SilvaCarbon

Building Capacity Worldwide in Measuring, Monitoring, & Managing Forest and Terrestrial Carbon

Program Overview

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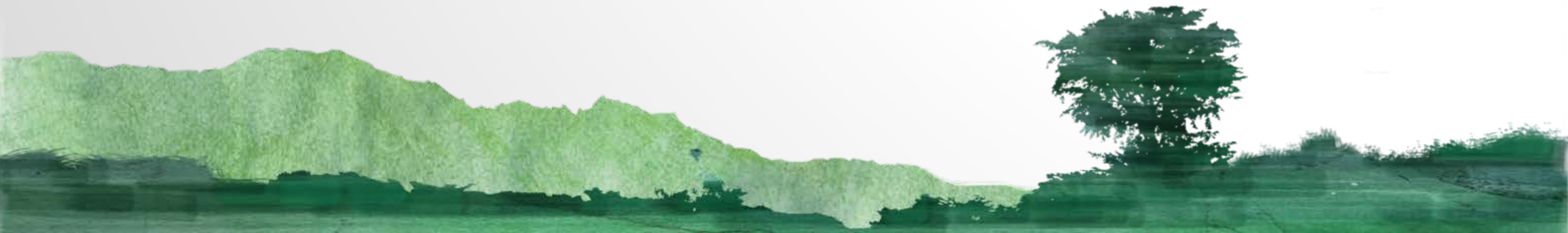*Slides courtesy Moses Jackson, USFS*

OVERVIEW

1. What is SilvaCarbon?

2. Who is involved in SilvaCarbon?

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4. What does SilvaCarbon do?

5. Examples from the Andean Amazon

6. Current Work

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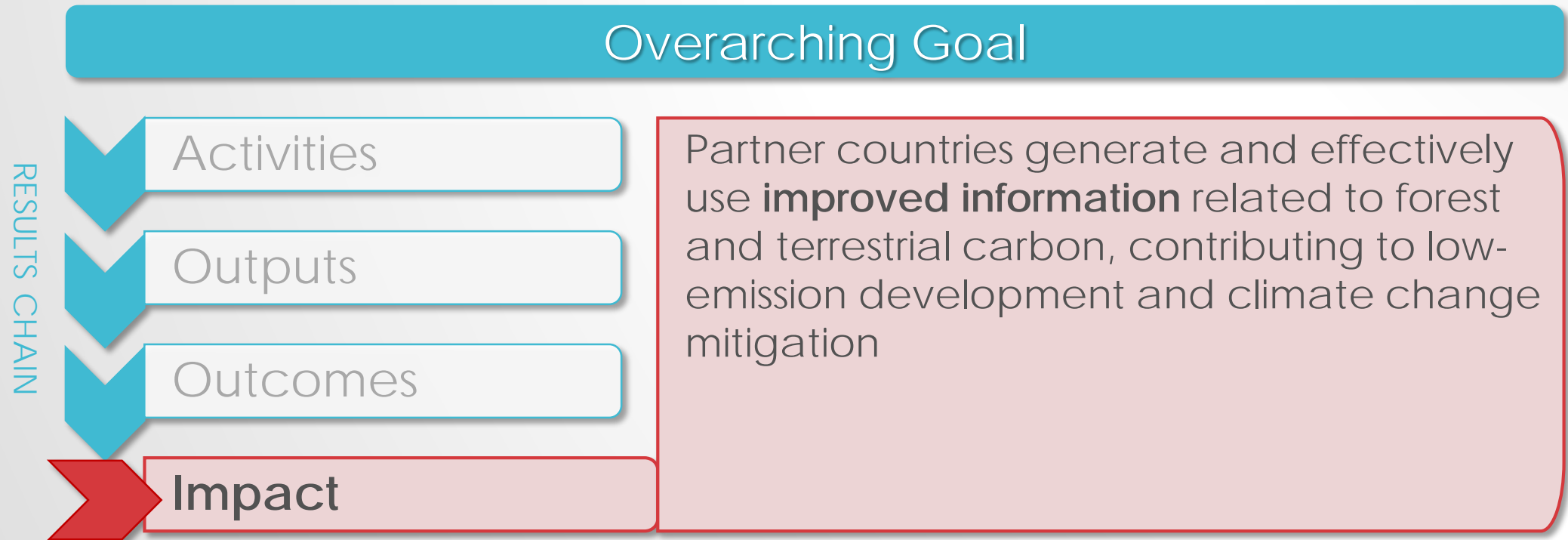
WHAT IS SILVACARBON?

