

Regulating carbon markets: building capacity for the implementation of Article 6 of the Paris Agreement

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Victoria Falls and Online

National Carbon Infrastructure - Registries

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Reporting requirements under Article 6:

As per the Glasgow text, participating parties are required to regularly submit information on projects and programs related to their Article 6 activities. The reporting requirements are intended to ensure **environmental integrity** and **transparency** of the Article 6.

Vital Infrastructure:

- **Inventory** - Records physical GHG emissions and removals for a country
- **Data Management System** – Records information on carbon unit and policy/program/project
- **Registry** - Records carbon units for market mechanism/results-based climate finance programs, etc.

While the DMS can be implemented offline, it is mandatory to display information related to projects and units online in a registry.

Data Management System

- A database that stores and tracks information related to GHG emissions, emission reductions/removals, methodologies and tools, permissions required for project operation, host country issued documents, stakeholder engagement documentation, monitoring reports, validation, and verification reports, among others.
- This information is reported in the initial report and in the Biennial Transparency Report
- It serves to satisfy transparency, environmental integrity, and overall quality concerns regarding MOs and ITMOs generated by mitigation actions

Registry:

- A system that has two functionalities:
 - **A register** - database that records unit-level information as required by the market mechanism. This includes the vintage of the carbon unit, the serial number and location of the project for which the carbon unit was issued, the project owner, or verification details.
 - **A transaction registry** - database that has all the features of a register, plus the capability to transact carbon units between multiple account holders on the transaction registry (internal transfer), and/or the capability to transfer Carbon units to another transaction registry (external transfer).
- The Register and transaction registry constitutes "**The carbon Registry**", that tracks information related to the use and transfer of MOs and ITMOs reported by each Party.
- Whether at the national or international level, all required reporting information on cooperative approaches, CAs, and MOs will need to be recorded and updated in the registry.

Registry Options

A party can use different options for the registry functions:

- **Developing a Domestic Registry***
- Developing/Participating in a Regional Registry
- Independent Standard or Third-Party Registry Systems
- International Registry – Secretariat / UNFCC

Current Challenges...

Measurement, Reporting and Verification (MRV) of GHG inventory, NDC actions, and carbon credits is extremely challenging.

Many countries expressing the need to develop similar **digital** transparency systems and registries

Digital tools

Standalone development by each country lead to use of fragmented solutions, longer lead time and cost, vendor lock-in and duplicate effort in similar systems without interoperability

