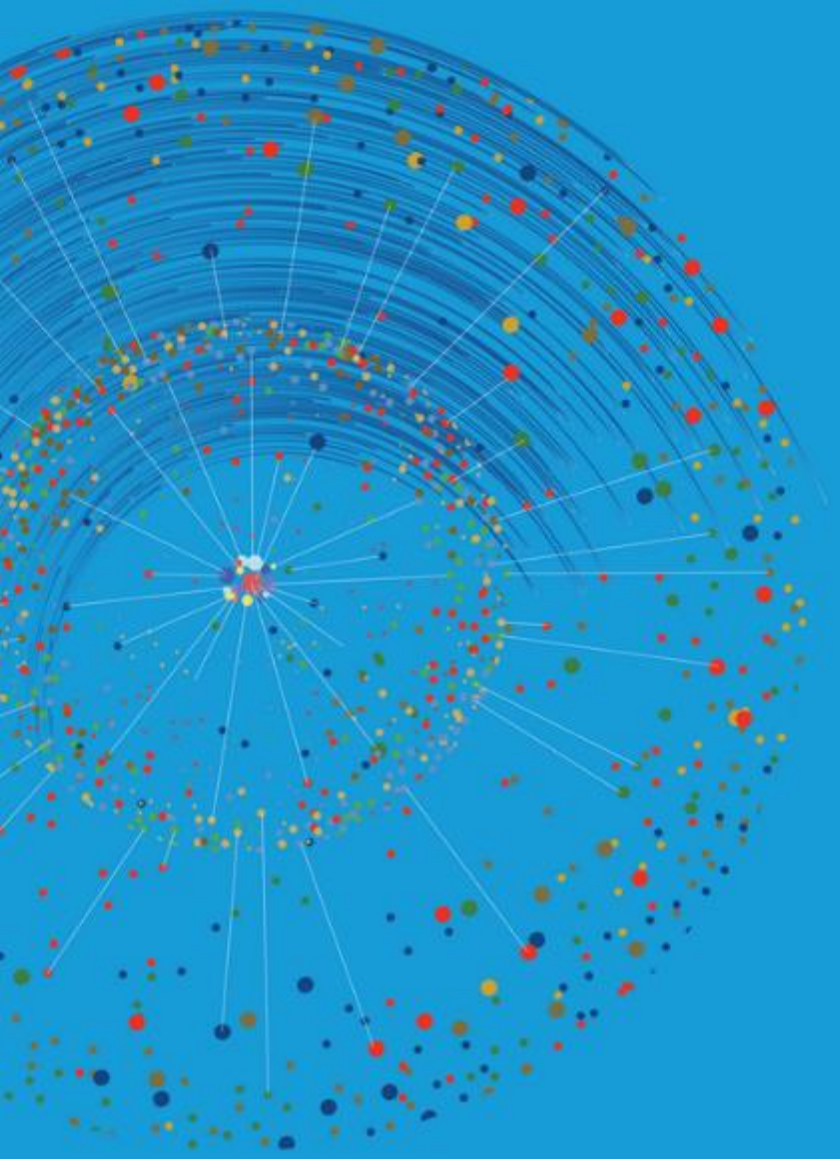
CLIMATE CHANGE & DEVELOPMENT AUTHORITY

NDC PARTNERSHIP

Open Discussion

Session 5



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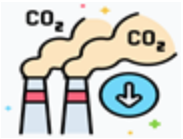
Understanding Article 6.4 Framework, Governance & Implementation

What is the Article 6.4 mechanism?

The new centralized UNFCCC baseline-and-credits mechanism (replacing CDM/JI)
2nd Generation CDM

''A mechanism to contribute to the **mitigation of greenhouse gas emissions** and **support sustainable development** is hereby established under the authority and guidance of the CMA for use by Parties on a voluntary basis''
''It shall be **supervised by a body** designated by the CMA…''

UNFCCC view point mechanism shall aim to:



Promote the **mitigation** of GHG emissions while fostering **sustainable development**

Contribute to the **reduction of emission levels in the host Party**, which will benefit from mitigation activities resulting in **emission reductions that can also be used by another Party to fulfil its NDC**

Incentivize and facilitate **participation in the mitigation of GHG by public and private entities** authorized by a Party

To deliver an **overall mitigation in global emissions**

Article 6.4 PRINCIPLES

Registered activities, can be a hosted by ANY Party and the range of activities is broader, issued Article 6.4 emission reductions (A6.4ERs), come in two types:

- **Authorized emission reductions** (AERs):
  - A6.4ERs that have received an authorizatio[illegible]aph 42 of the Rules, modalities and procedures of the mechanism
  - These **are ITMOs** and will require **co[illegible]ponding adjustment**

Authorized

- **Mitigation contribution units** (MCUs): (Netzero Approach[illegible] Corporates)
  - These **are NOT ITMOs** the mitigation achieve[illegible]st Party to achieve its NDC or development goals
  - Can be used for, **inter alia**, results[illegible]nate finance domestic carbon pricing schemes, or domestic price-based measures, for the purp[illegible] of contributing to the reduction of emission levels in the host Party

