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Dominican Republic Livestock Protocol V1.0

Workgroup Meeting 1

February 21, 2023

Introduction



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Amy Kessler
Director of Latin America



Claudia Jurado
Analytical Associate, Latin America



Rachel Mooney
Analytical Associate

Housekeeping

- Workgroup members have the opportunity to actively participate throughout the meeting
 - Ask that you keep yourselves muted unless / until would like to speak
- We will ask and take questions throughout the session
 - Please use the raise your hand function
- All other attendees/observers are in listen-only mode
- Observers are free to submit questions in the question box
- We will follow up via email to answer any questions not addressed during the meeting
- The slides and a recording of the presentation will be posted online



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AGENDA

- Introductions
- Process Overview
- Protocol Considerations
 - Project Definition – Eligible livestock categories
 - Social and Environmental Safeguards
 - Anaerobic Baseline – Greenfields
 - Site-specific B_0 value
- Open Discussion
- Next Steps



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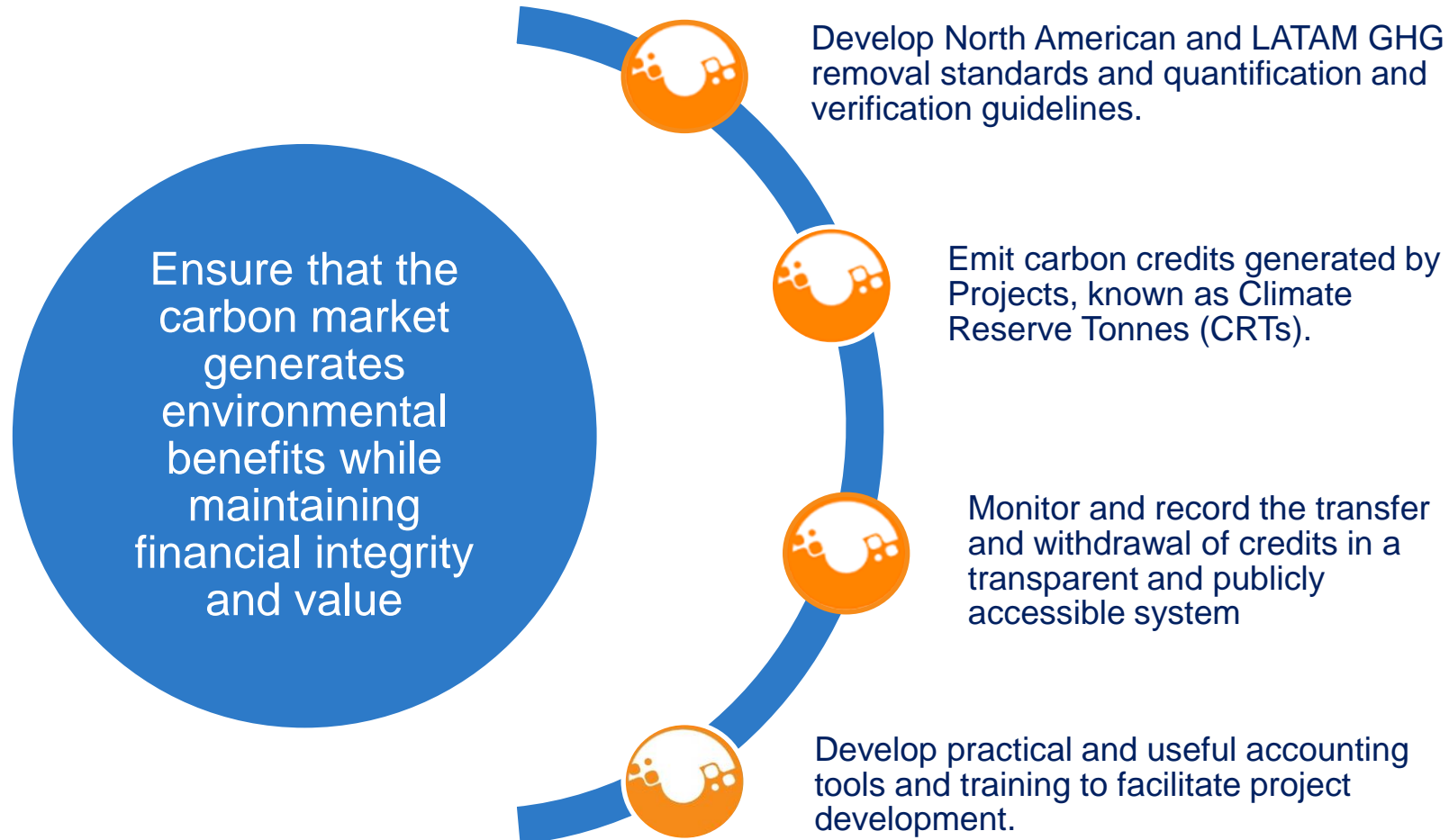
INTRODUCTIONS

