Digital Public Goods for Climate Transparency:

National NDC Transparency System

Challenges in climate data collection & reporting

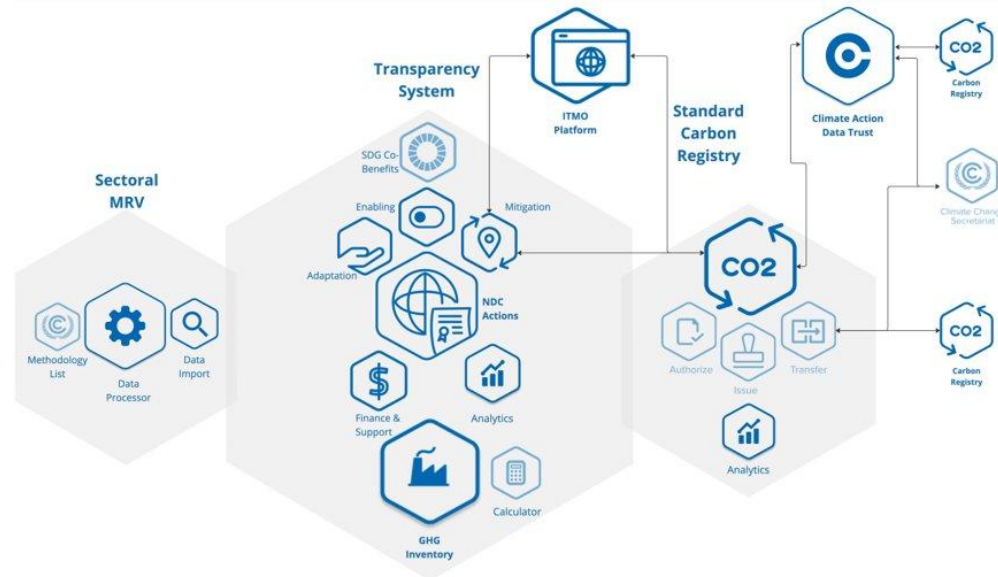| Lack of data availability | Data spread "everywhere" - across organizations, owners | Lack of trust in data quality and accuracy | Limited human capacity: Time consuming | Manual Reporting to UNFCCC | High cost and timeline to build digital tool from scratch |

SOLUTION: Supporting National Transparency Systems with a Digital Public Good codebase
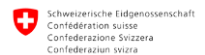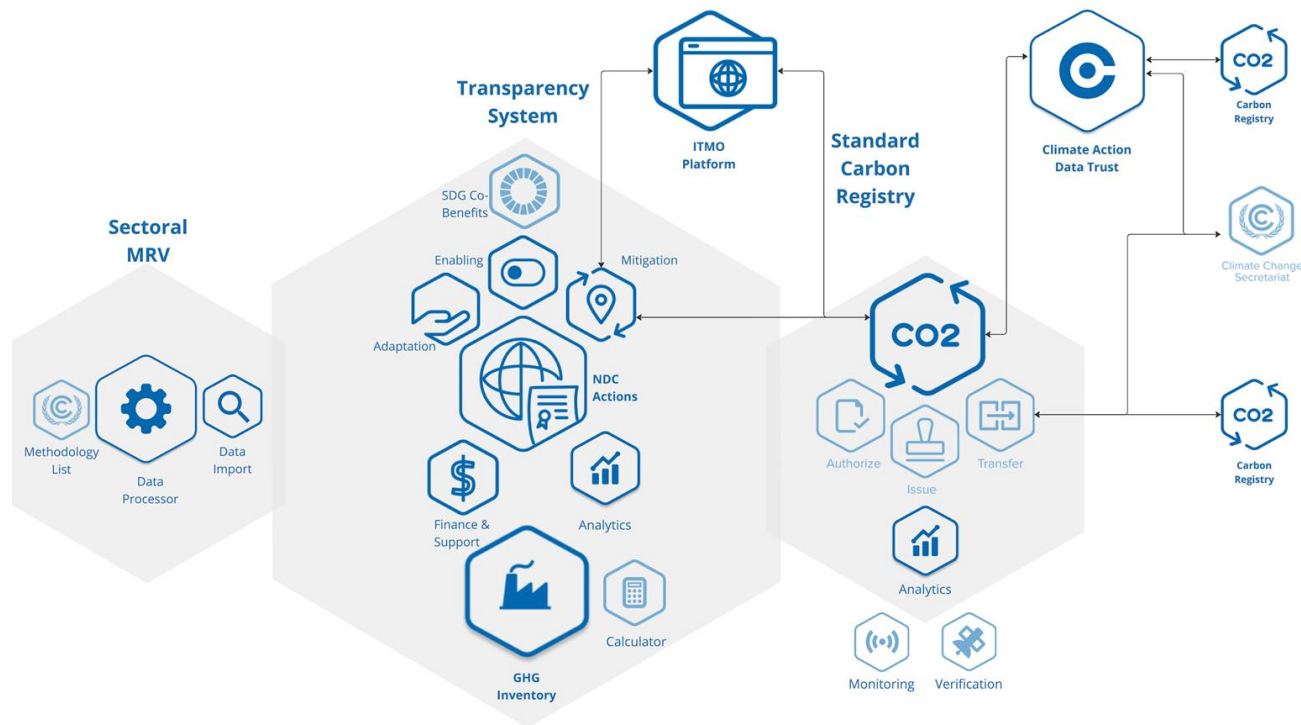