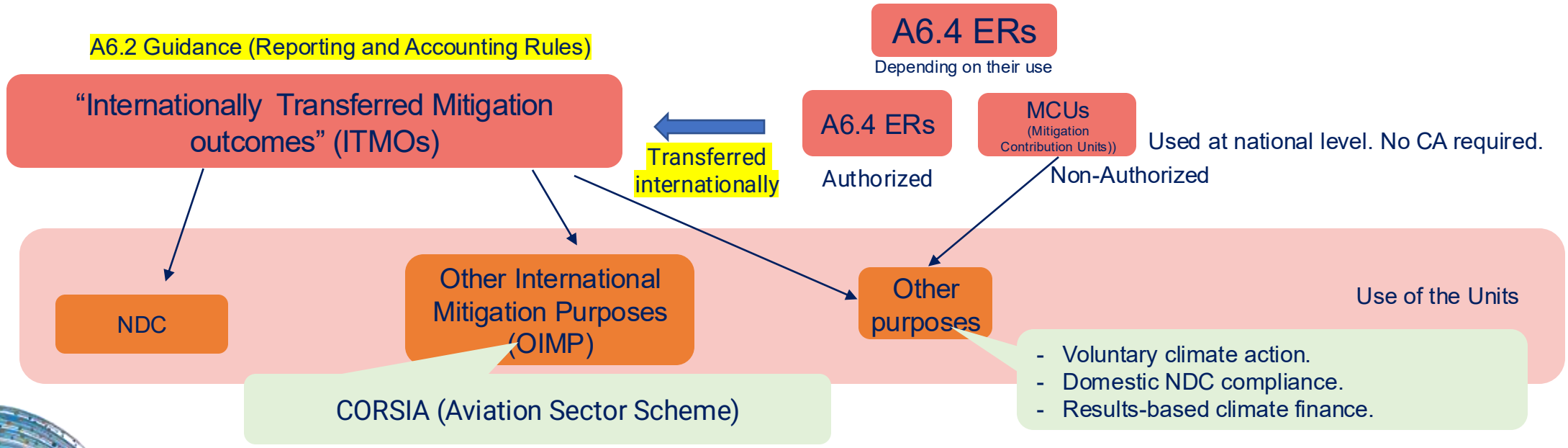
Non-Authorized

Understanding Cooperation under Article 6.4

The new Paris Agreement Crediting Mechanism

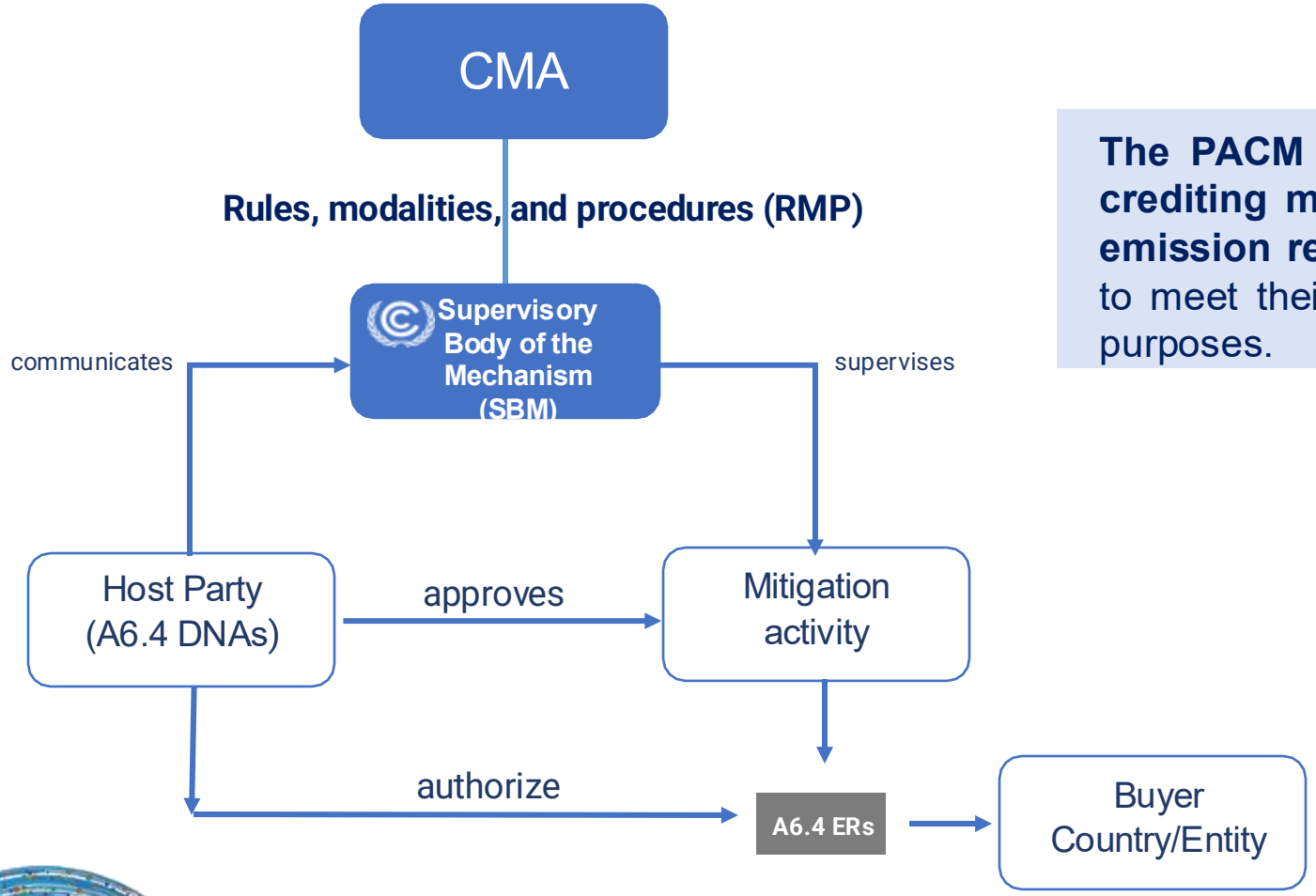
"**It will be overseen by a body designated by the CMA** and established within the Secretariat of the UN Climate Change."

The mitigation outcomes of proposed activities will be accredited under units known as Article 6.4 Emission Reductions (A6.4ERs)



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 – Host Countries Participation

Host Country 1

A. Positive List

B. Mechanism Art 6.4

Emission Reductions

Article 6.2

Bilateral Cooperation between Countries

Host Country 1

Host Country 2

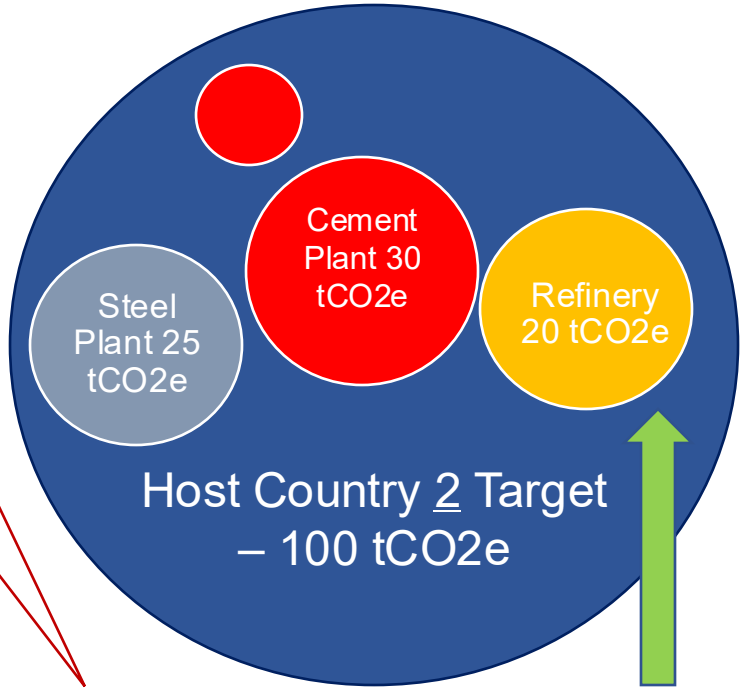
Sectoral Level

$ / Tech Support

ITMOs

UNFCCC

MCUs (Mitigation Contribution Units)



NO

Authorized by HP

Yes

ITMOs

Role of MCUs in supporting host countries & Corporates

- MCUs can be used for various purposes, **including voluntary corporate action**, for the purpose of contributing to the reduction of emission levels in the host Party.
  - e.g. **voluntary climate action**, results-based climate finance, domestic mitigation pricing schemes, or domestic price-based measures.
- MCUs paves the way for corporate to **make a climate contribution** and **unlock financial and technical support for the Global South**.
  - MCUs are generated from registered mitigation activities hosted by any Party, enabling the transfer of essential climate technology and funding.
  - The mitigation achieved assists the host Party in achieving its NDC and sustainable development goals by curbing its GHG emissions.
- Corporates by **purchasing and cancelling MCUs** can make
  - A claim of contributing to technology transfer, investment, and bending the global emissions curve; and
  - The estimated ‘internal carbon prices’ tangible, while delivering on the needed climate finance.

Overview of Article 6.4 Activity Cycle

01 Project Conceptualization

Activity Participant (Project Proponent)

02 Project Prior Consideration

Activity Participant to communicate to UNFCCC Secretariat

UNFCCC Website

No Later than 180 days after the start date of the project

03 PDD Development

A6.4 M - PDD - Form

04 Submission of PDD for Global Stakeholder Consultation

Activity Participant to communicate the PDD to UNFCCC Secretariat

UNFCCC Website

No Later than 180 days after the start date of the project

05 Global Stakeholder Consultation

UNFCCC publishes the PDD

UNFCCC Website

28 Days

06 Host Party Approval

UNFCCC to inform the host party

90 Days from the start date of step 4

07 MoC Preparation

Activity Participant to communicate

08 Project Validation

Activity Participant to hire DOE for project validation

09 Submission of Project for Registration

DOE submit, MoC Preparation + Project Validation + other relevant docs

UNFCCC Website

Payment of fees in one year from of the issuance of the statement of registration fee