A technical cooperation program of the US Government to build capacity worldwide in measuring, monitoring, and managing forest and landscape changes, including changes in forest and terrestrial carbon.
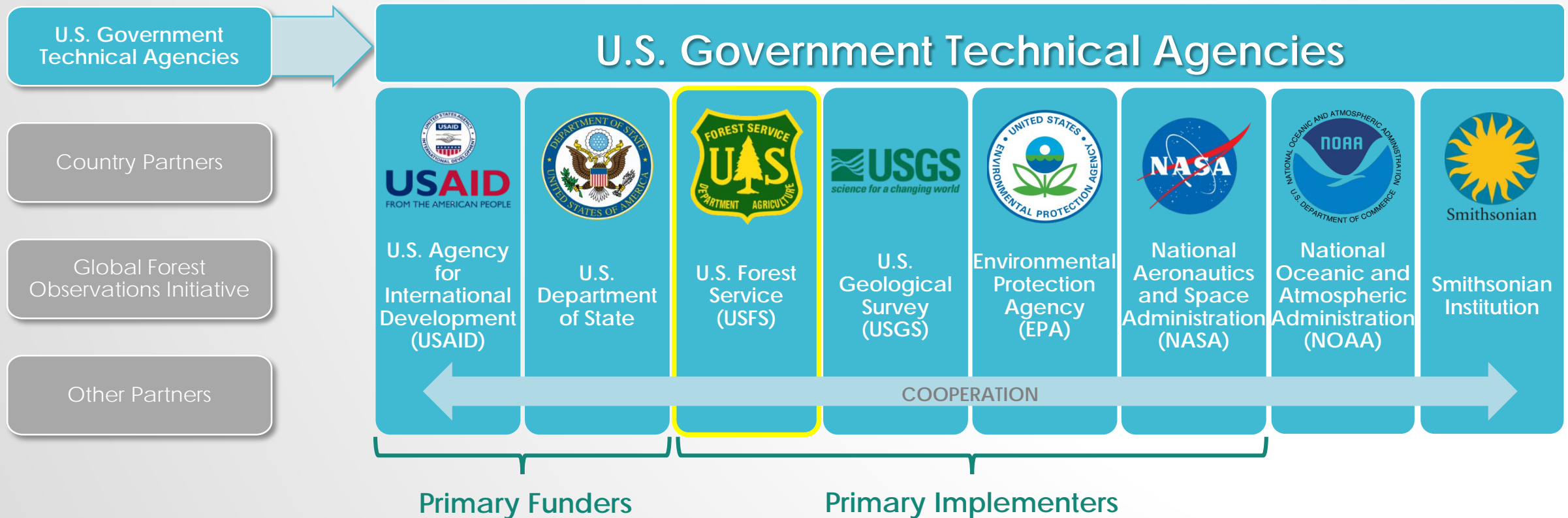
Key characteristics:

- Interagency: provides integrated support from multiple US agencies and partners

- Needs-based: fills technical capacity gaps, serves as a flexible science delivery tool

- Collaborative: facilitates cooperation at national, regional, and international scales

WHAT IS SILVACARBON?

Overarching Goal

RESULTS CHAIN

- Activities
- Outputs
- Outcomes
- **Impact**

Partner countries generate and effectively use **improved information** related to forest and terrestrial carbon, contributing to low-emission development and climate change mitigation

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WHO IS INVOLVED IN SILVACARBON?

U.S. Government Technical Agencies

Country Partners

Global Forest Observations Initiative

Other Partners

U.S. Government Technical Agencies

| U.S. Agency for International Development (USAID) | U.S. Department of State | U.S. Forest Service (USFS) | U.S. Geological Survey (USGS) | Environmental Protection Agency (EPA) | National Aeronautics and Space Administration (NASA) | National Oceanic and Atmospheric Administration (NOAA) | Smithsonian Institution |

COOPERATION

Primary Funders   Primary Implementers

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WHO IS INVOLVED IN SILVACARBON?

U.S. Government Technical Agencies

Country Partners

Global Forest Observations Initiative

Other Partners

Country Partners

- Forestry departments
- Mapping authorities
- Space data agencies
- REDD+ Units
- NGOs
- National Universities

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WHO IS INVOLVED IN SILVACARBON?

U.S. Government Technical Agencies

Country Partners

Global Forest Observations Initiative

Other Partners

Global Forest Observations Initiative (GFOI)

- International consortium focused on increasing the use and availability of remote sensing data and tools for national forest monitoring

- SilvaCarbon is the primary US contribution to GFOI, with USGS and USAID as lead representatives

- SilvaCarbon co-leads the GFOI Capacity-Building component with FAO
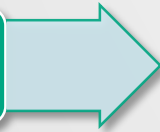
Sylvia Wilson, USGS

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WHO IS INVOLVED IN SILVACARBON?

