

Collaborating to Address Climate Change Around the Globe

An overview of two US Government programs:

- SilvaCarbon
- Climate Fellows



Sasha Beth Gottlieb
US Forest Service, International
Programs Office



SilvaCarbon

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

Program Overview



OVERVIEW



1. What is SilvaCarbon?
2. Who is involved in SilvaCarbon?
3. Where does SilvaCarbon work?
4. What does SilvaCarbon do?
5. Strategic Priorities
6. Current Work
7. Follow-up info

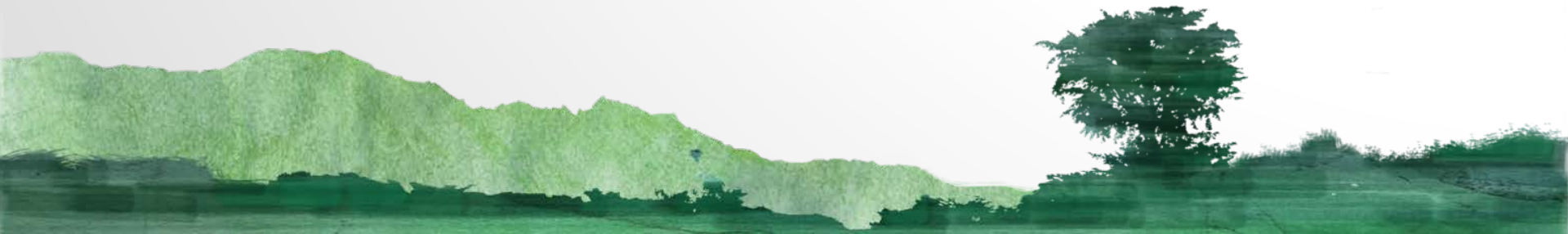


WHAT IS SILVACARBON?

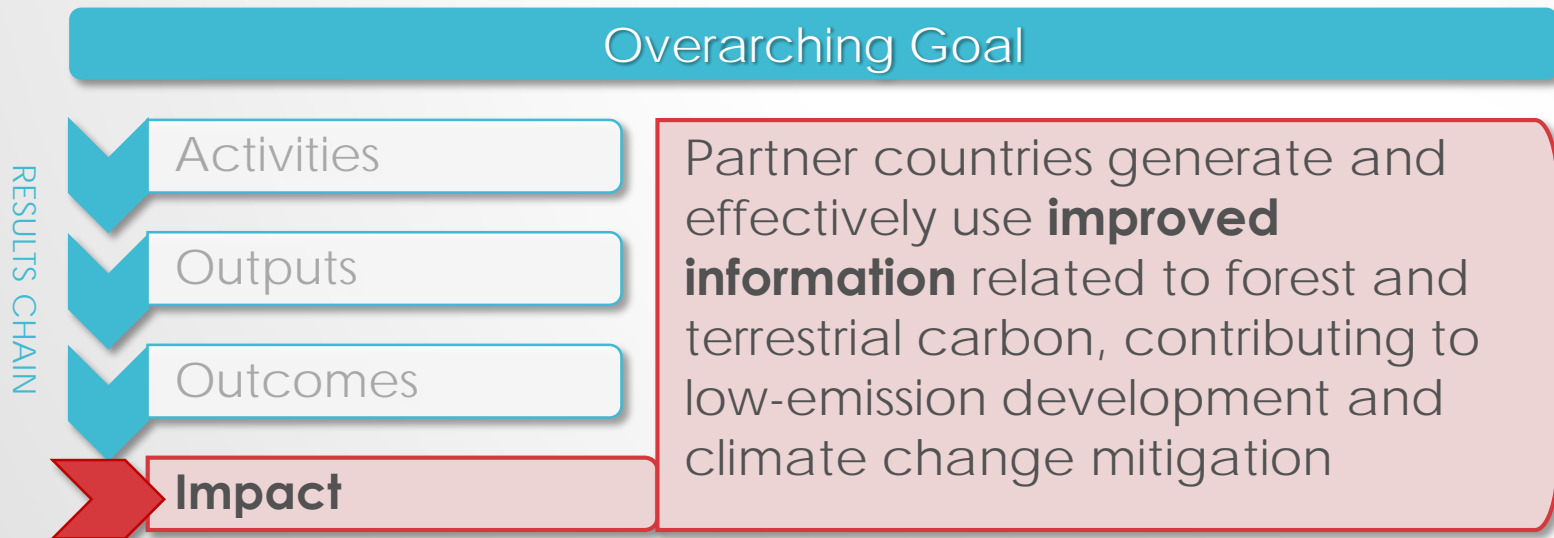
A flagship technical cooperation program of the US Government to build capacity worldwide in measuring, monitoring, and managing forest and terrestrial carbon.