10 Completeness Check

11 Substantive Check

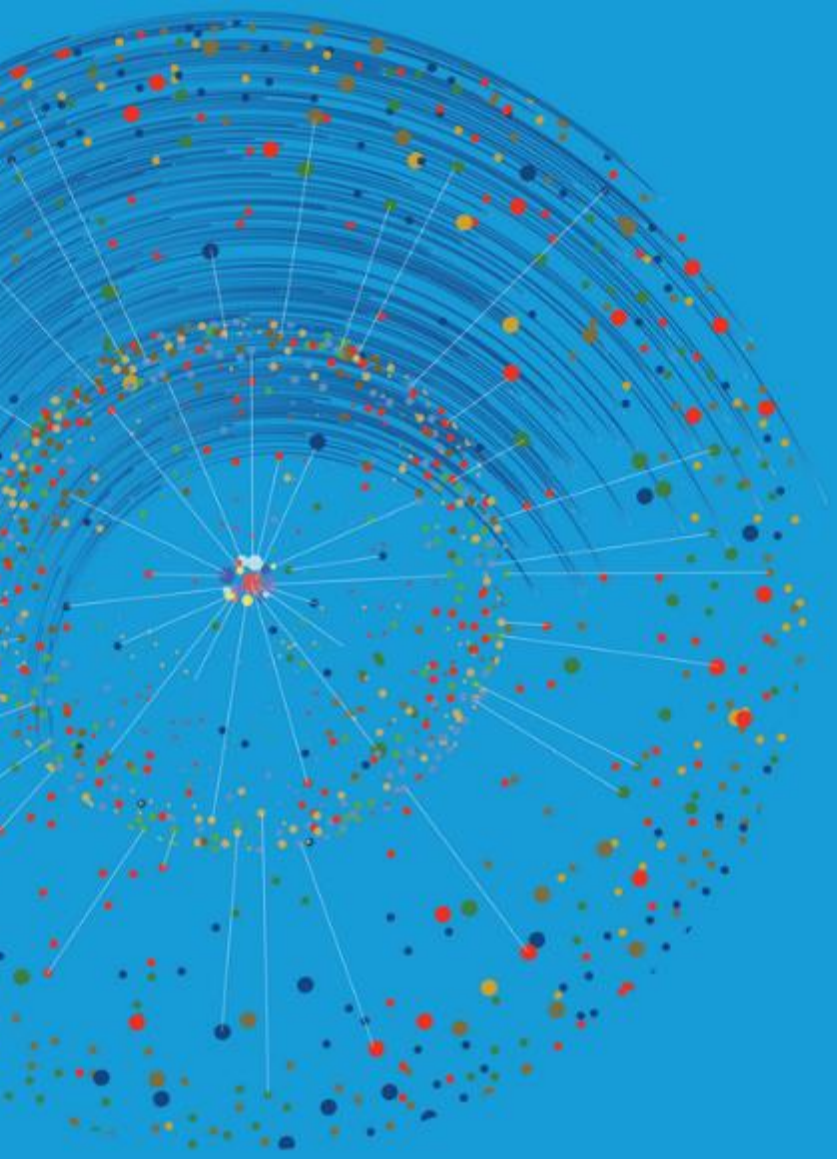
21 Days

12 Request for Registration

SB Approves the project

28 Days

13 Registration of the Project



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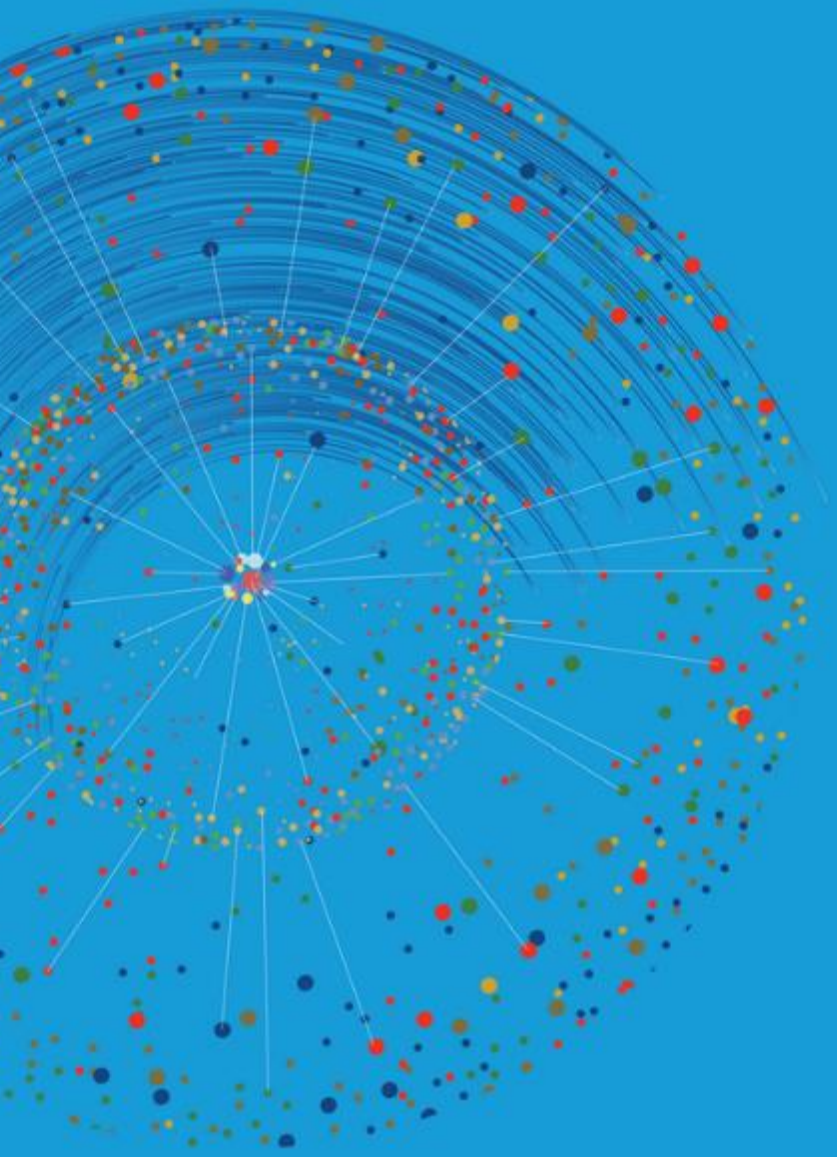
NDC PARTNERSHIP

Open Discussion



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Collaboration for Climate Action

CLIMATE CHANGE & DEVELOPMENT AUTHORITY

NDC PARTNERSHIP

Lunch

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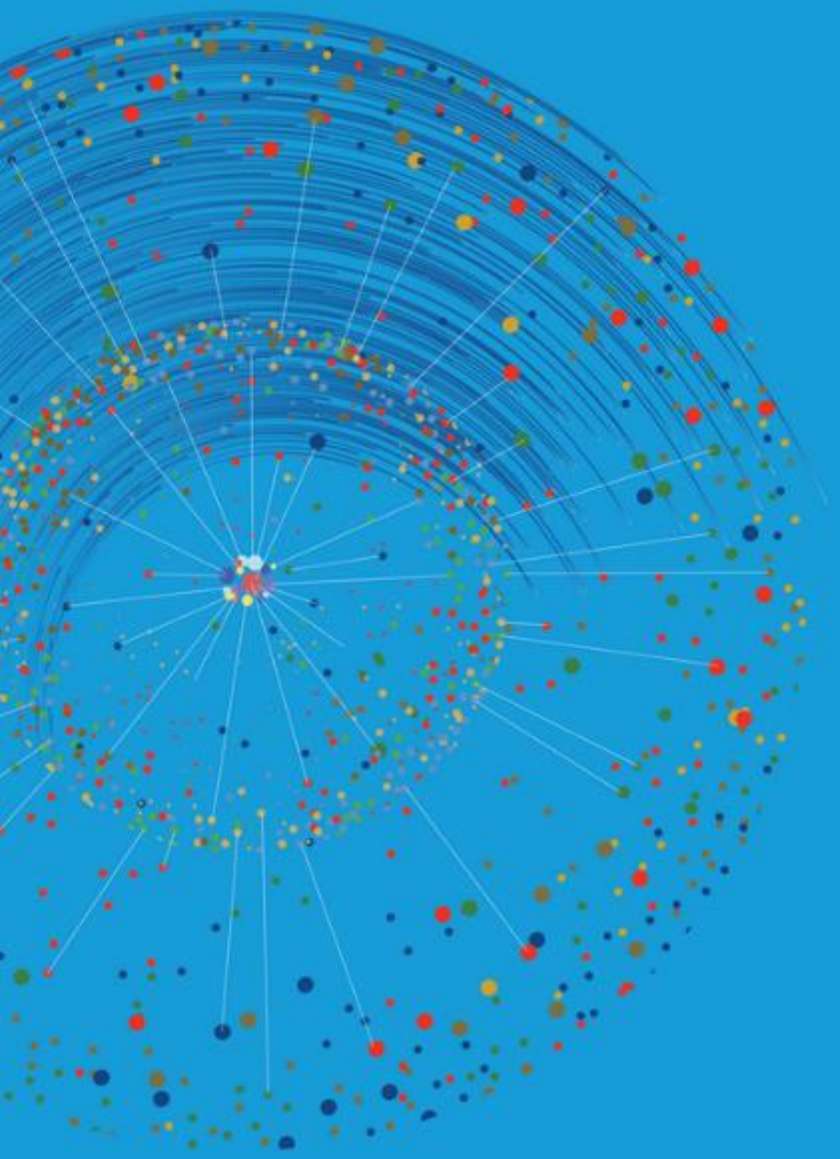
Session 5



