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Argentina Livestock Protocol V1.0

Workgroup Meeting 1

April 11, 2024

Introduction



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- 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

AGENDA

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



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INTRODUCTIONS

Climate Action Reserve

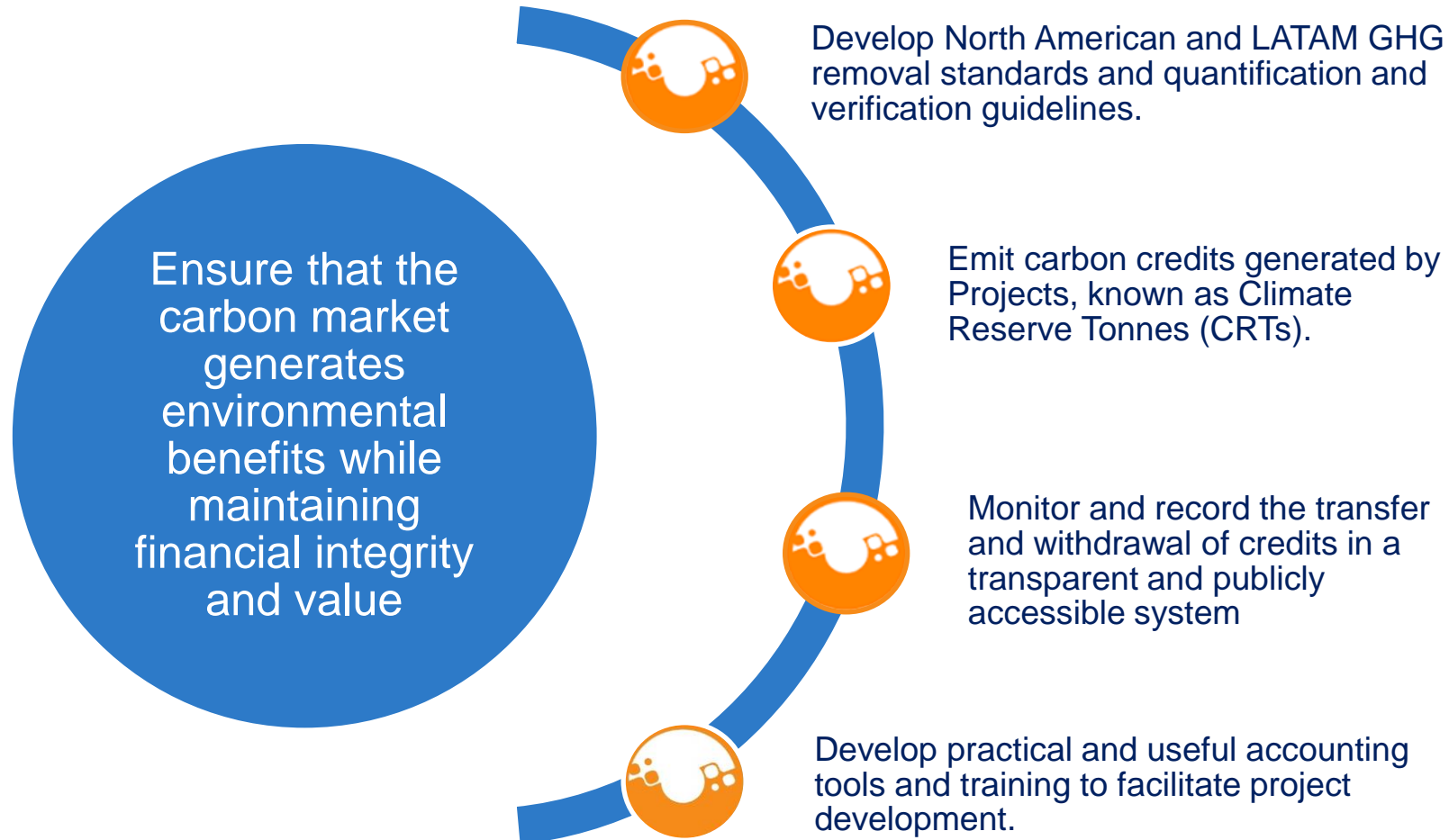


- Mission: to develop, promote and support innovative, credible market-based climate change solutions that benefit economies, ecosystems and society
- Develop high-quality, stakeholder-driven, standardized carbon offset project protocols across North America and Latin America
- Accredited Offset Project 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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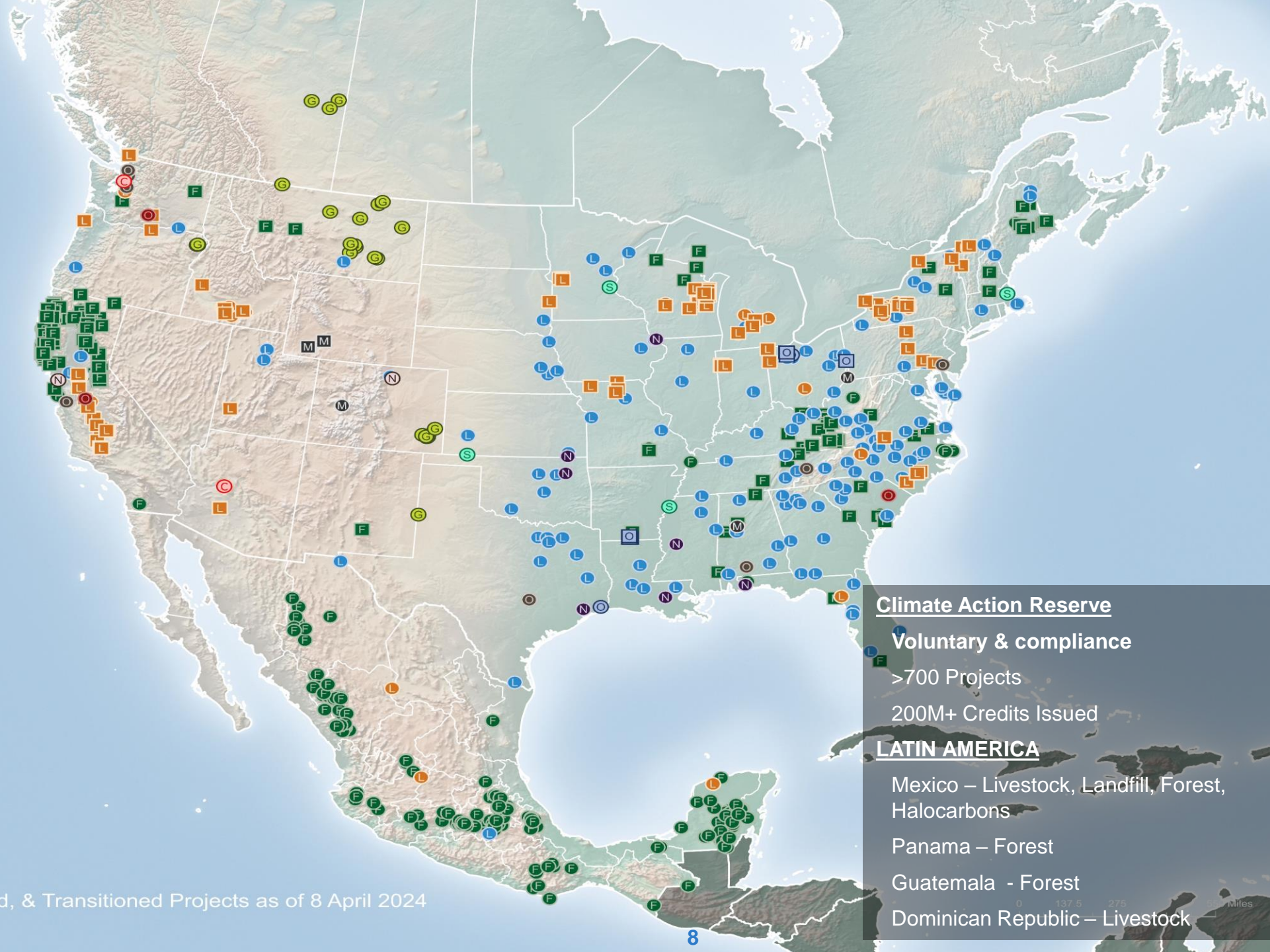




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- A Adipic Acid
- F Forest
- F Forest (ARB)
- G Grassland
- L Landfill
- L Livestock
- L Livestock (ARB)
- M Mine Methane
- M Mine Methane (ARB)
- N Nitric Acid Production
- N Nitrogen Management
- O Organic Waste Composting
- O Organic Waste Digestion
- O Ozone Depleting Substances
- O Ozone Depleting Substances (ARB)
- S Soil Enrichment
- C Low Carbon Cement

911 Listed, Registered, Completed, & Transitioned Projects as of 8 April 2024



Climate Action Reserve
Voluntary & compliance
 >700 Projects
 200M+ Credits Issued

LATIN AMERICA

Mexico – Livestock, Landfill, Forest, Halocarbons
 Panama – Forest
 Guatemala - Forest
 Dominican Republic – Livestock

Principles of the Reserve Program

All registered projects and credits issued by the Reserve must be:

ADDITIONAL

- Beyond common practices
- Beyond regulatory requirements

VERIFIED

- Standardized eligibility criteria and quantification methodologies
- Independent third-party review.