U.S. Government Technical Agencies

Country Partners

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Other Partners

Other Partners

- Academia
  - University of Maryland, Boston University, Wageningen, etc.

- Other donors and multilaterals
  - FAO, UN-REDD, World Bank, GIZ, etc.

- NGOs

- Companies

Matt Hansen, UMD

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Innovative Solutions for Monitoring Forest Carbon

SilvaCarbon Research Workshop on Advancing Climate Action through Improved Information

Workshop Objectives:
- Share SilvaCarbon research findings to strengthen forest monitoring science and REDD+ capacity-building
- Foster collaboration among REDD+ and forest monitoring researchers, donors, and practitioners
- Identify next steps for research implementation

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WHERE DOES SILVACARBON WORK?

Latin America & the Caribbean

Costa Rica
Dominican Rep.
El Salvador
Guatemala
Honduras
Nicaragua
Panama

Colombia
Ecuador
Peru

AFRICA
Cameroon
Dem. Rep. of Congo
Rep. of Congo
Gabon
Mozambique

Asia
Bangladesh
Cambodia
Indonesia
Lao PDR
Nepal
Philippines
Thailand
Vietnam

23 tropical forested countries in FY17

WHERE DOES SILVACARBON WORK?

➢ Mixture of regional, bilateral, and global-level programming, depending on needs and opportunities

- Africa Programs – *mainly bilateral*

- Asia Regional Program – *mainly regional, some bilateral*

- Bangladesh Program – *bilateral*

- Vietnam Program – *bilateral*

- Latin America Program – *regional + bilateral*

- Global Program – *global-level activities, coordination*

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WHAT DOES SILVACARBON DO?

➢ Provides US technical expertise to assist countries to develop **national forest monitoring systems** (NFMS) that are robust, cost-effective, and tailored to their needs

➢ NFMS produce vital information on **forest change,** including forest carbon change, essential for:

☑ Improving decision-making in the land sector

☑ Participating in REDD+

☑ Fulfilling emissions reductions commitments

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WHAT DOES SILVACARBON DO?

Capacity-Building Focal Areas
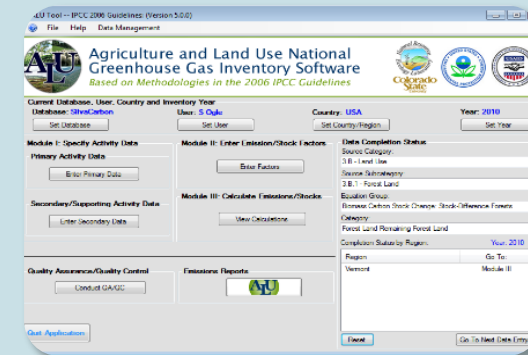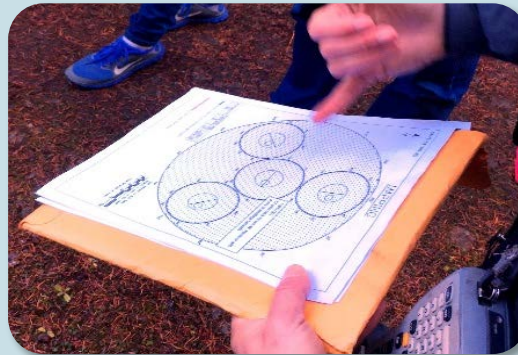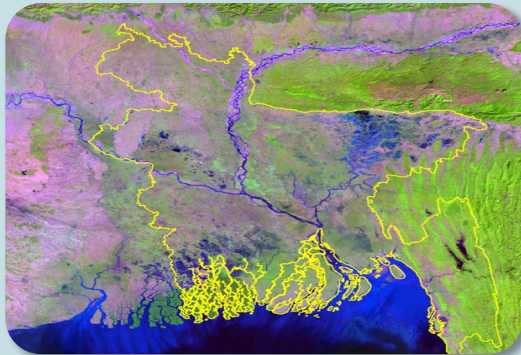
Remote Sensing
- Analysis and acquisition of spatial data on landscape change

Forest Inventory
- Design and implementation of ground-based forest surveys

GHG Inventory
- Estimation and reporting of GHG emissions from the land sector

INTEGRATION

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WHAT DOES SILVACARBON DO?