Key program characteristics:

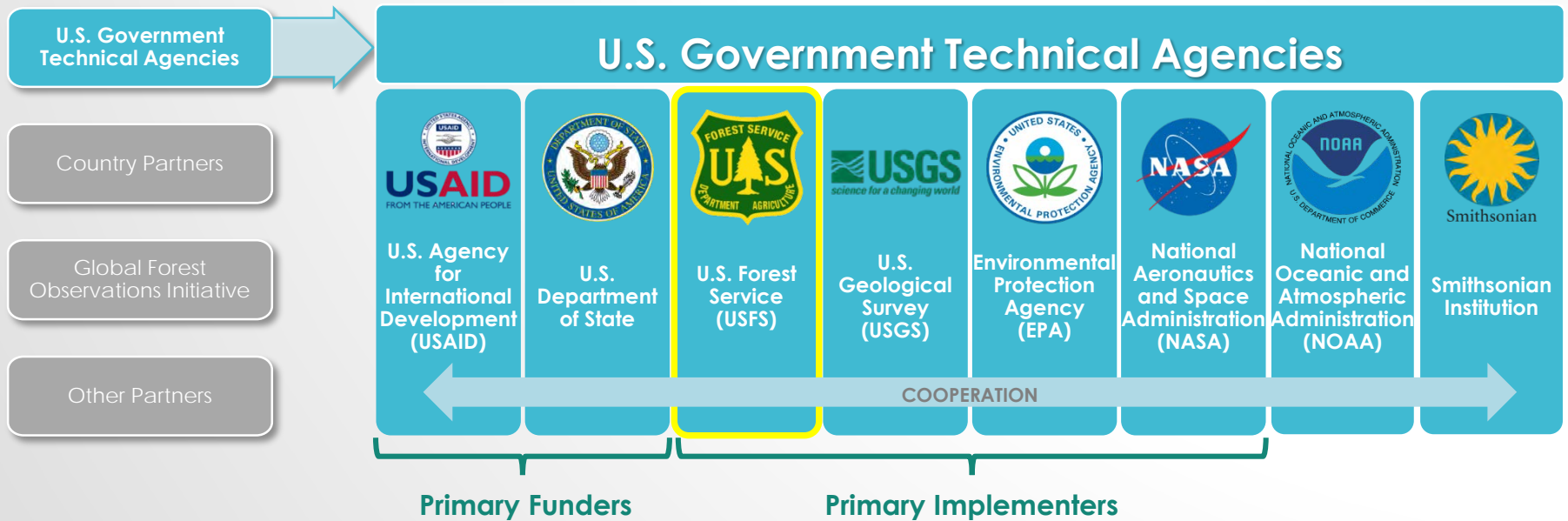
- Interagency: provides coordinated support and messaging from multiple US agencies
- Needs-based: fills technical capacity gaps, serves as a flexible science delivery tool
- Collaborative: facilitates cooperation at national, regional, and international scales



WHAT IS SILVACARBON?



WHO IS INVOLVED IN SILVACARBON?