Digital Public Goods Approach

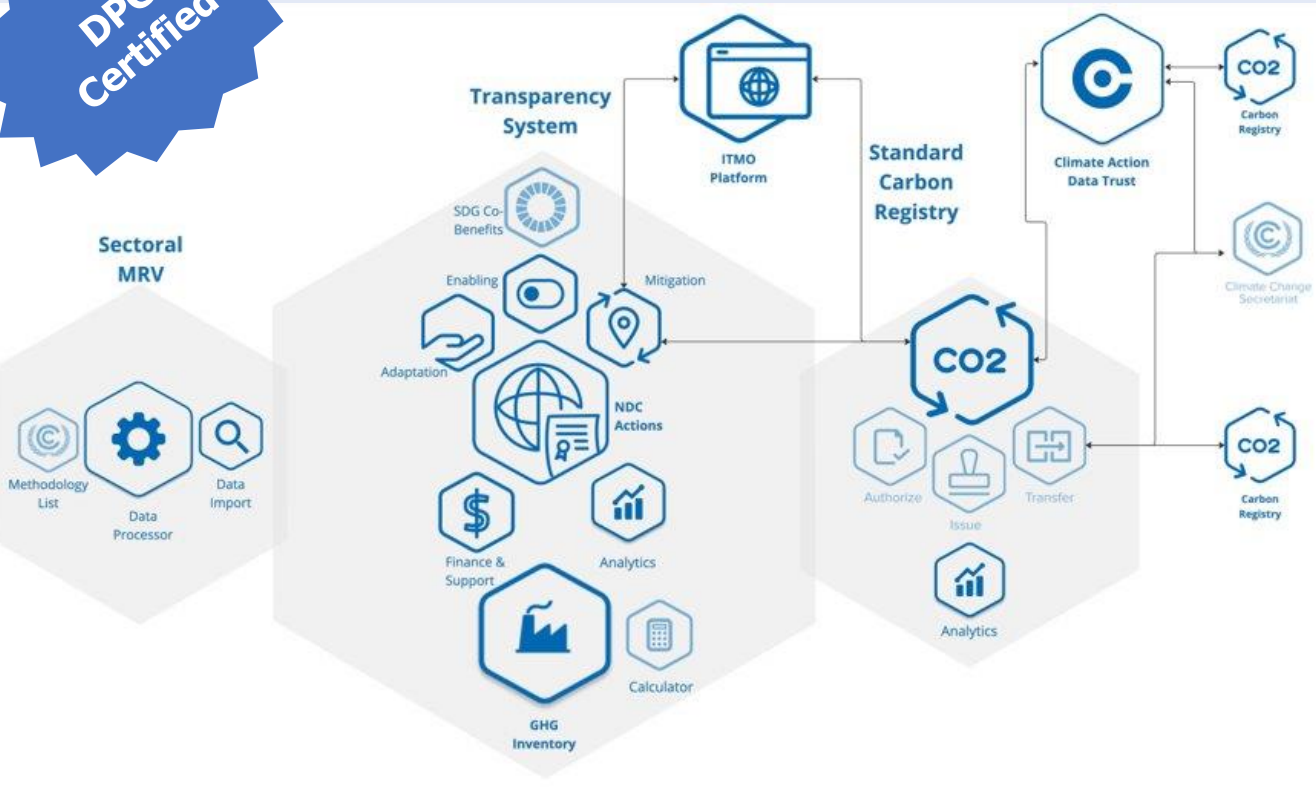


DIGITAL 4 PLANET

UNDP Support to National Carbon Market Registry Development - **Digital Solutions**

Replicable, Open Source Digital Public Good to Support Sovereign System Development

