# Ecosystem Services Market:
# Scaling Land Stewardship Outcomes

*Growing resilience in our nation's soil*

Debbie Reed, DRD Associates LLC
ACES 2018 – A Community on Ecosystem Services
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# Topics Covered

- Protocol Development
  - Process, Status
- Piloting & Program Expansion

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# NRI ESM Protocols

# Protocol Development Principles

- Farmer-based, farmer-facing
- Science-based, outcomes-based, standards driven
- Transparent & open
- Recycle & upcycle by assessing, innovating
  - Recycle:
    - No reinventing wheels: learn from the past
  - Upcycle:
    - Innovate, meet needs of credit suppliers, buyers
    - Acknowledge, embrace biological agroecosystems
    - Technology a key part of our upcycling strategy

# Priority Elements of Protocols

- Additionality
- Permanence
- Legal Considerations
- Transparency
- Scalability
- Scientific Rigor
- Standards Based
- Farmer Facing

# Protocol Development Timeline

- **2017 –** NRI convening assessed C markets; decision to launch NRI ESM Program
- **January 2018 –** Protocol RFP developed, draft shared with 4 C market registries
- **February 2018 –** Protocol RFP released
- **June 25, 2018 -** Protocol Development Contract awarded
- **December 2018** –First Order protocol completed for use in Southern Great Plains rangeland & pastureland & cropping systems
- **January – December 2019** – Phase I protocol field-tested on NRI Land Stewardship Program ranches spanning 50,000 acres in Oklahoma & Texas
- **January 2019 –** Protocol expansion & piloting in additional US geographies & agricultural production system begins & continues through 2022 National Program Launch
- **January-June 2020 –** Scientific peer review & public comment period for protocol, followed by publication of final version

# 5 Protocol Design Phases

**Phase 1: Assessment Phase (July – August 2018)**

*Step 1* – Assess relevant market-based protocols

*Step 2* – Assess relevant quantification tools & methodologies

**Phase 2: Innovation & Drafting Phase (September – December 2018)**

*Step 3* – Develop tiered crediting approach

*Step 4* – Develop C/W/W modules

*Step 5* – Test protocol design with potential buyers

*Step 6* – Develop integrated ESM protocol

**Phase 3: Pilot (January – December 2018)**

*Step 7* – Pilot test protocol on NRI LSP ranches in OK, TX

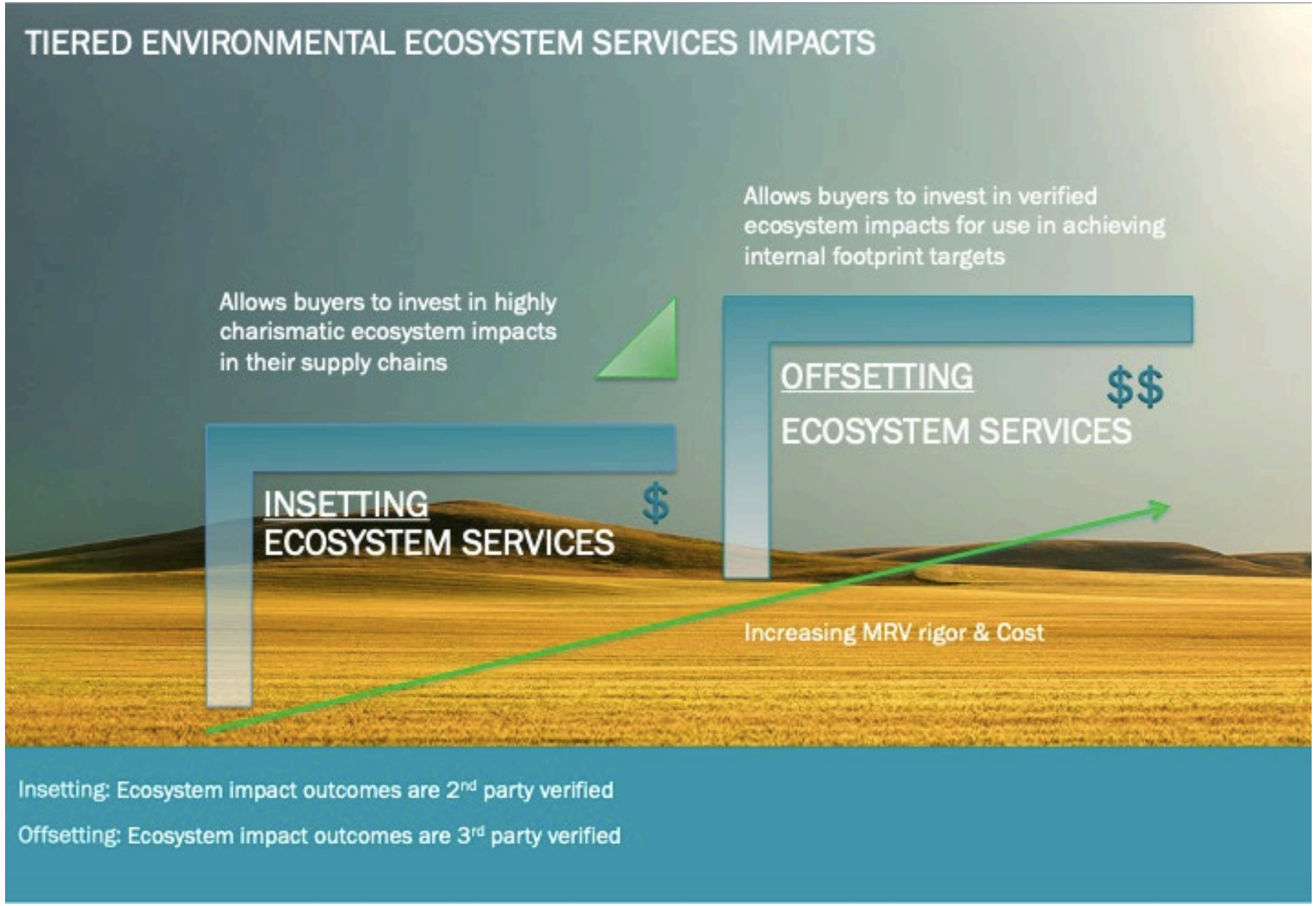
**Phase 4: Expansion (January 2019 & beyond)**