REAL

- Conservative emissions accounting
- Prescriptive models and equations
- Uncertainty reduction

PERMANENT

- Monitoring and reporting processes
- Any leakage or loss is quantified and compensated

ENFORCEABLE

- Processes to ensure program compliance
- Accountability mechanisms

- The Reserve seeks to be practical and ensures that projects do not have negative impacts
- The standards include social and environmental safeguards to ensure the participation and benefit of the participants

Two elements:

- Determination of project eligibility and additionality using standardized criteria rather than project-specific assessments.
- Quantification of GHG reductions/removals through a baseline established under certain assumptions, emission factors and monitoring methods.

Objectives:

- Minimize personal judgment in project assessment
- Reduce transaction costs for the project developer, minimize uncertainties for investors, and increase the transparency of the project when it is approved and verified

Workgroup Members

Organization (Alphabetical)	Name
Bret Consultores	Rene Ibarra
Displaced Carbon Committee - Government of Córdoba	Marine Iriart
Ecosecurities	Federico Fritz
Génesis	Laura Garzón
HINS Energía	Javier Slythe
MEXICO2	Yulissa Camacho
Ministry of Infrastructure and Public Services of Córdoba	Pablo Gabutti
Ministry of Bioagroindustry of Córdoba	Catalina Boetto
National Technological University	Ariel Clebañer
National University of La Plata	Guillermo Piovano
Secretariat for Energy Transition - Ministry of Infrastructure and Public Services of Córdoba	Juan Martin Lemos
Secretary of Energy Planning	Pamela Zanel
SEGAM – Responsabilidad Ambiental	Marcos Cena
Subsecretary of the Nation's Environment	Agustina Cundari



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PROCESS OVERVIEW

Purpose

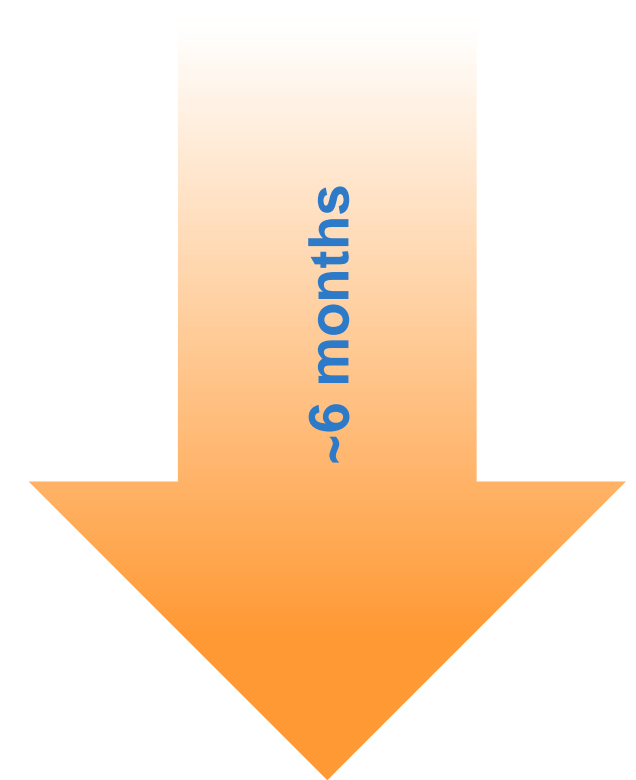
- To familiarize workgroup members with offset protocol development process – what we typically want in an offset protocol
- To present and solicit feedback from workgroup members on key considerations for the Argentina Livestock Protocol Version 1.0
- Provide draft protocol for reference and then revisions

Protocol Development Overview

- **GOAL:** To create a robust Argentina 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, Dominican Republic, and Mexico Livestock protocols
 - Solicit and incorporate expert stakeholder feedback

Protocol Development Timeline

1. Kick-off meeting (*March 7, 2024*)
2. Workgroup process
 - Formation (*March 2024*)
 - Meeting 1 (*today – April 11*)
 - Meeting 2 (*April 24, 2024 – tentative*)
 - Meeting 3 (*as needed, May 2024 – tentative*)
3. 30-day public comment period (*June-July 2024*)
4. Propose to Board adoption (*October 2024*)



Timeline Process Detail

	Mar	Apr	May	Jun	July	Aug	Sep	Oct
Public webinar	7 th							
Workgroup formation								
1st workgroup meeting (webinar)		11 th						
Drafting/content development								
2nd workgroup meeting (webinar)		24 th ?						
3rd workgroup meeting (webinar)- as needed								
Drafting/content development								
Public comment period & webinar (30 days)								
Staff revisions based on feedback								
Internal reviews/formatting								
Deliver Board draft								
Public Board meeting								4 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