DPG
Certified

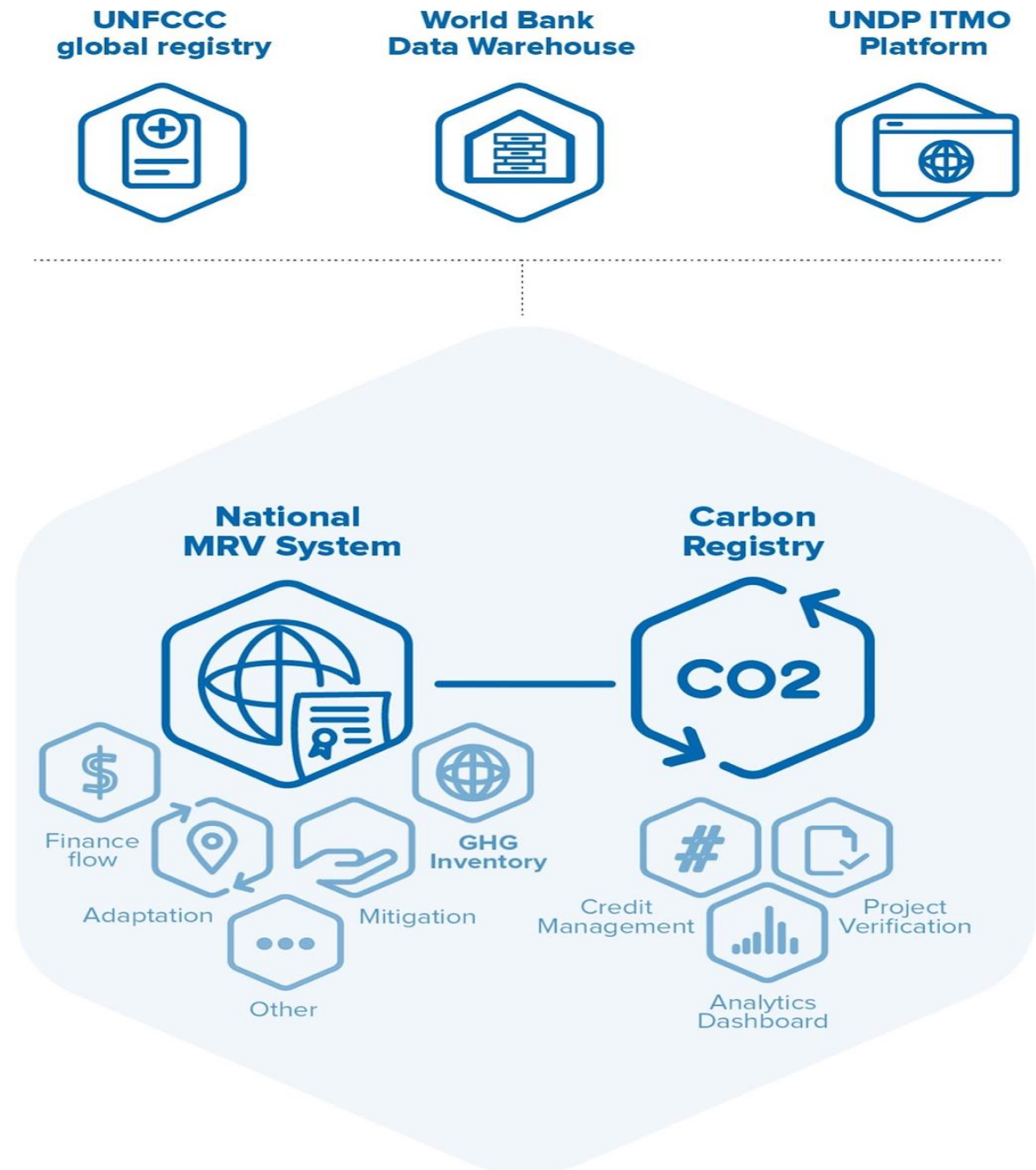


- **Open-source, Digital Public Good codebase** for any country to install and adapt
- **Collectively built and managed** with inputs from 40+ countries and experts, following international guidelines
- **Facilitate Interoperability** with major platforms to enable end-to-end reporting and carbon credit trade
- **Continuous upgrades for security**, data, integration, upgrading the registries as technology evolves
- **Lowers price, risk, and shortens lead time** for system development by reusing software and technical documentation.

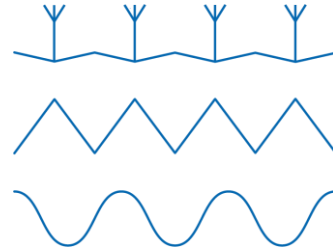
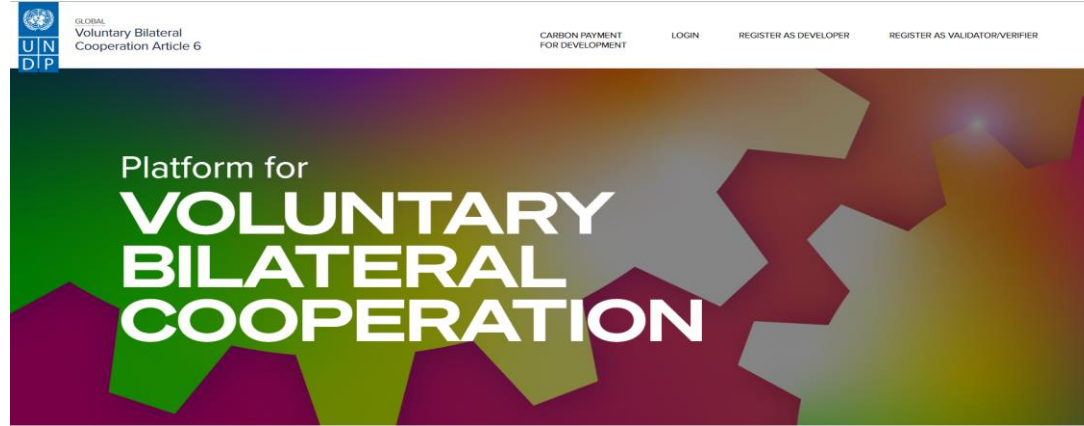
Modular Tools



- **National Carbon Registry:** Managing carbon credits, transactions, and related matters to enable access to climate finance and ensure sustainable development
- **National Transparency System:** monitoring emissions, tracking NDC progress, and ensuring that a nation's commitments are reported, building credibility
- **Carbon Cooperation ITMOS Platform:** Article 6.2 ITMO flows & monitoring apps



Carbon Cooperation ITMO Platform



Bilateral Interaction

Simplifies Article 6.2 ITMO project implementation workflows with a secure, UNDP-hosted one-website solution. Manage carbon programs, from initiation to reporting.

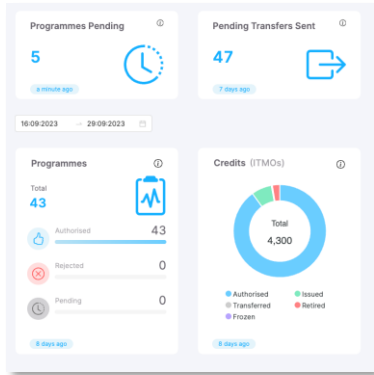
Media Monitoring

Enhanced verification with video and photo data monitoring. The platform's media capabilities offer robust log verification, bringing an added layer of transparency and reliability to mitigation project MRV.