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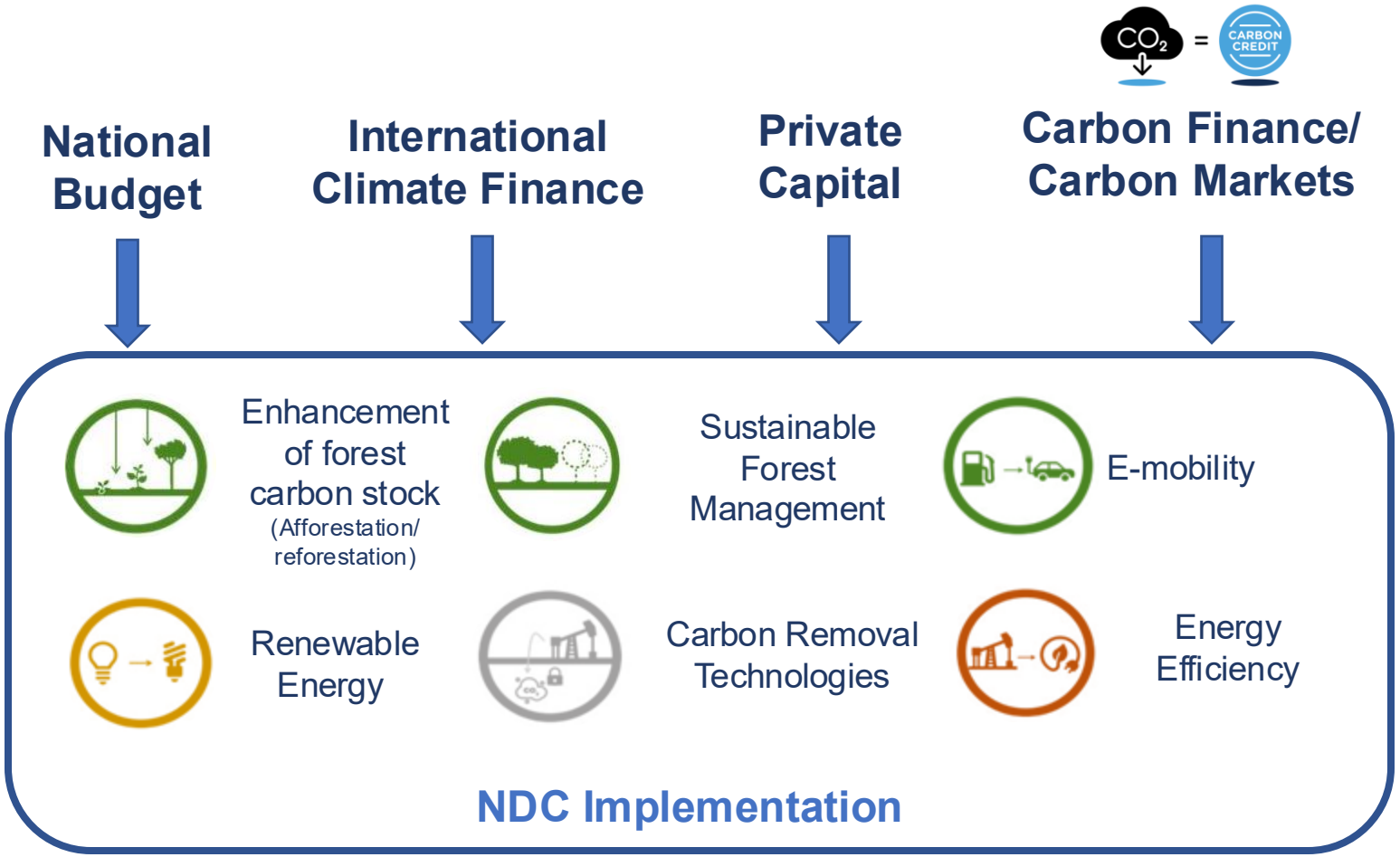
NDC PARTNERSHIP

Country context

Operationalizing Article 6.2 & 6.4 in Papua New Guinea

Carbon Markets vs NDC Implementation

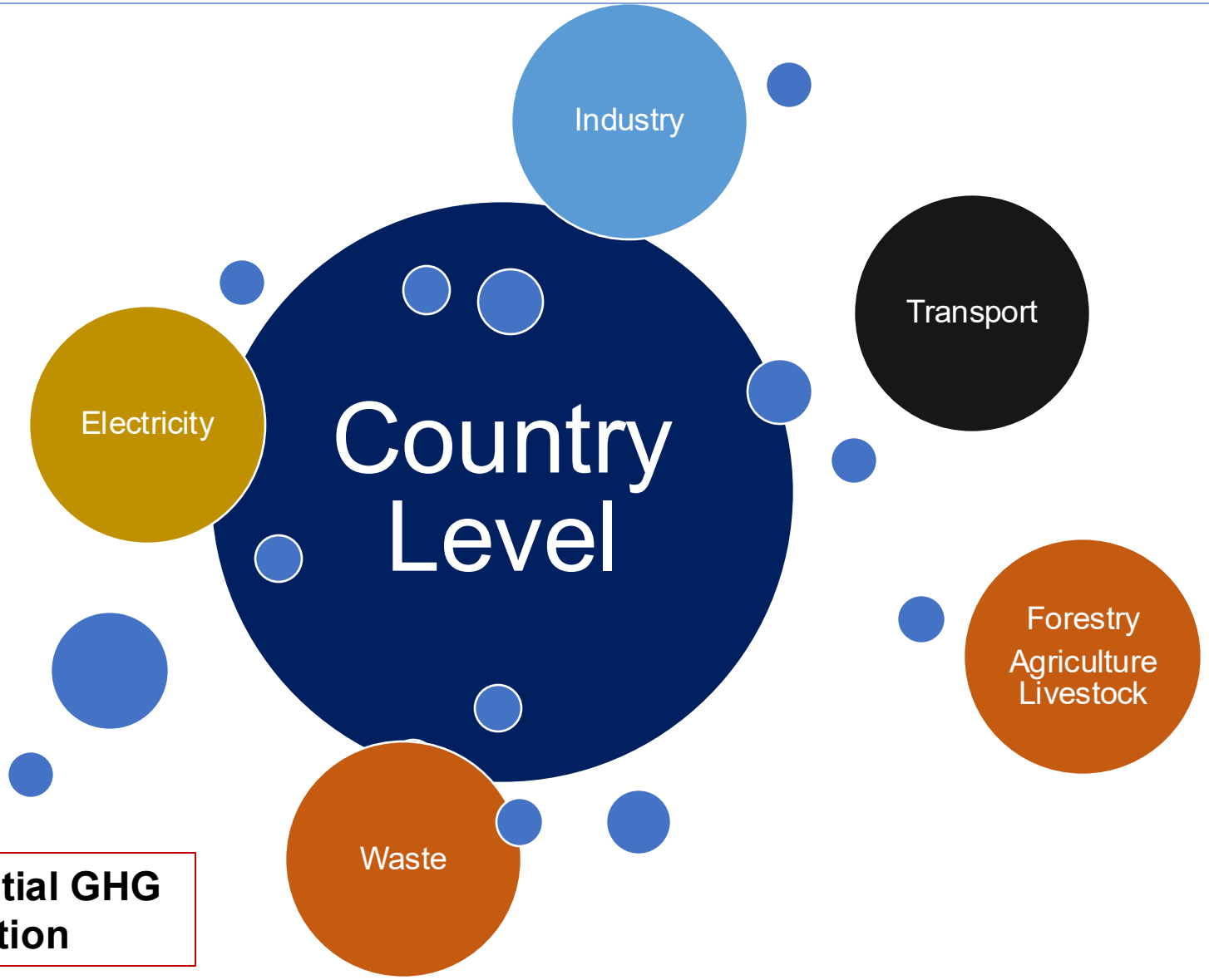


NDC Targets

contributions outlined in this NDC are **all conditional**

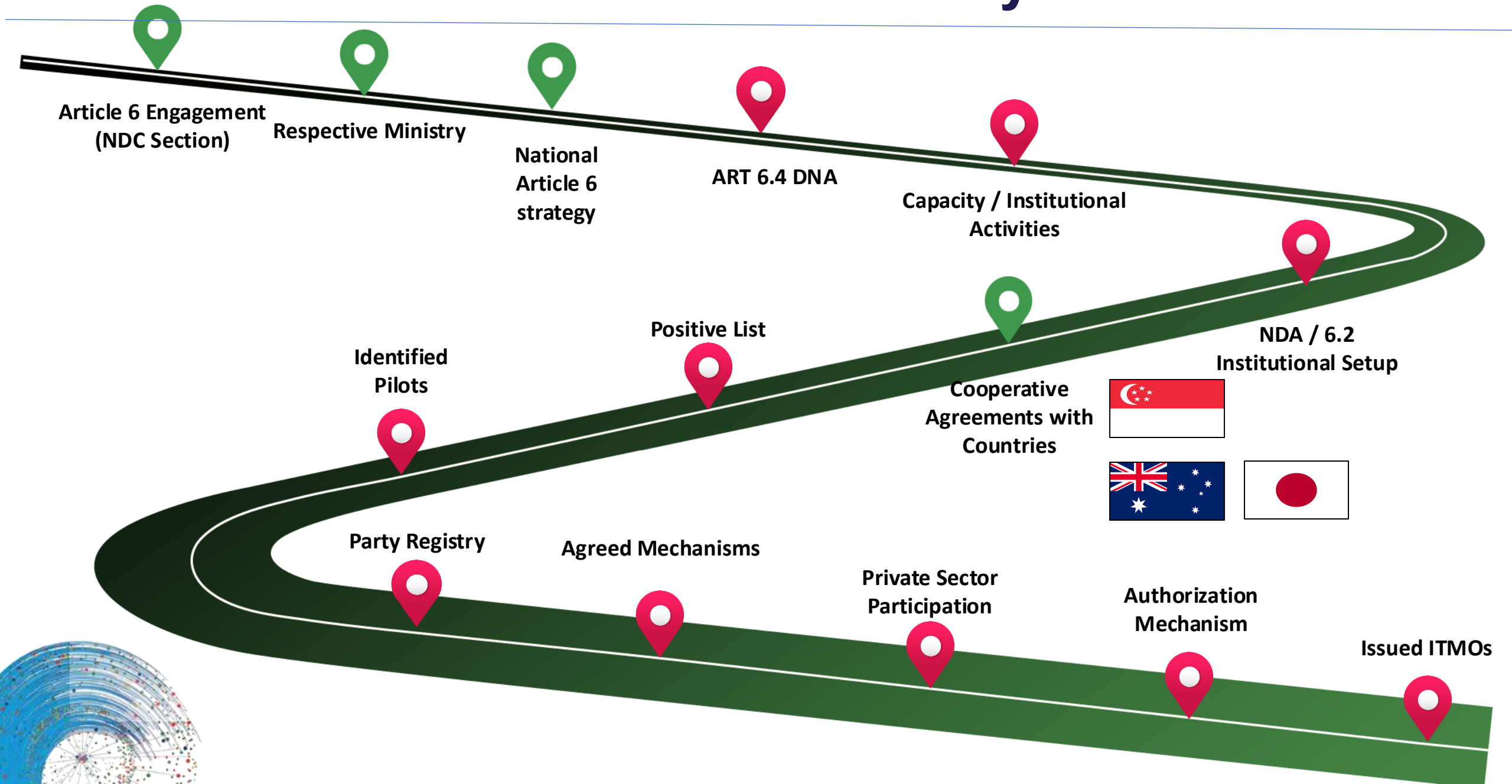
Main contributions include

- REDD+ initiatives under the AFOLU sector
- 100% renewable energy target by 2030
- energy efficiency improvements across all appliances in the energy sector

