Creating Climate Markets

Operationalizing Article 6

6 March 2019, Glion



The World Bank has initiated piloting for Article 6 through its lending

\$7-8
billion
annual
lending is
for
mitigation
activities.

\$40-50 billion in annual lending. <u>Creating MOs</u>: Identification of methodology for estimation of the mitigation outcome (MOs) and associated methodology for monitoring reporting and verification of the MOs

<u>Verifying MOs</u>: Verification of the MOs by independent assessors utilizing the Mitigation Action Assessment Protocol (MAAP), for quality assurance

<u>Warehouse</u>: Banking MOs from actions in a Registry for transparent accounting

<u>Carbon Markets</u> accessed through the International Transfer of the Mitigation Outcomes (ITMOs), including through

Carbon Funds (e.g., TCAF, Ci-Dev)

Bilateral sale

Transaction platform

Choice of instrument will depend on the type of program (ITMOs, sectoral crediting, offset, etc.) location in LDCs or middle-income countries and other regulatory aspects

of the mitigation outcomes for NDC compliance

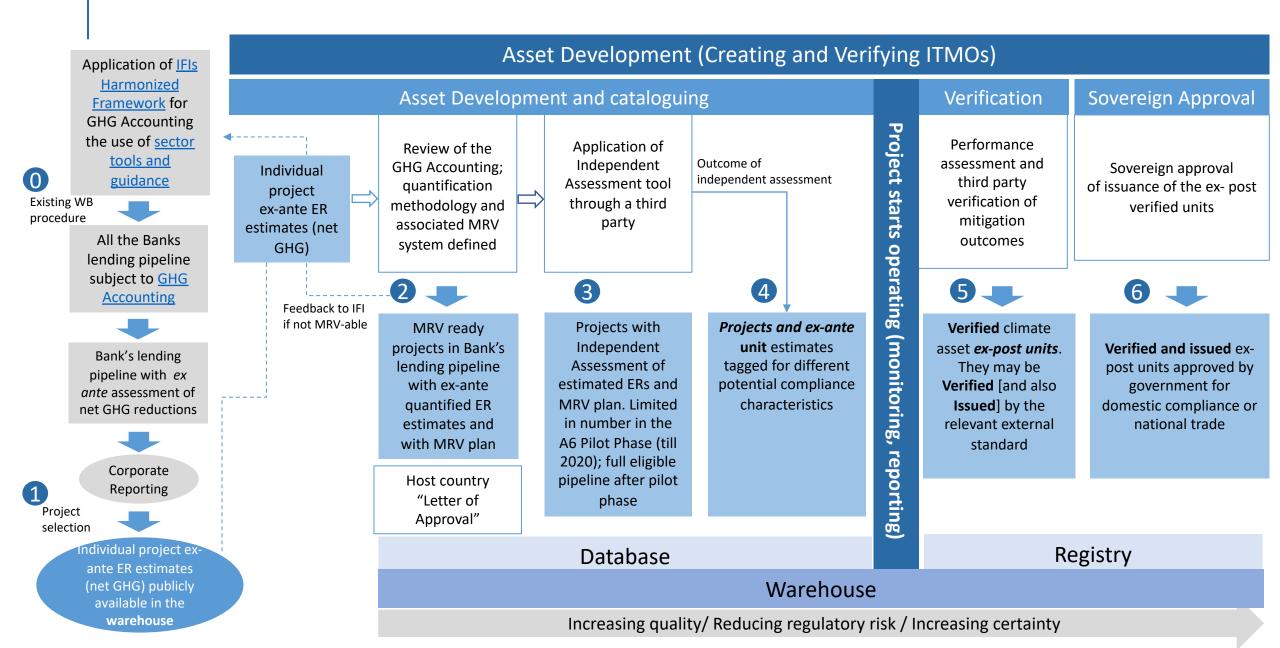


CREATING ITMOs: Pilot Projects in progress.

- Bangladesh: Rural Electrification and Renewable Energy Development Project
 - Household energy component of US\$46 million to install 4 million efficient cookstoves.
- Bangladesh: Scaling-up Renewable Energy Project
 - US\$320 million financing facility to provide financing for 260 MW of rooftop solar installation.
- Bangladesh: Livestock and Dairy Development Project
 - US\$500 million towards improvements in on-farm productivity.
- India: Grid-Connected Solar Rooftops Program
 - US\$625 million for the development 400 MW of grid-connected solar rooftop PV projects.
- India: Shared Infrastructure for Solar Parks
 - US\$198 million on-lent by IREDA for procurement of shared infrastructure for solar parks. Expected to install 1750 MW renewable capacity.