- **Open-source, Digital Public Good codebase** for any country to install and adapt

- **National Sovereign system** to track and manage NDC actions, GHG inventory, carbon credits etc.

- **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
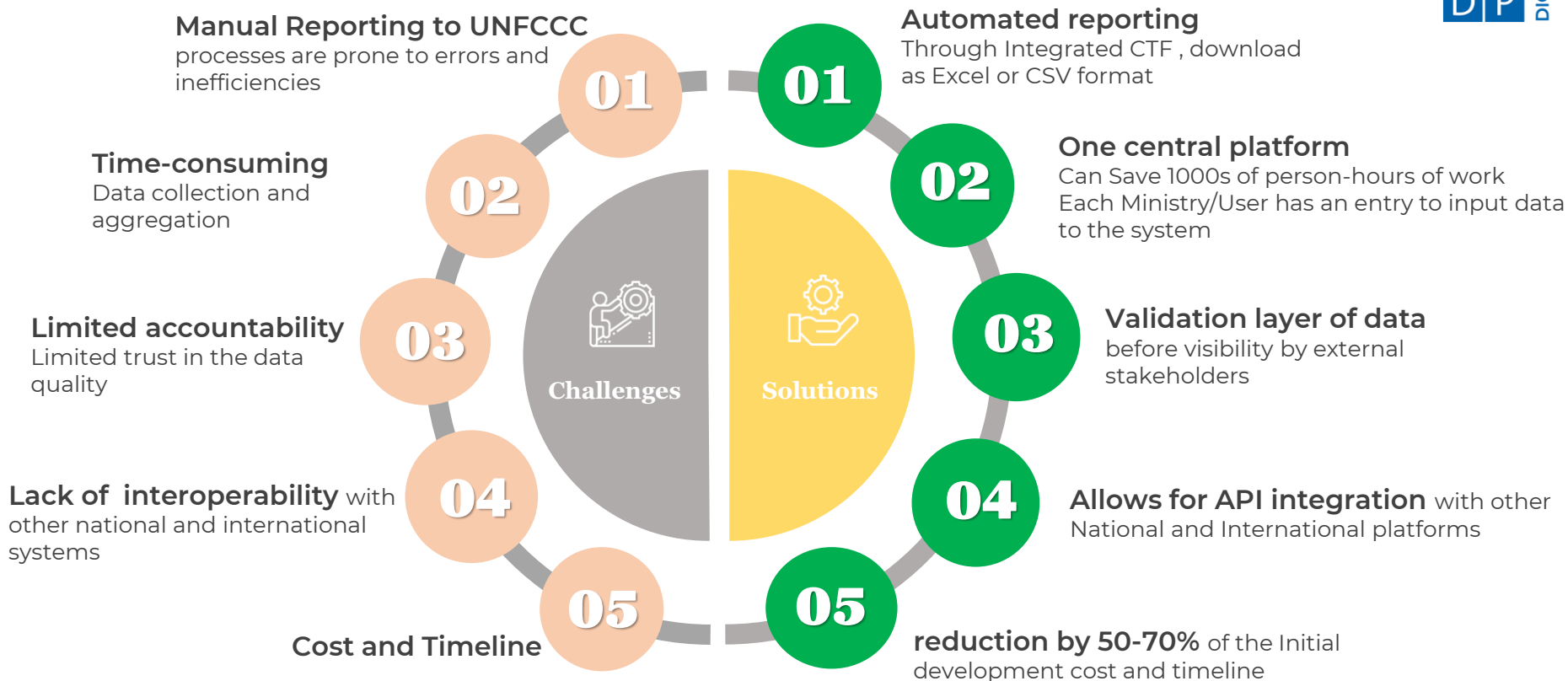
Part of an Ecosystem of digital tool for climate transparency