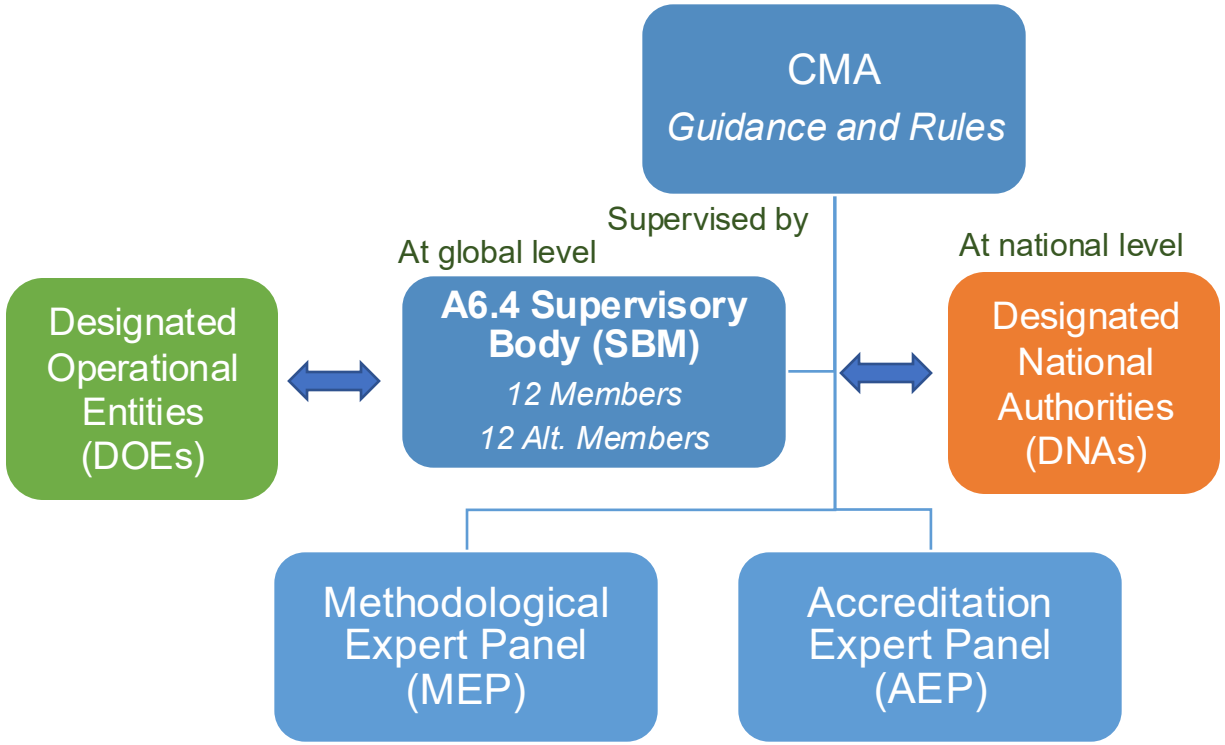


High Potential GHG Mitigation

PNG Art 6 – Journey



Governance Structure of the PACM



Source: Information extracted from https://unfccc.int/process-and-meetings/the-paris-agreement/article-64-mechanism

Source: Image extracted from https://evetamme.com/2023/05/21/challenges-for-carbon-removal-under-the-un-standard/

Institutional Functions in A6.4 Engagement

Article 6.4 DNA - Designation of National Authorities

Art 6.4 DNA mandatory by Host Party to participate (PNG – Yet to Nominate)

The prioritization of preferred Art 6.4 activities may conclude on a defined strategy that ensures activities go beyond NDC targets and may respond to:

- Which sectors will be targeted?
- Which types of activities are preferable in these sectors?
- Evaluate the potential of quantification of the Mitigation measures => engage in easy measurable activities
- Evaluate the cost/effort to distribute Mitigation Outcomes use:

  e.g. High cost/effort => ITMOs / Low cost/effort => NDC

DNAs – Host Party : Responsibilities (“shall”)

Preparation of Host Party participation requirements for Article 6.4 mechanism (A6.4-FORM-GOV-001)

HOST PARTY PARTICIPATION REQUIREMENTS FOR ARTICLE 6.4 MECHANISM (Version 01.0)

SECTION 1: GENERAL INFORMATION	
Country:	
Institution name:	
Institution address:	
Representative of the institution:	
E-mail address of the representative:	
Phone number of the representative:	
ADDITIONAL REPRESENTATIVE (OPTIONAL)	
Additional representative of the institution:	
E-mail address of the additional representative:	
Phone number of the additional representative:	
SECTION 2: PARTICIPATION RESPONSIBILITIES	
Is your country a Party to the Paris Agreement?	☐ Yes ☐ No
Has your country prepared, communicated, and is it maintaining a Nationally Determined Contribution (NDC) in accordance with Article 4, paragraph 2 of the Paris Agreement?	☐ Yes ☐ No
Has your country designated a Designated National Authority (DNA) for the Article 6.4 mechanism and communicated that designation to the UNFCCC secretariat?	☐ Yes ☐ No

A6.4-FORM-GOV-001

Please describe how your country's participation in the Article 6.4 mechanism contributes to sustainable development, while acknowledging that the consideration of sustainable development is a national prerogative.
Please provide detailed information on the types of activities under Article 6, paragraph 4 (A6.4 activities) that your country would consider approving pursuant to chapter V.C (Approval and Authorization) of the Rules, Modalities and Procedures (RMPs). Additionally, explain how these activities, and any associated emission reductions or removals, would contribute to the achievement of your country's NDC, if applicable, its long-term low GHG emission development strategy, if it has submitted one, and the long-term goals of the Paris Agreement?
Please provide any additional information that the host Party may deem necessary.

- - - - -

Document information

Version	*Date*	*Description*
01.0	25 March 2024	Published with revised symbol number (previously A6.4-FORM-AC-001).

Decision Class: Regulatory
Document Type: Form
Business Function: A6.4 activity cycle, Governance
Keywords: A6.4 mechanism, A6.4 projects, project implementation

