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Climate Warehouse End-to-End Difference

End-to-End Digital Ecosystem for Carbon Markets

• Challenges in the Scale-up of Voluntary Carbon Markets

- Post-2020 markets under the Paris Agreement will be built through a bottom-up approach, as each party to the Agreement is required to track the greenhouse gas (GHG) emission reductions (or removals) achieved—and has considerable leeway to determine how this will be done.
- The bottom-up nature of future carbon markets comes with increased complexity and diversity of reporting and verification approaches for GHG emissions inventories and mitigation outcomes:
 - Limited transparency
 - Limited liquidity
 - Market fragmentation and inaccessibility
 - Quality variability
 - Lagging methodologies
- There is significant potential for **digital infrastructure** to underpin and streamline the functioning of post-2020 carbon markets.

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Source: Adams, Tim. Winters, Bill. Nazareth, Annette and Mark Carney Taskforce on Scaling Voluntary Carbon Markets Phase 1 Final Report: January 2021, TSVCM, pg. 45

Report by Taskforce on Scaling Voluntary Carbon Markets (TSVCM)



Data and trade infrastructure is a precondition to scale a transparent and inclusive carbon market

Climate Warehouse is piloting the digitization of the carbon market ecosystem



Digital work-flow project preparation from document development, approval, validation to registration in applicable standards







Designing, prototyping, piloting and validating digital infrastructure for the scale up of carbon markets and finance



World Bank Climate Warehouse Program:

Building an End-to-End Digital Ecosystem for Carbon Markets



Pillar 1: Piloting and Developing Global Public Goods

Making digital infrastructure for carbon markets available to client countries through development, testing and prototyping of innovative digital infrastructure for carbon markets.

Work Streams:

- **Digital for Climate (D4C) Working Group**. Collaboration with EBRD, UNDP, UNFCCC, and WB for a modular and interoperable end-to-end digital ecosystem for carbon markets.
- **Digital Monitoring, Reviewing and Verification (dMRV) systems.** Piloting the connection between dMRV systems with national carbon registries and national MRV systems.
- National Carbon Registries. Development of opensource offand on-chain transaction registries.
- **Tokenization instruments.** Development of tokenization instruments to tokenize carbon markets.
- Climate Action Data Trust (CADT)





Pillar 2: Global Knowledge and Capacity-Building

Support countries and jurisdictions to in implementation of digital infrastructure for carbon markets needed for GHG mitigation and NDC implementation.

Work Streams:

- **Develop** <u>knowledge</u> <u>base</u> <u>on</u> <u>digital</u> <u>infrastructure</u> and facilitate information exchange through technical discussions and knowledge dissemination
- Assist countries to identify and implement best practice approaches and, where relevant, achieve compatibility in design to support the <u>development and linking of digital infrastructure for</u> <u>carbon markets</u>
- Encourage international and national cooperation, and <u>inform the</u> <u>domestic and global policy discussions on GHG mitigation</u> by sharing lessons learned and providing a platform for collective innovation on digital infrastructure products