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



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 as lead SilvaCarbon representative
- SilvaCarbon co-leads the GFOI Capacity-Building component with FAO



Sylvia Wilson, USGS

WHO IS INVOLVED IN SILVACARBON?

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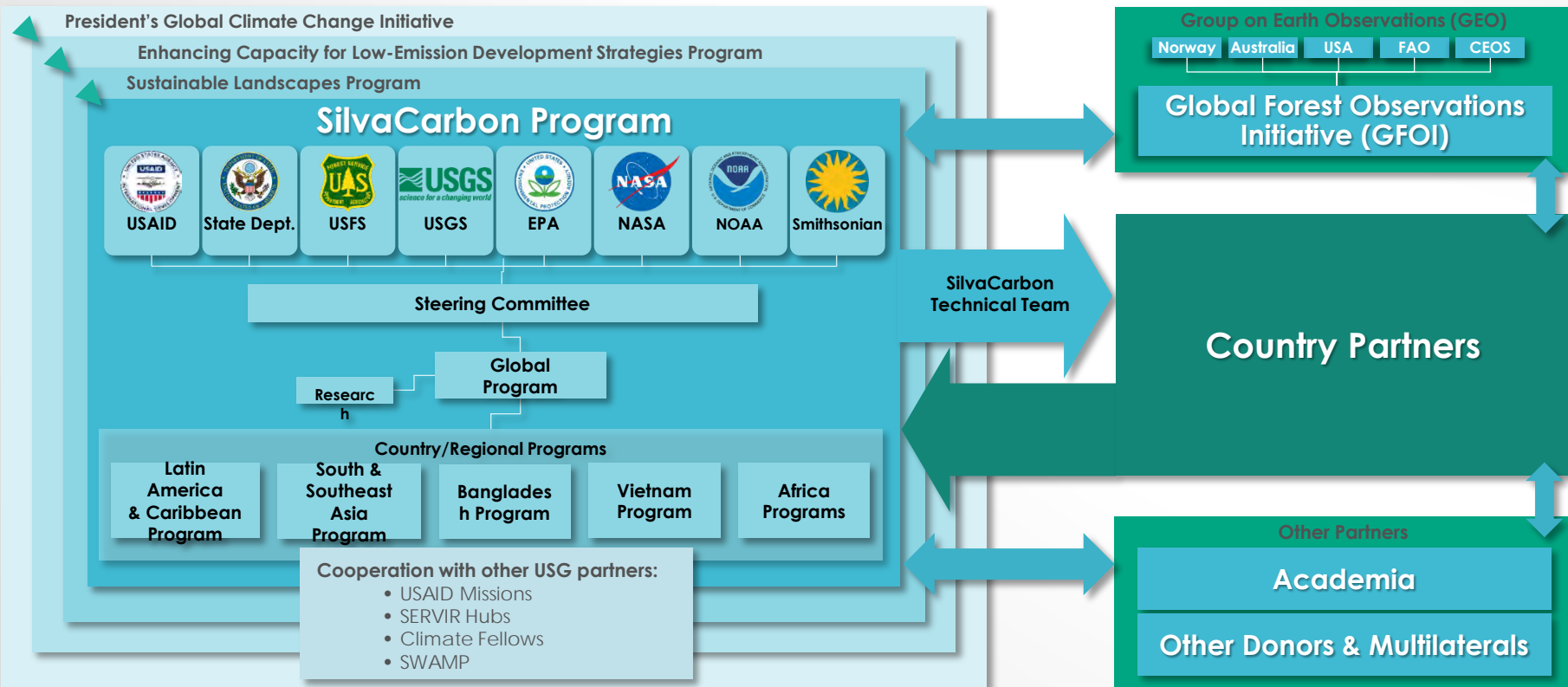
- Academia
 - University of Maryland, Boston University, Wageningen, etc.
- Other donors and multilaterals
 - FAO, UN-REDD, World Bank, GIZ, etc.
- NGOs
- Companies



WHO IS INVOLVED IN SILVACARBON?