UNDP have formed the **Digital for Climate** working group with World Bank, EBRD, UNFCC, and others to agree on standards, share best practices, and build an ecosystem of interconnected and interoperable tools for climate.

DPG National MRV System as the solution

Challenges

Manual Reporting to UNFCCC
processes are prone to errors and inefficiencies
01

Time-consuming
Data collection and aggregation
02

Limited accountability
Limited trust in the data quality
03

Lack of interoperability with other national and international systems
04

Cost and Timeline
05

Solutions

Automated reporting
Through Integrated CTF , download as Excel or CSV format
01

One central platform
Can Save 1000s of person-hours of work Each Ministry/User has an entry to input data to the system
02

Validation layer of data
before visibility by external stakeholders
03

Allows for API integration with other National and International platforms
04

reduction by 50-70% of the Initial development cost and timeline
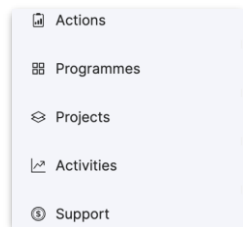**05**

System MVP : Key features

The digital public good system enables countries to securely compile and report climate actions, progress, and support under the Paris Agreement's Enhanced Transparency Framework (ETF).
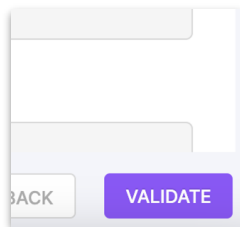
Customizable to government needs, it ensures compliance with ETF guidance for Biennial Transparency Reports.

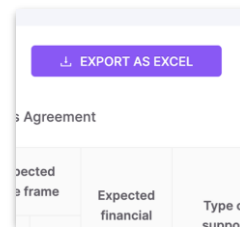Future improvements will integrate the system with other registries, databases, and adaptation reporting.

Information Structure

The different modules follow the information structure often used when countries plan and implement climate actions.
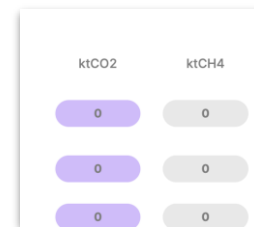
Validation

Governments can assign users to validate the information provided for each climate action, programme, project, activity and support before reporting.

Standard Reporting

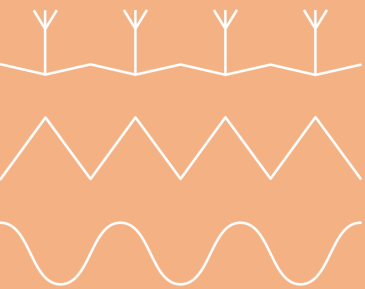Data is automatically consolidated using the Common Tabular Formats of the ETF.

Needs integrating with UNFCC registry to automatically export data.

GHG inventory

Helps governments project emissions based on standard exponential modelling by input modelling data from other software and models.
Needs integrating with IPCC software to automatically import data.