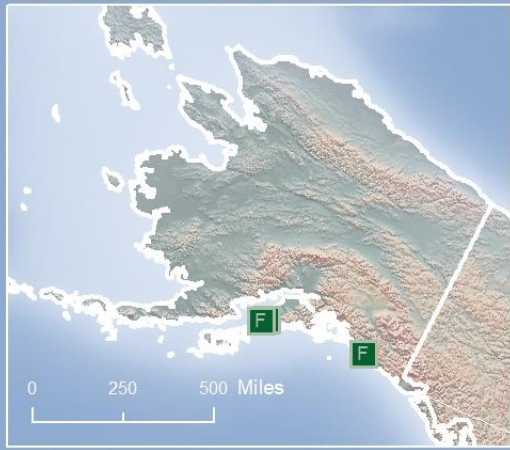
Climate Action Reserve



- Mission: to develop, promote and support innovative, credible market-based climate change solutions that benefit economies, ecosystems and society
- Develop high-quality, stakeholder-driven, standardized carbon offset project protocols across North America and Latin America
- Accredited Offset Project Registry under the California cap-and-trade program
- Serve compliance and voluntary carbon markets
- Reputation for integrity and experience in providing best-in-class registry services for offset markets

The Climate Action Reserve

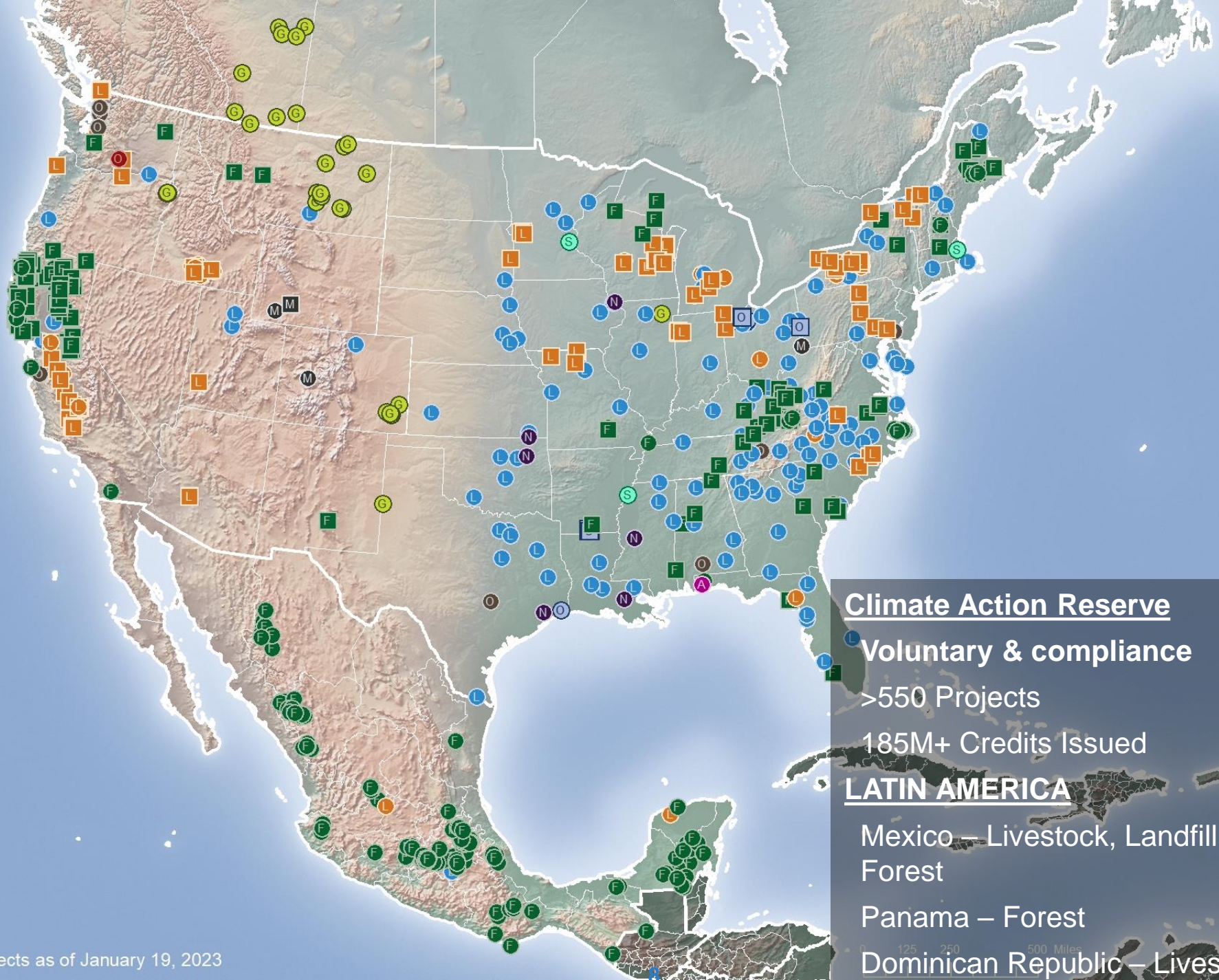




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- Adipic Acid
- Forest
- Forest (ARB)
- Grassland
- Landfill
- Livestock
- Livestock (ARB)
- M Mine Methane
- M Mine Methane (ARB)
- N Nitric Acid Production
- N Nitrogen Management
- O Organic Waste Composting
- O Organic Waste Digestion
- O Ozone Depleting Substances
- O Ozone Depleting Substances (ARB)
- S Soil Enrichment

Listed, Registered, Transitioned, & Completed Projects as of January 19, 2023



Climate Action Reserve