Creating ITMOs: builds on corporate commitment on GHG accounting



CREATING ITMOs: Approaches to creating mitigation outcomes

- **Utility-based approach:** Creating mitigation outcomes from transforming the long term generation expansion plan of Kenya Electricity Generating Company (KenGen).
- National Aggregation:
 - Large development banks such as IDCOL in Bangladesh and IREDA in India act as aggregators of mitigation outcomes at the national level for identified sectors.
 - Explore approaches to MRVing national programs such as Chile's National Energy Policy (2050) which has a goal to have at least 70% of its electricity generation from renewable energy sources.
- Regional approach: Work with West African Power Pool (WAPP) on mitigation activities in the national power systems of 14 member countries of the Economic Community of West African States (ECOWAS) region.
 - MOs arise in the unified regional electricity market from (a) efficiency gains in optimizing national energy systems and (b) greater use of renewables in the integrated electricity markets; and (c) trade of renewable electricity



Independent Assessment – manual and code of conduct

- The *Designated Operational Entities & Independent Entities Association* (D.I.A) is developing a Manual to ensure the quality and consistency of independent assessments using the Mitigation Action Assessment Protocol (MAAP) as a starting point
- The Manual seeks to contribute to an independent and internationally accepted system for comparing MOs
- The Manual will be peer reviewed and piloted on 3 WB operations by May 2019.
- Code of Conduct between DIA and independent assessors to ensure quality control, self-regulation and to avoid the need for international accreditation process
- The Independent Assessment Manual and the Code of Conduct for Independent Assessors will be launched for public consultation at Innovate for Climate (I4C) in June 2019



Warehouse for Mitigation Outcomes – design options

- Common infrastructure: recording, transferring, and using MOs
- Design options for Warehouse based on Advisory Group consultations:

Database

- Show information about MOs from WB/MDBs
- Not linked to registries (manual update)
- Possibility to link to other pipeline databases

Registry

- Registers MOs that are developed from operations/activities but are not certified/issued by existing standards (e.g., CDM, VERRA, Gold Standard, others, including at the national level such as the Thailand Voluntary Emission Reduction program)
- Independent assessment protocol based on MAAP will characterize the MDBs' MOs entering the warehouse
- Creates its own "standard"
- •Allows for transfer of assets within account holders

Meta-Registry

- Links sub-accounts to the global architecture for recording and tracking MOs (i.e., other registry systems) and reflects those MOs in a single, easy-to-use interface.
- Links to national registries with common features (MOs generated with sufficient safeguards, environmental integrity, etc.).

Transactions / Exchange

- Allows for transfer of MOs among market participants, using existing registries / exchanges or a new distributed ledger system (blockchain technology)
- •Not only mirrors other registries, but can facilitate transactions
- Potentially can allow a single user account to access all registries linked to it
- Potential to address accounting, corresponding adjustment issues



Asset Development (Creating ITMOs) Verification

Seller Sovereign Approval

Performance assessment and thirdparty verification of mitigation outcomes

Sovereign approval of issuance of the expost verified units

Sovereign approval to move units into trading account. adjusting both national (NDC) registry and trading account

Trading Platform

Seller/seller government's trading account, authorized entities have accounts on the platform

Buyer/ buyer government's trading account, authorized entities have accounts on the platform

Ex-post

units

Trading ITMOs

Buyer Sovereign Approval

Sovereign execution of adjusting trading account and NDC registry (+) for acquisition

Sovereign approval of transfer of acquired units to domestic trading units for national compliance or trade



Project starts operating (monitoring, reporting)











Verified climate asset ex-post units; may be verified (and possibly issued) by the relevant external standard body

Verified and issued expost units approved by the sovereign for domestic compliance or national trade.

Ex-post units ready for export/ trading

Transferred out into the trading account



Ex-post units







Traded unit acquired for further trading or transfer.

Domestic trading units transferred to the account of the authorized entity (which may have acquired the unit on the Trading Platform for domestic compliance or national trade)

Seller's Registry

Buyer's Registry

Warehouse

TRADING ITMOs: Transaction Platform

- **Objective**: Design financial instruments and products to mitigate risks to catalyze private sector action
- Advisory Group input: Key issues are sovereign (seller) regulatory risk related to "corresponding adjustment" and eligibility of assets' use for domestic compliance
- Two financial products under development:
 - MIGA risk guarantee for mitigating seller regulatory risk (corresponding adjustment)
 in Article 6 transactions
 - Option contract for managing price risk and uncertainties related to compliance demand (market risks)



Stakeholder Engagement

Advisory Group

- Donor countries (3), private entities (11) in partnership with IETA, and project implementing entities (4) to inform work on the piloting program
- 3rd Meeting on March 7 and the 4th meeting at I4C in June.

MDB Working Group on Art 6. Meets regularly to agree on common approaches for implementing Article mitigation activities linked to operations.

Client country consultations

- Help client countries build institutional approaches and make informed decisions on Art 6
 engagement. Bangladesh, Bhutan and India completed. Kenya and West Africa consultations
 planned in March.
- Partnership with IETA and others to actively consult the private sector. Meetings to date in Calgary, London, Seoul and Tokyo.



In conclusion

Progress on Article 6 will benefit from pilot activities

The World Bank has a number of programs on Article 6 (ASA, PMR, TCAF, etc.) and the work programs are aligned to pilot.

- Warehouse will start operation in 2019 and provide infrastructure for early action;
- Creation of mitigation outcomes linked to World Bank/ MDB operations will test independent assessment process and will initiate discussions in countries on NDCs and ITMOs;
- Through consultations with the Advisory Group, financial products to address
 the risk and engage the private sector will be developed and piloted.



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