Configurable User Interface

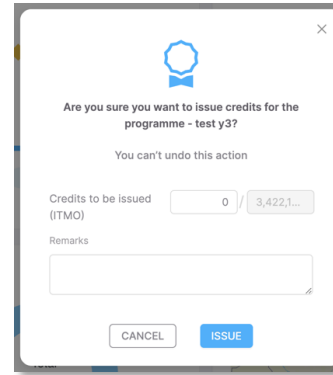
Tailor the platform to your country's unique process flow with a configurable country page. Users can follow the step-by-step process up to ITMO issuance (through registries)

National Carbon Registry



Programme Management

A sovereign hub for managing carbon programs, including issuing & transferring credits, reviewing official documents, & supervising ownership. Streamline operations, ensure alignment with policies, and efficiently coordinate with stakeholders. Verifiable via blockchain ledger.



Carbon Credit Issuance

Automates the issuance of carbon credits, ensuring accuracy, transparency, and compliance with international standards. Facilitate the recognition and tracking of credits to ensure credibility.



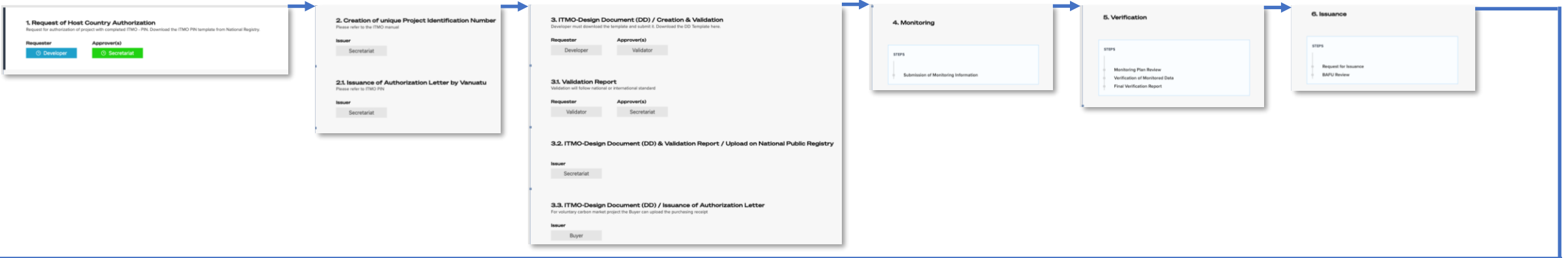
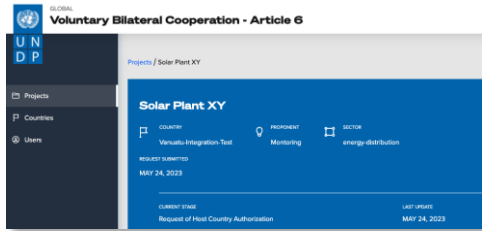
International Trading

Experience seamless trading of carbon credits within and across borders. Local transfers and retirements are all accounted for with detailed immutable records. While integrations & tokenization allow for traceable international actions.

Carbon Platform Interoperability

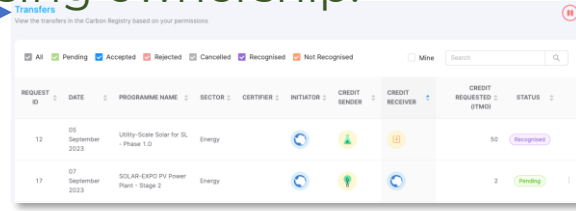
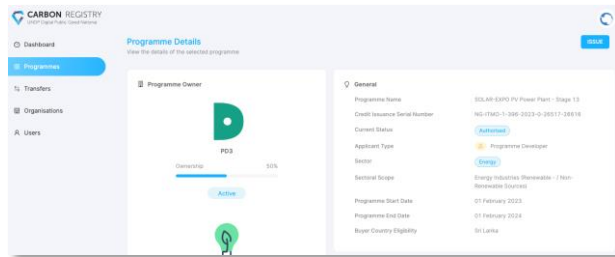
ITMO Platform

UNDP-hosted platform manages carbon programme workflows from initiation to issuance.