Voluntary & compliance

>550 Projects

185M+ Credits Issued

LATIN AMERICA

Mexico – Livestock, Landfill, Forest

Panama – Forest

Dominican Republic – Livestock

0 250 500 Miles

Workgroup Members

Organization (Alphabetical)	Name
AB Energy USA, LLC	Jesus Solano
ATOA Consulting Pty Ltd	Sami Osman
Independent	Thomas Grammig
Independent	Nelly Cuello
MexiCO2	David Collin
Ministry of Environment, Dominican Republic	Kenia Feliz
Ministry of Environment, Dominican Republic	Cesar Abrill
Nestlé Dominicana	Juan Crousset
Nestlé Dominicana	Leamsy Rodriguez (Alternate)
Independent	Josefina Fernandez McEnvoy
Ruby Canyon Environmental	Miguel Angel Freyermuth Corona
Terralimpia Biogas Solutions	Carolina Porrello



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PROCESS OVERVIEW

Purpose

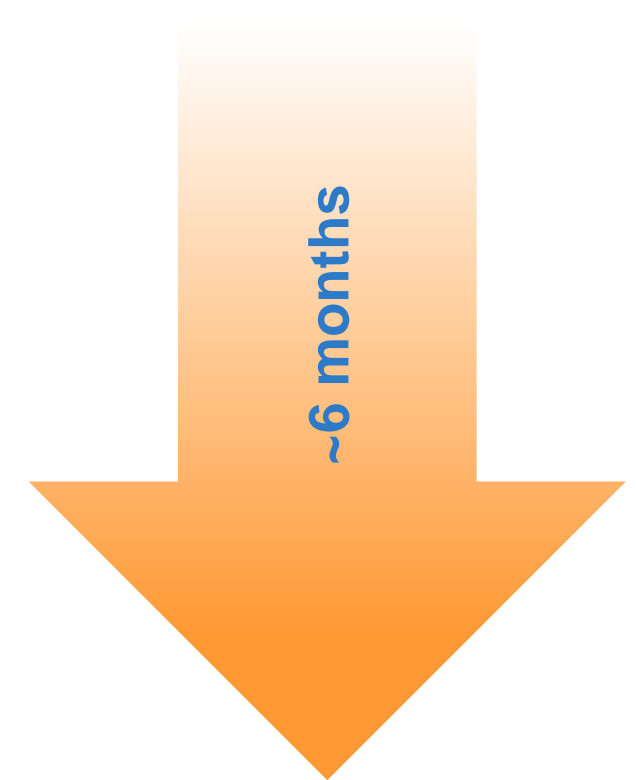
- To familiarize workgroup members with offset protocol development process – what we typically want in an offset protocol
- To present and solicit feedback from workgroup members on key considerations for the Dominican Republic Livestock Protocol Version 1.0
- Provide draft protocol for reference and then revisions