https://unfccc.int/sites/default/files/resource/A6.4_Form_AC_001_Morocco.pdf

Positive List

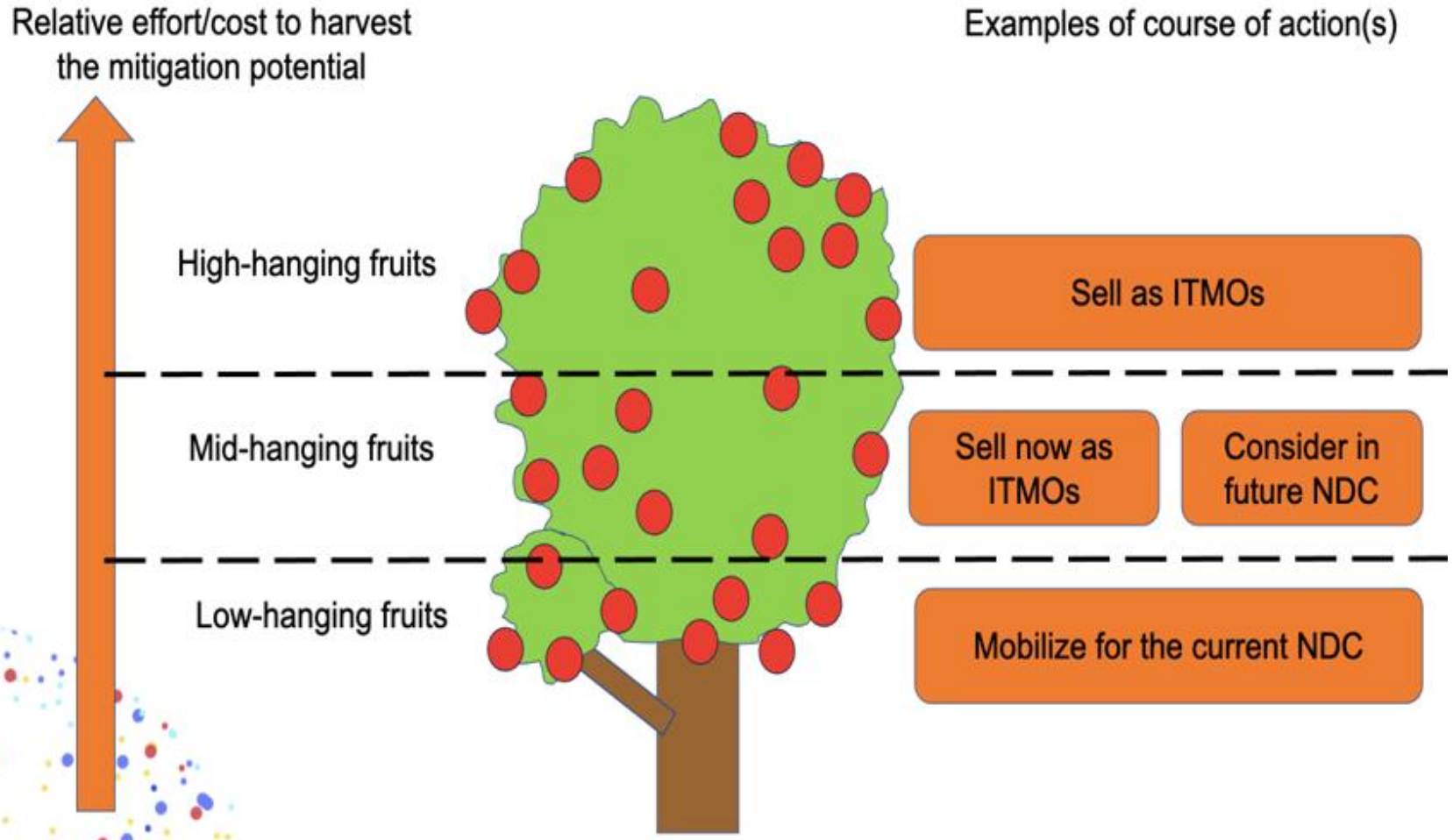
- Country to create a **“positive list” of mitigation options**, specific to the **conditional NDCs** implementation plan and fast track any requests for authorization or transfer of MOs from those project types, technologies

- Positive list aimed to spur investments identified as being in need of support for long-term goals

- Positive list catalyze market development and provide clear signals to project developers and investors

- In simple terms projects / mitigation activities which are allowed to export emissions reductions outside

Positive List Development



- MACC
- BAT
- Additionality Aspects
- Technology Needs

Positive List…

Posted On: 17 FEB 2023 5:50PM by PIB Delhi

India has notified the National Designated Authority for the Implementation of the Paris Agreement (NDAIAPA) vide Gazetted Notification dated 30.05.2022 The Authority is mandated *inter-alia* to take decisions in regard to the type of projects that may take part in international carbon market under Article 6 mechanisms.

This is in the backdrop of the Paris Agreement Rulebook being finalized in respect of Article 6 which focuses on carbon trading through bilateral/cooperative approaches and international market mechanisms. India has taken steps mandated on the Host Party/Country.

Following list of activities has been finalized to be considered for trading of carbon credits under bilateral/ cooperative approaches under Article 6.2 mechanism.

I.GHG Mitigation Activities:

1. Renewable energy with storage (only stored component)
2. Solar thermal power
3. Off- shore wind
4. Green Hydrogen
5. Compressed bio-gas
6. Emerging mobility solutions like fuel cells
7. High end technology for energy efficiency
8. Sustainable Aviation Fuel
9. Best available technologies for process improvement in hard to abate sectors
10. Tidal energy, Ocean Thermal Energy, Ocean Salt Gradient Energy, Ocean Wave Energy and Ocean Current Energy
11. High Voltage Direct Current Transmission in conjunction with the renewal energy projects

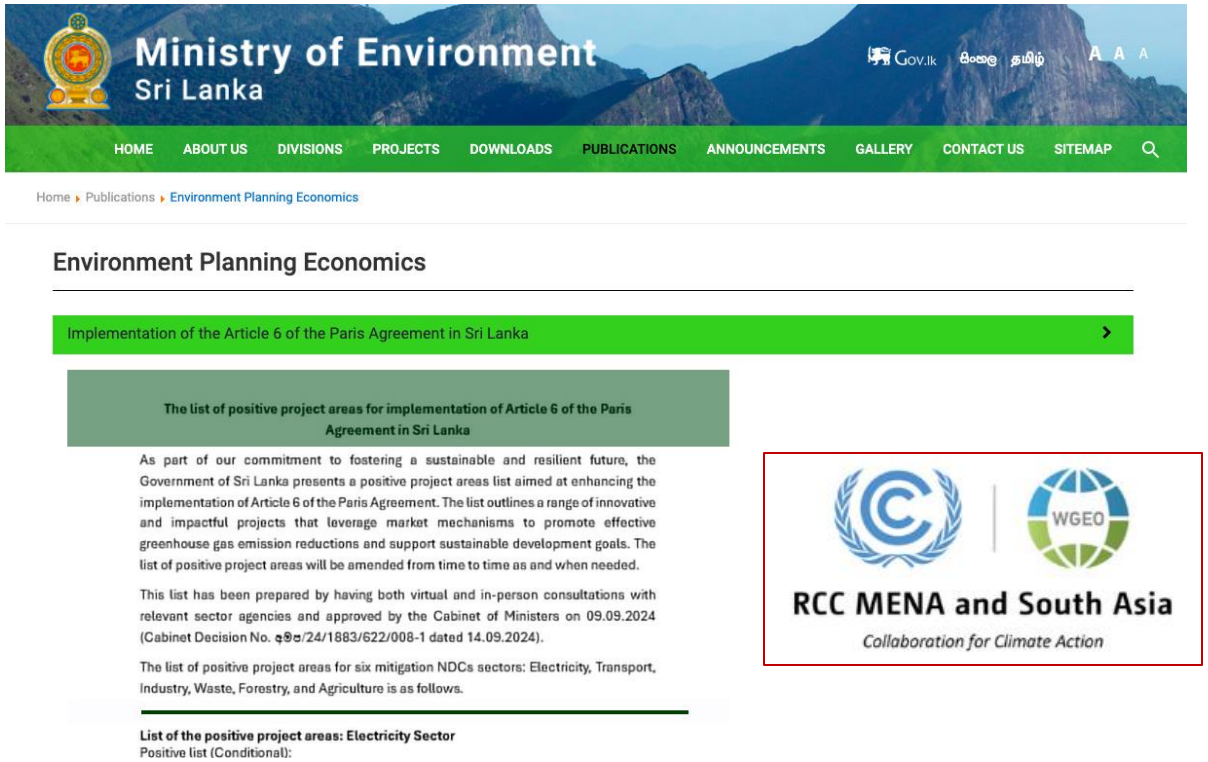
II.Alternate Materials:

12. Green Ammonia

III.Removal Activities:

13. Carbon Capture Utilization and Storage

These activities will facilitate adoption/transfer of emerging technologies and may be used to mobilise international finance in India. The activities will initially be for first 03 years and may be updated/revised by NADAIPA.



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Step wise Process - Positive List Development

Step	Approach
1	NDC Review
2	Differentiation between conditional and ~~unconditional~~ NDC
3	Sectoral Mapping of Policies - Conditional NDC
4	Sectoral Mapping of Targets w.r.t Policies
5	Target Identification - Sub divisional classification of **Targets to Mitigation activities**
6	Mapping the Mitigation Activity penetration with proposed targets
7	Computation of Emission Reduction Potential vs Financing

Data to be analysed

List of Mitigation Outcomes - Development of Long List of Actions

Information prioritised based on goals specific to

- Short Term (2030)
- Mid Term (2030 to 2040)
- Long Term (2040 and onwards)

Step wise Process - Positive List Development

01

ASSESSMENT
inventory all GHG emissions, as mentioned in NDC vs Sectors

02

TARGET Classification
Conditional vs Unconditional

03

Review of NDC Implementation Plan
+
Sectoral Policies Short, Mid and Long Term

04

Sectoral Stakeholder Consultation

1. Conditional vs Unconditional
2. Responsible Focal Points

05

Development of Long List

Possible Mitigation Outcomes – Sectoral Level

06

Interplay between Conditional vs Un conditional

* Level of Export Quantity (%of CA)