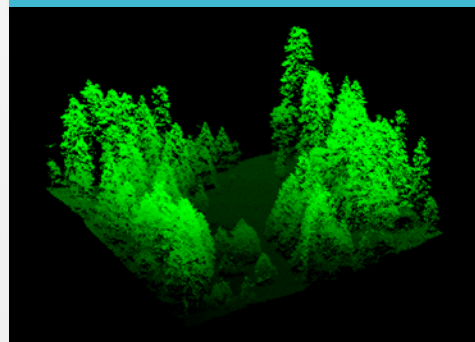## Capacity-Building Activities
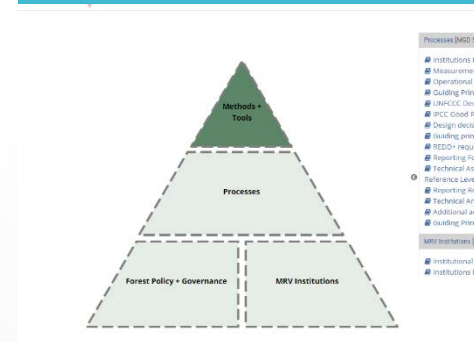

Technical Assistance

Workshops
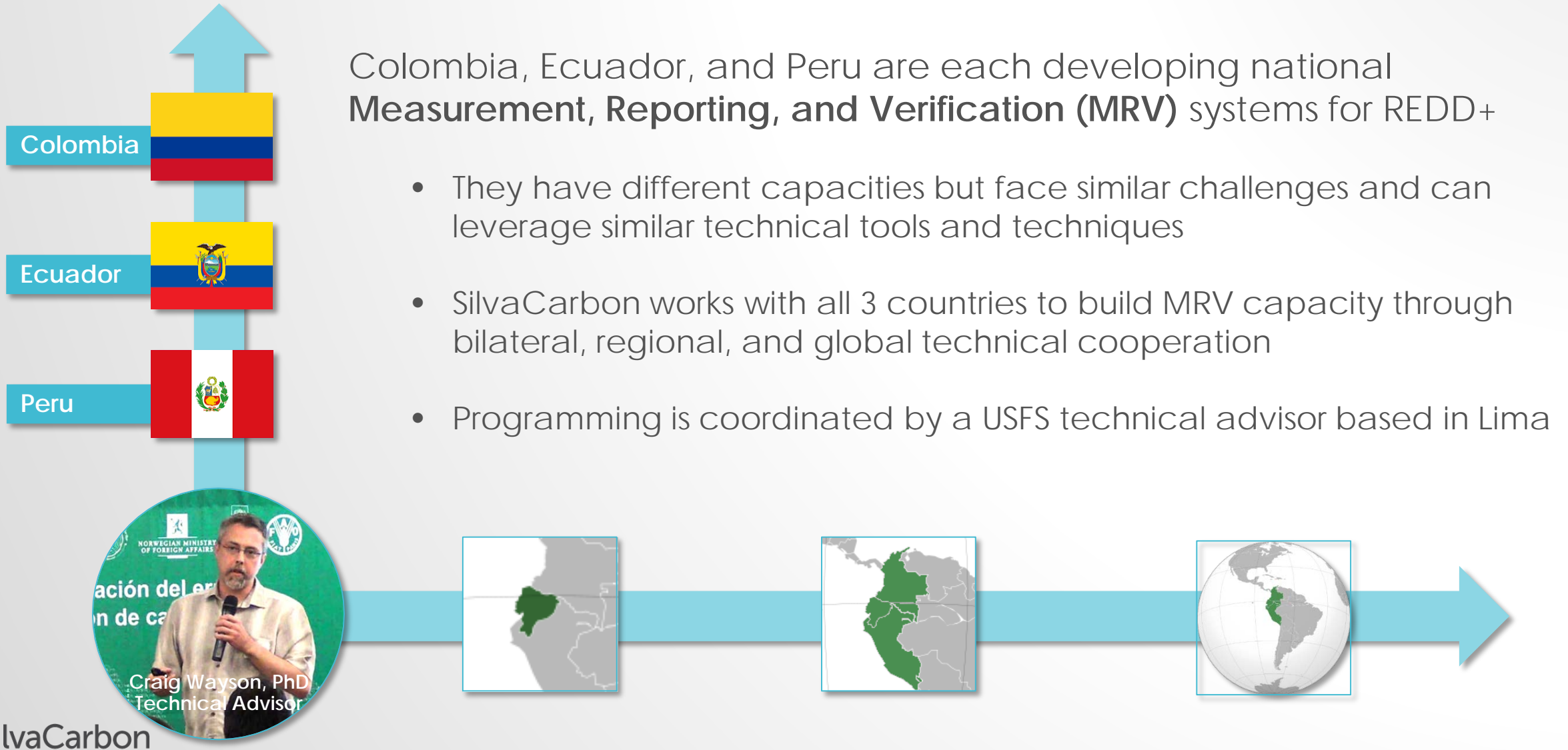

Study Tours

South-South Exchange

Applied Research

Tools & Guidance

SILVACARBON IN THE **ANDEAN AMAZON**
ILLUSTRATIVE EXAMPLES

Colombia

Ecuador

Peru

Craig Wayson, PhD
Technical Advisor

Colombia, Ecuador, and Peru are each developing national **Measurement, Reporting, and Verification (MRV)** systems for REDD+