*Step 8* – Adapt & pilot protocol in additional production systems & geographies

**Phase 5: Review & Publication (January – June 2020)**

*Step 9* – Scientific peer review and public comment periods

# Context


TIERED ENVIRONMENTAL ECOSYSTEM SERVICES IMPACTS
Allows buyers to invest in verified ecosystem impacts for use in achieving internal footprint targets
Allows buyers to invest in highly charismatic ecosystem impacts in their supply chains
OFFSETTING
ECOSYSTEM SERVICES
$$
INSETTING
ECOSYSTEM SERVICES
$
Increasing MRV rigor & Cost
Insetting: Ecosystem impact outcomes are 2nd party verified
Offsetting: Ecosystem impact outcomes are 3rd party verified

# Crediting Approaches

| Approach | Definition |
|---|---|
| **Blended** | Combining multiple attributes into a single credit (e.g. a Soil Health Credit). |
| **Stacked** | Bundling credits across attributes to be sold together (e.g. a carbon inset credit tagged with a water quality benefit). |
| **Disaggregated** | Each credit is transacted separately. |

# MRV Platform

- A windows-based App is being developed to facilitate data collection, management, verification, quantification
- App allows simple data entry & automated outputs: scenario building & modeled estimates over time
- NRI ESM is developing in parallel a technically advanced platform to enable cost-effective, scalable MRV of outcomes-based attributes
- Advanced analytical capabilities, satellite imagery, remote sensing, gridded land ledger

# Pilot Project Planning

- Goals:
  - Expand & adapt protocols for additional production systems & geographies
  - Scale soil health outcomes & ESM program

- Timeline:
  - LSP pilot 2019 calendar year
  - Protocol adaptations for expansion into new production systems & geographies will begin in Jan 2019
  - Pilot can begin when protocol adaptations completed

# Pilot Project Planning

Criteria for Pilot Planning Process:

- ✓ Scale
- ✓ Collaborators
- ✓ Partners / Buyers
- ✓ Multiple Ecosystem Service Attributes
- ✓ Funds availability
- ✓ Geographic areas with relevance
- ✓ Existing protocols / market experience
- ✓ Baseline data, data to populate models
- ✓ Technical assistance

*QUESTIONS?*

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# Scope 3 Standards & Guidelines

**Standards and Guidance documents reviewed*:**

- American Society of Agricultural and Biological Engineers (ASABE), *Framework to Evaluate the Sustainability of Agricultural Production Systems*, June 2016
- Certified B Corporation (B Corp), ClimateCare Carbon Offsetting
- Carbon Disclosure Project (CDP), *Carbon Pricing: CDP Disclosure Best Practice*, 2018
- Global Reporting Initiative (GRI), *GRI 305: Emissions 2016*
- Gold Standard (GS), *Value (Scope 3) Interventions – Greenhouse Gas Accounting & Reporting Guidance*, June 2018 Consultation Draft
- Science Based Targets Initiative (SBTi), *Sectoral Decarbonization Approach (SDA): A* method for setting corporate emission reduction targets in line with climate science, May 2015
- The Climate Registry (TCR), *General Reporting Protocol,* Version 2.1
- World Resources Institute (WRI), *Corporate Value Chain (Scope 3) Accounting and Reporting Standard*

# Scope 3 Reporting Compliance

| | Tier 1A<br>Stored C | Tier 1B<br>Inset Credits | Tier 2<br>Offset Credits |
|---|---|---|---|
| ASABE | - | X | X |
| B Corp | - | X | X |
| CDP* | - | X | X |
| GRI | - | X | X |
| GS* | - | X | X |
| SBTi* | - | X | - |
| TCR* | - | - | X |
| WRI* | - | X | X |