Protocol Development Overview

- **GOAL:** To create a robust Dominican Republic Livestock Protocol that provides best practices for GHG accounting to generate Climate Reserve Tonnes (CRTs)
 - Incentivize the capture and destruction of methane emissions from livestock operations
 - Direct carbon finance to the livestock sector and make biogas control system projects more financially attractive to investors
 - Adhere to high quality offset criteria and Reserve’s principles
 - Leverage lessons learned from the Reserve’s US and Mexico Livestock protocols
 - Solicit and incorporate expert stakeholder feedback

Protocol Development Timeline

1. Kick-off meeting (*January 26, 2023*)
2. Workgroup process
 - Formation (*February 2023*)
 - Meeting 1 (*today – February 21*)
 - Meeting 2 (*March 9, 2023 – tentative*)
 - Meeting 3 (*as needed, March 2023 – tentative*)
3. 30-day public comment period (*April – May 2023*)
4. Propose to Board adoption (*June 2023*)



Timeline Process Detail

	Jan	Feb	Mar	Apr	May	Jun
Public webinar	26 th					
Workgroup formation						
1st workgroup meeting (webinar)		21 st				
Drafting/content development						
2nd workgroup meeting (webinar)			9th?			
Drafting/content development						
Public comment period & webinar (30 days)						
Staff revisions based on feedback						
Internal reviews/formatting						
Deliver Board draft						
Public Board meeting						7 TH

Workgroup Process and Expectations

CAR/Process:

- Manage the protocol development process
- Hold 1-2 workgroup meetings
- Reserve staff identify and solicit feedback on specific protocol criteria
 - **Specific questions for WG will be highlighted in red**
- Reserve staff will share the draft protocol with WG
- Revise protocol based on feedback

WG/Expectations:

- Attend all (~1-2) workgroup sessions
- Be active participants: provide input and ask questions on protocol concepts and language
- After meetings, share additional input and expertise as needed
- Review draft protocol and provide written feedback to Reserve staff
- Be constructive, collaborative, and productive



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PROTOCOL CONSIDERATIONS



Eligible Livestock Categories

Dairy Cows

- Dairy and Non-milking dairy cows
- Heifers
- Bulls
- Calves (grazing)

Swine

- Nursery
- Growing
- Finished
- Male
- Non-breeding
- Breeding
- Lactating breeding

Eligible Livestock Categories

- Should chicken waste be eligible?
 - In the US, it is common practice to treat manure in dry form due to public health and environmental concerns
 - Is anaerobic digestion (AD) of poultry waste common practice? (i.e., AD baseline)
 - Anaerobic digestion leads to increased production of methane
 - Value as organic nitrogen fertilizer
 - Is it currently common practice to use poultry waste as an organic nitrogen fertilizer?
- Should beef cattle be eligible?
 - Is AD of beef cattle common practice?

Eligible Livestock Categories

- If yes to expanding livestock categories,
 - Does the baseline align with the protocol? If no, what is the common practice for this livestock?
 - Are there any current or potential Legal Requirements that will impact additionality?
 - Are there required changes to the GHG quantification section?
 - Additions or modifications to the monitoring and/or QA/QC requirements?
- Required datasets:
 - Typical average mass (TAM)
 - Volatile solids (VS_L) default value (is it applicable to all regions or differentiated by region?)
 - Maximum Methane Potential (B_0)
- Any other considerations we haven't raised?