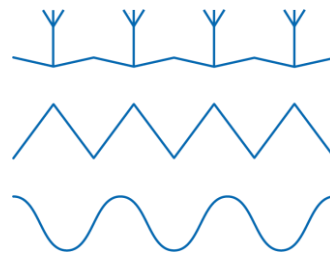


Carbon Registry DPG

A sovereign hub manages carbon programme workflows, including transferring & tracking credits, reporting & supervising ownership.



REQUEST ID	DATE	PROGRAMME NAME	SECTOR	CERTIFIER	INITIATOR	CREDIT SENDER	CREDIT RECEIVER	CREDIT REQUESTED (ITMO)	STATUS
12	05 September 2023	Utility-Scale Solar for SL - Phase 1.0	Energy					50	Recognised
17	07 September 2023	SOLAR-EXPO PV Power Plant - Stage 2	Energy					2	Pending

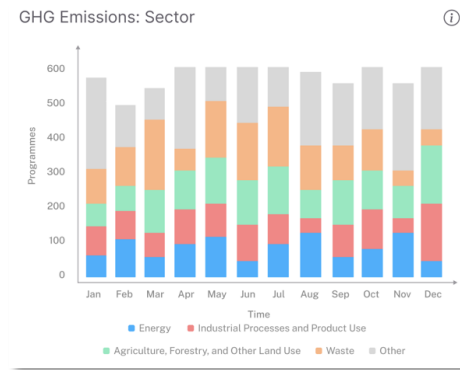


National Transparency System

NDC ACTION	PROGRAMME NAME	SECTOR	OWNERS	STATUS
Adaptation	Test Program (Ministry) 2	Energy		Pending
Enablement	Test Program (Ministry) 2	Energy		Pending
Enablement	Test Program (Ministry)	Energy		Pending
Enablement	Test Program (Ministry)	Energy		Pending
Mitigation	test y3	Energy		Pending
Mitigation	test n2	Energy		Pending
Mitigation	test n2	Energy		Pending

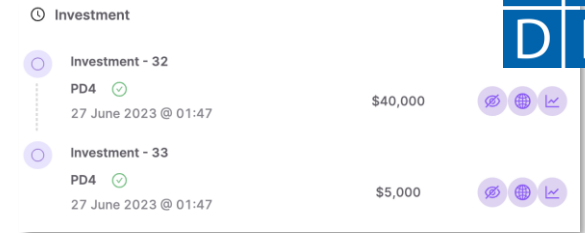
NDC Actions

Effortlessly track and report NDC mitigation / adaptation actions, programs, projects and activities to streamline BTR reporting through integrated CTF. Facilitate compliance to common international commitments and national institutional arrangements.



GHG Inventory

Maintains a comprehensive inventory of greenhouse gas (GHG) emissions with ease. The system allows for accurate data collection (with Excel integration) and reporting, supporting informed decision-making.



Support Tracking

Gain full visibility into financial flows and support mechanisms related to NDC actions. The system provides a clear picture of investments, capacity building, and technology transfer, ensuring both accountability & effective management.

Budgeting for National Setup:

Key Considerations...

- | | |
|---|-----------|
| 1- National IT company To install, configure and set up IT registry (this price varies based on experts' years of experience and country cost and may be increased depending on the scope of work-Please see 7 as an example) | ~50 Days |
| 2- National carbon market expert to ensure alignment with national carbon market requirements | ~50 Days |
| 3- In-country scoping mission (optional- see Annex 3 for Mission Plan)
(If Global team is needed on field, Plan for Flight ticket and DSA and workshop) | ~3-5 days |
| 4- Workshops with stakeholders, end to end testing and handover | ~2-3 Days |
| 5- Maintenance cost, Server, domain cost for 1 year *This will become a recurring cost | ~1 year |
| 6- Carbon methodology translation and testing support (Price depending on # of methodology, generally costed in the global component of partnering project) | |
| 7- Integration of the system with other National (carbon systems) may require additional fees depending on the complexity and number of systems | |