07

High Level Discussions

Sectoral Ministerial Meeting / Discussions

08

Cabinet Presentation

09

Cabinet Approval

10

Positive List publishing in Public Domain

Step	Approach
1	NDC Review
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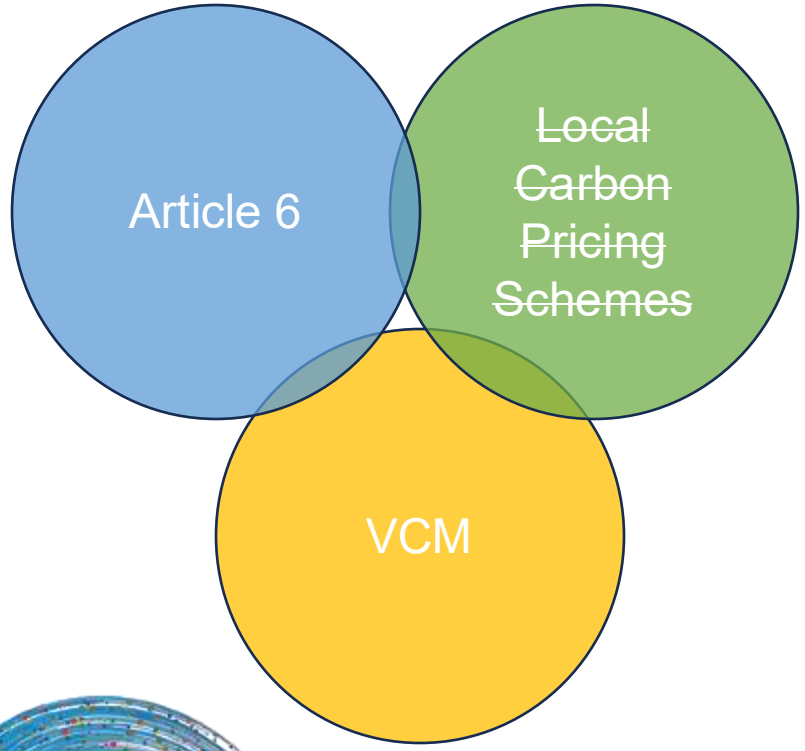
Integration of VCM, Compliance Market & NDC Markets

Beyond Article 6 support, digital registry platforms may support carbon pricing schemes (ETS, Carbon Taxes) and also VCM oversight



Article 6

- Track, Monitor and Report under UNFCCC requirements
- Avoid double counting under Paris Agreement NDC scopes
- Enable participation in Cooperative Mechanisms
- Record transfers and ownership of ITMOs

Local Carbon Pricing Schemes

- Support Issuance of Allowances and Credits
- Track Ownership and Compliance
- Enable Allowance trade among market participants
- Enable linkages with other Carbon Pricing Schemes
- Fulfilment of compliance obligations (surrendering allowances)

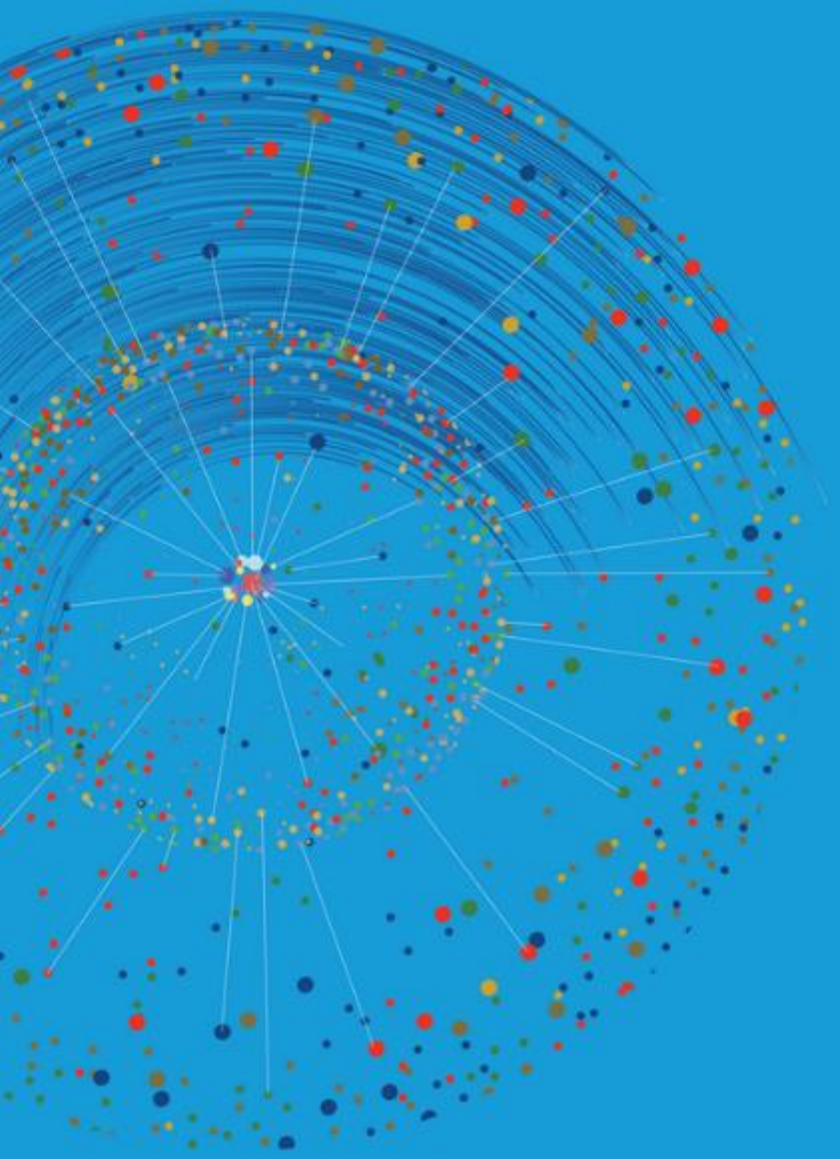
Voluntary Carbon Markets

- Enable Government oversight over VCM projects
- Capture of VCM projects towards host-country NDC (if credits are not-authorised for A6)
- Regulation of different aspects at project level (e.g., benefit sharing requirements, protection of national interest, avoidance of detrimental impacts from projects)
- Possibility of integration with Standard-Specific solutions (e.g., Verra, Gold Standard, GCC, etc.)

Day 1 Agenda

Session	Time	Title
	08:00 - 08:30	Registration
	08:30 - 09:00	Welcome and Introduction
1	09:00 - 10:00	Introduction to Article 6: Cooperative Approaches
2	10:00 - 10:45	Managing Risks & Unlocking Opportunities in Article 6 for NDC Implementation
	10:45 - 11:00	Break
3	11:00 - 11:45	A6 Readiness Identifying Mitigation Activities & Institutional Engagement for Article 6.2
4	11:45 - 12:30	Understanding Article 6.4 Framework, Governance & Implementation
	12:30 - 01:30	Lunch
5	01:30 - 02:30	Country context Operationalizing Article 6.2 in Papua New Guinea
6	02:30 - 03:00	Embedding Workshop Learnings into National Strategies
	03:00 - 03:15	Break
7	03:15 - 04:00	Expert Clinic: Addressing Key Concerns
	04:00 - 04:15	Closing Session

Session 6



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Embedding Workshop Learnings into National Strategies

Open Discussions & Group Exercise

Operationalizing Article 6 & Capacity Building

1. What key challenges do countries face in operationalizing Article 6, and how can capacity-building programs better address them?
2. How can collaboration with stakeholders and international organizations be strengthened to support Article 6 initiatives?
3. What additional resources or support would be most beneficial for countries at different stages of Article 6 implementation?
4. How do countries measure the effectiveness of capacity-building programs?
5. What future plans or initiatives are in place to enhance Article 6 support in the region?
6. Based on your country's progress, what crucial aspects should the workshop cover, and where would you appreciate a special focus?
7. Are there any important themes missing from the program that should be included?

Carbon Trading & Investments in Low-Carbon Technologies

1. What are the current gaps in investments for low-carbon technologies in your country?
2. What strategies can be employed to address these gaps and leverage carbon market policies to promote investment?
3. What challenges do you face in operationalizing carbon trading systems, and how can they be addressed?
4. What strategies could be implemented to effectively operationalize carbon trading mechanisms?