- They have different capacities but face similar challenges and can leverage similar technical tools and techniques

- SilvaCarbon works with all 3 countries to build MRV capacity through bilateral, regional, and global technical cooperation

- Programming is coordinated by a USFS technical advisor based in Lima

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SILVACARBON IN THE ANDEAN AMAZON
## ILLUSTRATIVE EXAMPLES

Regional Interaction
USGS organizes GFOI workshop to showcase forest monitoring tools & approaches, identify country needs, and build the regional community of experts

Bilateral Collaboration
Based on Colombia's identified needs, USFS organizes two-month technical detail by a forest inventory expert to assist with the redesign of the NFI
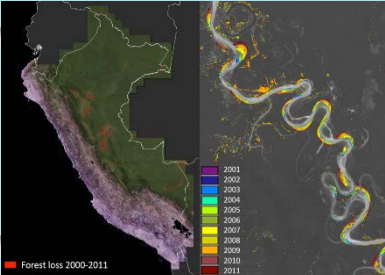
Partner Support
USGS supports UMD to work with the three countries to implement UMD's forest mapping methodology and provide related tools and training

South-South Exchange
Through SilvaCarbon, Peru and Ecuador collaborate with Colombia on its NFI redesign, and Colombia shares its mapping protocols with Ecuador and Peru

Global Engagement
USFS and USGS organize an international forum to share new SilvaCarbon research findings with the global SilvaCarbon community, including country practitioners

SILVACARBON IN THE ANDEAN AMAZON
ILLUSTRATIVE EXAMPLES

➢ **Results** achieved with SilvaCarbon technical support:

Peru finalized its first large-scale forest-change map series, and is completing the first phase of its national forest inventory

Ecuador completed its first national forest inventory and now is working on its second cycle. It also completed its first forest-change map for an area typically covered by clouds

Colombia is able to generate estimates of forest cover change annually for the first time, and is implementing a national forest inventory

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CURRENT WORK

- Strategic priorities from FY17 include:

  - Fostering **transparency** in forest/terrestrial carbon data

  - Strengthening national monitoring systems to address **multiple objectives** and respond to evolving **country needs**

  - Assisting countries to meet their **national and international commitments**

  - Increasing collaboration with and through **GFOI**

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CURRENT WORK

FY17 Work Plan Activities, by Country/Region and Outcome

	OUTCOME 1 Enhanced capacity to measure/ monitor/report landscape carbon	OUTCOME 2 Enhanced use of data in decision & policy making	OUTCOME 3 Strengthened cooperation & agreement	TOTAL # of activities
Asia Regional	7	2	4	13
Vietnam	10	1	3	14
Bangladesh*	-	-	-	19
Cameroon	7	-	1	8
ROC	2	-	1	3
DRC	2	-	1	3
Gabon	2	-	-	2
Mozambique	1	-	1	2
Central America	4	-	2	6
Andean Amazon	2	-	4	6
Global Program	9	-	12	21
*The Bangladesh Program contributes to separate, complementary Outcomes developed in collaboration with USAID/Bangladesh and FAO				97

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FUTURE WORK/INFO

- Continue to work in program areas but moving to more advanced methods where applicable and with partner interest (e.g. AFOLU GHG estimation frameworks – Colombia {IDEAM}, time-series analysis)

- Support for NDC achievement (e.g. policy effects on emissions, restoration)

- Current funding levels into FY18…

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FOLLOW-UP INFO

➢ SilvaCarbon Spotlight e-newsletter: http://goo.gl/sSGDFL

➢ SilvaCarbon website: www.silvacarbon.org (under development)

➢ USFS Global Program contacts:

- Alex Moad, amoad@fs.fed.us
- Sasha Gottlieb, sbgottlieb@fs.fed.us
- Moses Jackson, mosesmjackson@fs.fed.us

➢ Other Global Program contacts:

- USGS: Sylvia Wilson, snwilson@usgs.gov
- NASA-SERVIR: Africa Flores, africaixmucane.florescordova@nasa.gov
- EPA: Mausami Desai, desai.mausami@epa.gov

Smithsonian

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