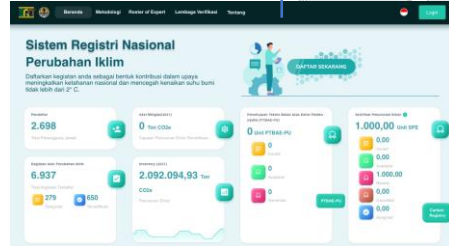
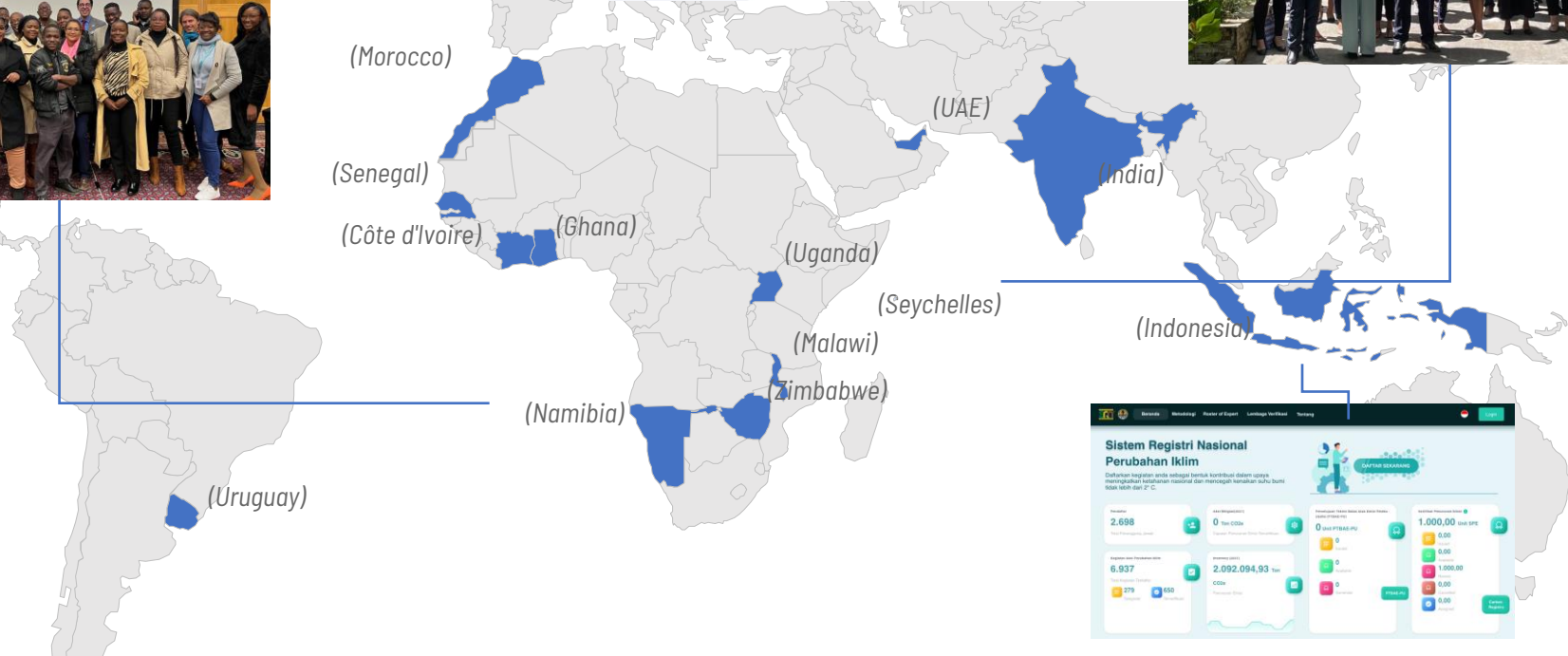
Support provided through Climate Promise Transparency, CBIT and UNDP Carbon Market Offer



NDC TRANSPARENCY

Project List

Project ID	Programme ID	Title of Project	Project Status	Recipient Entity (id)	International Implementing Entity (id)	Validation Status	National Implementing Entity (id)	Estimated Investment needs (USD)
2001	P001	Installation of 3 MWp PV in Mali	Completed	Ministry of Agriculture, Climate Change and Environment	AFDB	Validated	Department of Energy	
2002	P001	Installation of 3 MWp PV on Djazoua Island	Planned	Ministry of Agriculture, Climate Change and Environment	AFDB	Validated	Department of Energy	
2003	P002	1MWp Solar PV assigned on Sihanwa Island	Completed	Ministry of Agriculture, Climate Change and Environment	AFDB/UNEP	Validated	Department of Energy	
2004	P002	1MWp Solar PV assigned on Kachika Island	Ongoing	Ministry of Agriculture, Climate Change and Environment	UNEP	Validated	Department of Energy	





**THANK
YOU!**

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Ideas
to
Action