Demo :

National NDC Transparency System

Country needs to set up and configure

Phase 0	Phase 1	Phase 2	Phase 3	Phase 4	BAU
Code base	Planning	Scoping	Develop / Configure	Install, test, handover	Run, maintain

Maintained by UNDP's Digital 4 Planet team, the Github contains code for a generic software that needs to be configured and installed locally	Government to: - Gather high level requirements - Set up governance, budget - Decide on hosting option (cloud vs server) - Recruit local IT vendor & local carbon market expert	- Define country specific scope, assess carbon market framework and needs - Identify existing projects, processes - Design and test local MVP - Define local features, users	- Prepare server and tech requirements - Install open-source code on test server - Configure system and develop API - End to end testing with pilot users	- Finalize/accept system based on testing - Create and rollout training - Use feedback to improve source code	- Government maintains service, manages users and collects data - Ongoing maintainence, new features - Participates in Community of Practice

Plan *1-6 months* Plan *5-7 months, $ 85,000* *X-years (~10,000/year)*

Detailed WP & Budget for program integration

Planning DPG Registry & Transparency system - Copy.xlsx

Steps	Checklist	Activities	Category	Duration	Responsible	Provision
		DPG Digital Transparency System Sample Workplan				
1a. Planning Phase						
1.1	☐	High-level Requirement Gathering Workshop(s) to assess the country's existing MRV systems to track and report on progress on climate action under the Paris Agreement. Assess institutional setup for data sharing, procedures, and responsibilities. Review existing digital tools, new digital requirements, policy and funding commitments, timeline, budget, ownership, existing resources and gaps needed for procurement. Discuss and agree on which government agency will host and own the product.	Requirements		UNDP CO	xx
1.2	☐	Start IT dicussions: Connect the DPG team with IT colleagues from Government. Discuss tech constraints, requirements, and hosting options: local server or AWS cloud. [The current product system set-up is optimized for AWS, UNDP recommends AWS cloud & will support setting up the right service structure in AWS]. Understand what existing IT capacities there are and if additional support needs to be procured.	Tech	1-3 months	UNDP CO, Gov IT	xx
1.3	☐	Identify and form task force made of representatives from relavent policy areas and IT who will make key decisions during Scoping, act as the Administrator, engage users, and maintain/own the service after	Governance		Gov	
1.4	☐	Review budget and funding sources for the project. This includes budget for the IT setup (server, domaine name, security certificates), any additional capabilities that need to be procured and engaged (see below) and at least 1-3 year maintenance cost (including maintenance team). Prepare TORs for procurement.	Budget		UNDP CO/Gov	
1b. Procurement Phase						
1.5	☐	Procurement of local IT vendor for the installation/set-up and local configurations of the system ~ 40 days	Capability		UNDP CO	~20,000 USD
1.6	☐	Procurement of local Transparency expert to ensure alignment with national transparency requirements ~ 40 days	Capability	1-3 months	UNDP CO	~20,000 USD
1.7	☐	(Optional) Engage international IT vendor (on UNDP framework) for capability support, knowledge transfer, and quality assurance ~ 5 days	Capability		UNDP CO	~3,000 USD
1.8	☐	Engage international MRV expert (on framework) for capability support, knowledge transfer, and quality assurance (optional) ~ 6 days	Capability		UNDP CO	~4,800 USD
2. Scoping Phase						
2.1	☐	Review Existing MRV Framework: Detailed review and analysis of the country's existing MRV systems - Map the core information and data needed for the national MRV system to template (taking into account international reporting requirements such as GHG inventories, BURs, BTRs, and National Communications) - Gather existing data sources, best practice requirements, reporting templates, producing a review report	Requirements		Local MRV expert, international MRV expert	xx
2.2	☐	Set up working group governance: Setup weekly core team working group (made of vendor, UNDP and core government representatives to discuss work in progress) and monthly steering group (to review decisions with government task force and IT). Identify project manager to make project plan and own progress.		2-4 weeks	Gov task force, UNDP CO	
2.3	☐	Design information structure for MRV system: Identify what data exists/does not exist in the country, what fields from the demo version need to be optional, changed. Test users can complete information exercise	Requirements		Local MRV expert, international MRV expert, local IT vendor	