Social and Environmental Safeguards

- **Free, Prior, and Informed Consent (FPIC)**

- Project developers must address the following topics with the livestock operator prior to project approval:
 - Concepts of climate change and carbon markets.
 - Requirements associated with livestock projects, including ongoing monitoring, reporting, and verification (MRV).
 - Estimates of costs and benefits associated with the livestock project and the division of costs and distribution of benefits or benefit sharing. The source used for carbon pricing estimates must be disclosed.
 - After the topics have been addressed, livestock operators must approve the livestock project under this protocol and the project developer

Feedback?

Social and Environmental Safeguards

- **Ongoing Notification, Participation, and Documentation:**
 - The project developer must review with the livestock operator on an annual basis the following topics:
 - Ongoing project activities, including MRV
 - Credits issued
 - Purchase agreements, project finances, and ongoing benefit sharing arrangements
 - Project notification and documentation must be presented to the livestock operator in an appropriate format and language to ensure understanding.
- **Labor and Safety:** The project developer must attest that the project is in material compliance with all applicable laws, including labor or safety laws.
- **No conflicts:** the livestock operator(s) and/or project developer must attest to having uncontested land title for the entire project boundary, including all livestock facilities directly associated with the carbon project.

Feedback?

Social and Environmental Safeguards

- The environmental safeguard requirements include:
 - **Regulatory Compliance:** The project developer must attest that the project is in material compliance with all applicable laws, including environmental regulations (e.g., air and water quality).
 - **Mitigation of Pollutants:** Projects must be designed and implemented to mitigate potential releases of pollutants that may cause degradation of the quality of soil, air, surface and groundwater and project developers must acquire the appropriate local permits prior to installation to prevent violation of all applicable laws

Feedback?

Anaerobic Baseline - Greenfields

- Greenfields: Projects that are implemented at new livestock facilities that have no prior manure management systems
 - Project developers must demonstrate uncontrolled anaerobic storage/treatment is common practice in the industry and geographic region where the project is located
- Are there any regions in the Dominican Republic where uncontrolled anaerobic storage and/or treatment is not common practice?

Site-Specific Determination of B_0 Value

- B_0 Value: Maximum Methane Potential
- Adopted in US protocol with consultation from experts since the default values for dairy cattle was very conservative.
- **Sampling schedule:** six samples at regular intervals throughout the day and combined to represent one sampling event for each livestock category separately. Samples taken at pre-defined month range.
 - Sample procedures vary depending on manure management system
 - Methane potential is positively correlated with milk production. To prevent overestimation, samples must be taken in average or below-average milk production periods.
- **Laboratory Requirements:** 3 years using Biochemical Methane Potential (BMP) Assay procedures and ISO 11734

Site-Specific Determination of B_0 Value

- Is there a dataset with monthly milk production trends to determine months for sampling?
 - If so, what months have average or below-average milk production?
 - If no, is there an alternative method that would be better suited for the Dominican Republic (DR) or should it be required to use default factor values?
- Is there a standard laboratory certification scheme pertaining to BMP Assay?
 - If not, are there suggested changes to the current analysis methodology?
- Do labs in DR have the required experience outlined in Section 6.1?
 - Experience with testing and ISO 11734 and at least 3 years of experience with BMP assay?
- Other comments on the B_0 sampling and analysis methodology outlined in the draft?



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NEXT STEPS

Next steps

- ***For Interested Stakeholders:***
 - Still can submit Local Engagement Form
 - Email interest to sign up for updates as an observer
 - Email us feedback anytime
- ***For Reserve:***
 - Compile notes summary on discussion
 - Post recording, notes, and presentation to the webpage
 - Incorporate feedback from workgroup discussion
 - Identify areas of focus for next workgroup meeting (if needed)
- ***For Workgroup:***
 - Email feedback on today's discussion or protocol draft review (by **February 28th**)
 - Look out for information for next meeting's discussion topics
 - Tentative next Workgroup Meeting: **March 9th**

Key contacts

- ***Climate Action Reserve:***

Protocol development lead:

Rachel Mooney, Analytical Associate

Email: rmooney@climateactionreserve.org

Amy Kessler, Director of Latin America

Email: Akessler@climateactionreserve.org

Claudia Jurado, Analytical Associate LATAM

Email: cjurado@climateactionreserve.org



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THANK YOU!