Project Definition

- Installation of a biogas control system (or “digester”) that captures and destroys methane gas from anaerobic manure treatment and/or storage facilities on livestock operations
 - Dairy cattle, beef cattle, and swine operations
- Captured biogas must be destroyed, either through:
 - on-site destruction device (e.g., flare, engine)
 - transported for off-site use (e.g., gas distribution or transmission pipeline), or
 - used to power vehicles
- Allows for centralized digesters that integrate waste from multiple livestock operations
- Greenfield Livestock operations: projects that are implemented at new livestock facilities that have no prior manure management system

Project Ownership

- Project developer is an entity with an active account on the Reserve and is responsible for all project monitoring and verification. Project developers can be:
 - Livestock facility owners and operators
 - GHG Project financiers,
 - Or other entities
- Must have clear ownership of the reductions and established through explicit title and must sign the Attestation of Title
 - May be contracts in place between facility owner and project financiers
 - **What documents should verifiers review to confirm ownership of facilities in Argentina?**

Eligibility Rules

Eligibility Rule I: Location

Eligibility Rule II: Project Start Date

Eligibility Rule III: Project Crediting Period

Eligibility Rule IV: Anaerobic Baseline

Eligibility Rule V: Additionality

Eligibility Rule VI: Regulatory Compliance

IV. Anaerobic Baseline

- Must demonstrate depth of lagoons pre-project are 1 meter in depth
 - Sufficient to prevent algal oxygen production and create oxygen-free bottom layer
- Designed and maintained with sufficient volume to properly treat volatile solids and prevent solids from accumulating
- Is there a handbook or regulation that provides guidance on the design and maintenance of anaerobic wastewater treatment systems for Argentina?

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 Argentina where uncontrolled anaerobic storage and/or treatment is not common practice?

V. Additionality

- Must be above and beyond business-as-usual scenarios
- Must pass two additionality eligibility rules
 1. Performance Standard Test
 - Standard of performance applicable to all manure management projects
 - Better than business-as-usual
 - Practice-based threshold, installing a BCS passes this test
 2. Legal Requirements Test
 - Passes when there are no laws, statutes, regulations, court orders, environmental mitigation agreements, permitting conditions, or other legally binding mandates requiring project activities
 - No longer eligible on the date destruction becomes legally required

VI. Regulatory Compliance

- Must attest that the project is in compliance with all laws applicable to the project activity
- Required to disclose any and all instances of legal violations – material or otherwise – caused by the project or project activities
 - “caused” by Project activities if it can be reasonably argued that a violation would not have occurred in the absence of the project activities
- If a violation is caused by project activities, credits will not be issued for the period of the violation
 - Administrative or violations due to “acts of nature” will not impact crediting
 - Re-occurring violations due to intent or negligence may impact crediting
- For projects with multiple discrete source facilities (from BCS Project in both location and management), it may be possible to demonstrate a violation occurring at one source facility does not impact the eligibility of the entire project

Eligible Livestock Categories

- Dairy Cows, Beef Cows, and Swine
 - Reserve asks WG members to provide sources to review eligible livestock categories applicable to Argentina
- Do you agree with the eligible livestock categories?
 - Are there concerns regarding these categories to meet the baseline?
 - Are there any current or potential Legal Requirements that will impact additionality?
 - Required datasets: Typical Average Mass (TAM): Reserve will follow up with WG to review table B.2. independently and provide feedback
- Any other considerations we haven't raised?

Social and Environmental Safeguards

- Social Safeguards
 - Free, Prior, and Informed Consent (FPIC)
 - Ongoing Notification, Participation, and Documentation
 - Labor and Safety
 - Dispute Resolution
- Environmental Safeguards
 - Air and Water Quality
 - Mitigation of Pollutants
 - Animal Welfare

- **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 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.
 - Is there a specific law regarding the safety and labor of livestock operators?
 - Is there a regulatory agency the VB could contact to confirm compliance with the law?
- **Dispute Resolution/ No Conflicts:** The Reserve holds 30-day public comment on all listed projects prior to registration and has an ongoing dispute resolution process. Projects that receive material complaints will not be registered until a satisfactory dispute resolution plan has been approved.

Feedback?

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, water quality, animal welfare).
 - What regulatory body oversees environmental regulations?
 - Is there a regulatory agency/ body the VB could contact to confirm compliance with the law?
 - **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?

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 Argentina 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 Argentina 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



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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 (by **April 22nd**)
 - Look out for information for next meeting's discussion topics
 - Tentative next Workgroup Meeting: **April 24th , 4:00-6:00 ARG time– Comments?**

Key contacts

- ***Climate Action Reserve:***

Protocol development lead:

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THANK YOU!