Reflections

Current NDC Details

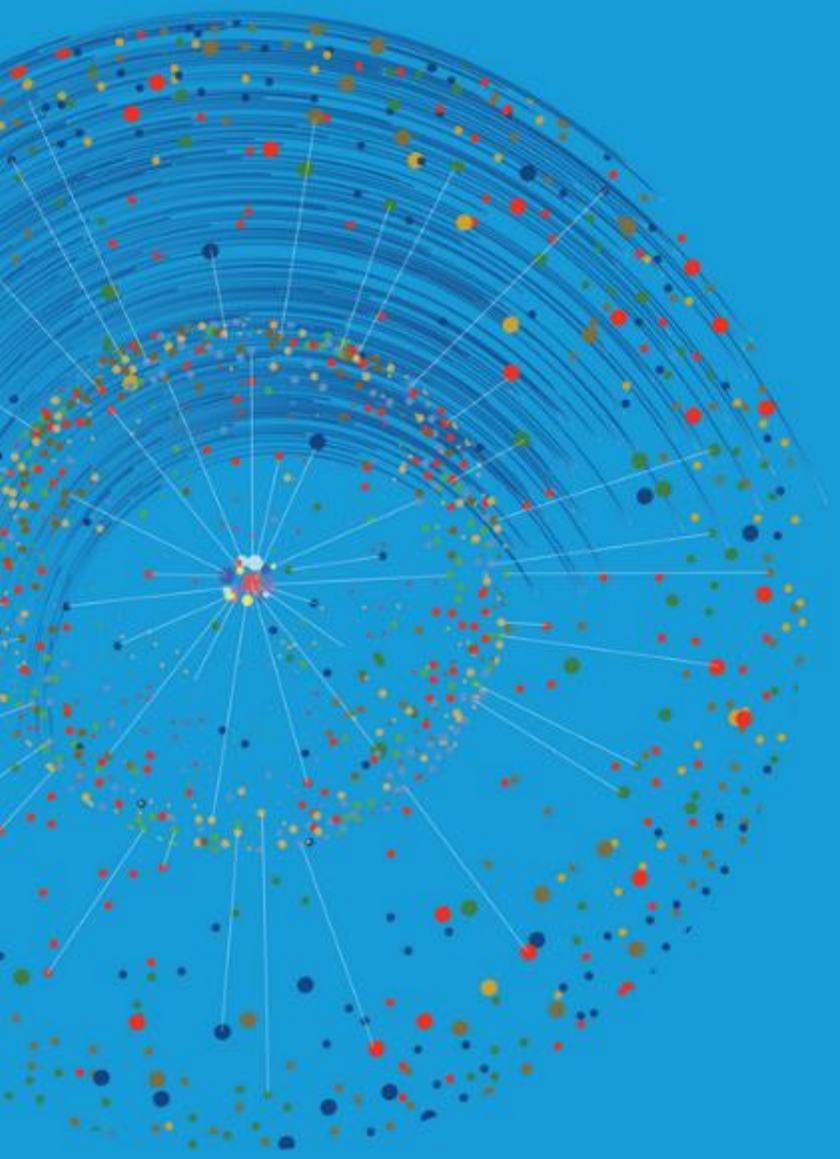
1. What does my current NDC include?
2. What is included in the conditional part of my NDC? What kind of support will be utilized?
3. What aspects are outside the scope of my NDC? Does the country plan to mobilize these, and if so, how?

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?



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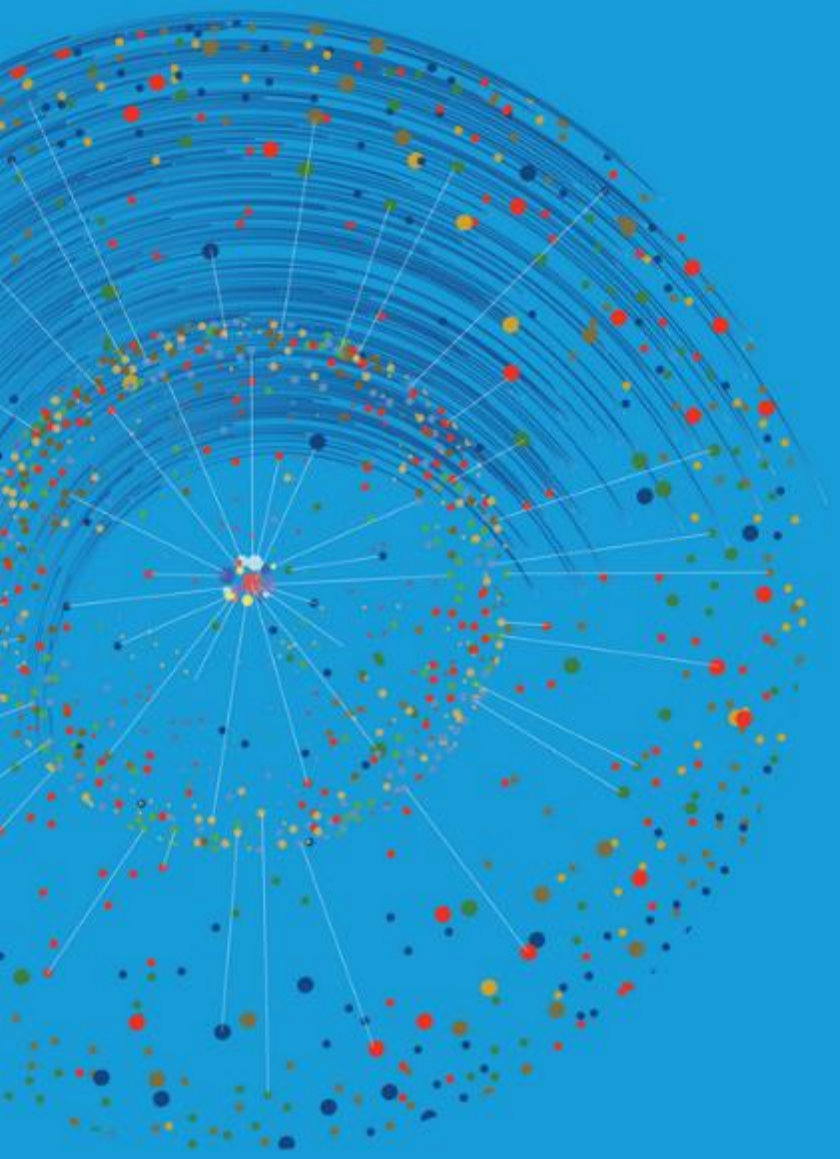
Working Session

Session 7



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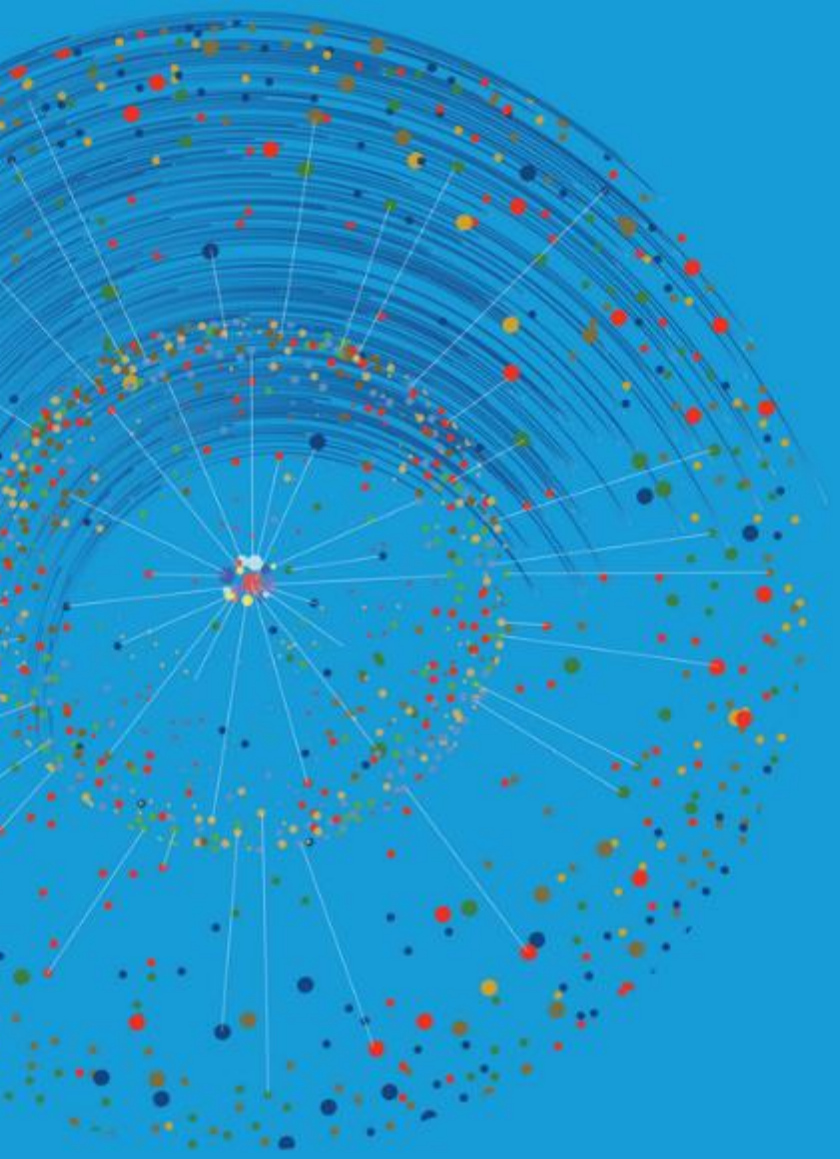
Expert Clinic: Addressing Key Concerns



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Day 1 Closing