USG SUPPORT

PARTNERS



WHERE DOES SILVACARBON WORK?



23 tropical forested countries in FY17

WHERE DOES SILVACARBON WORK?

- Mixture of regional, bilateral, and global-level programming



- Africa Programs – 5 countries, mainly bilateral
- Asia Regional Program – 8 countries, mainly regional
- Bangladesh Program – bilateral, funded by USAID/Bangladesh
- Vietnam Program – bilateral
- Latin America Program – 10 countries, regional + bilateral
- Global Program – global-level activities, coordination & oversight

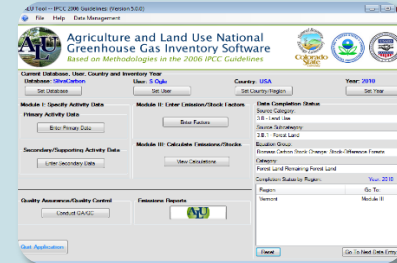
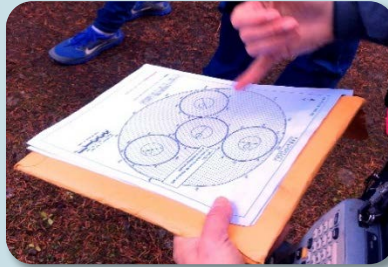
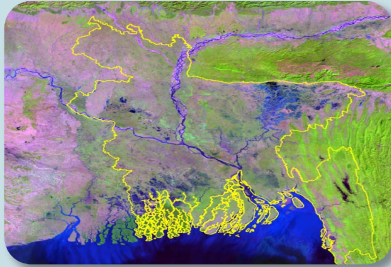
WHAT DOES SILVACARBON DO?

- SilvaCarbon assists countries to develop and implement **national forest monitoring systems (NFMS)** that are robust, sustainable, and tailored to their needs
- NFMS provide vital information on **forest change** – including forest carbon change – that is essential for:
 - ✓ Improving decision-making in the land sector
 - ✓ Participating in REDD+
 - ✓ Meeting emissions reduction commitments



WHAT DOES SILVACARBON DO?

Capacity-Building Focal Areas



Remote Sensing

- Analysis and acquisition of spatial data on forest change

Forest Inventory

- Design and implementation of ground-based forest surveys

GHG Inventory

- Estimation and reporting of GHG emissions from the land sectors

← **INTEGRATION** →

WHAT DOES SILVACARBON DO?

Capacity-Building Activities

Technical Assistance



Targeted Workshops



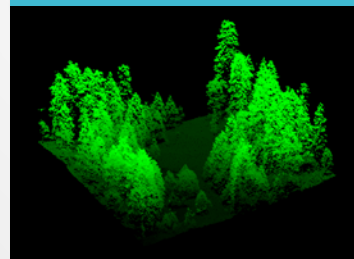
Study Tours



South-South Exchange



Applied Research



Tools & Guidance



INTEGRATED PROGRAMMING IN ACTION

ILLUSTRATIVE EXAMPLES FROM THE **ANDEAN AMAZON**



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

- They have different forest monitoring capacities, but face similar challenges and can leverage similar tools and techniques
- SilvaCarbon works with all 3 countries to build MRV capacity through bilateral, regional, and global-level technical assistance
- Programming is coordinated by a USFS technical advisor based in Lima



INTEGRATED PROGRAMMING IN ACTION

ILLUSTRATIVE EXAMPLES FROM THE **ANDEAN AMAZON**

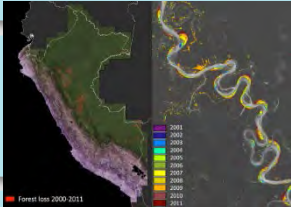


Regional Workshops

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

Bilateral Collaboration

USFS organizes two-month technical detail by forest inventory expert to assist Colombia with the redesign of its NFI, based on priority needs



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



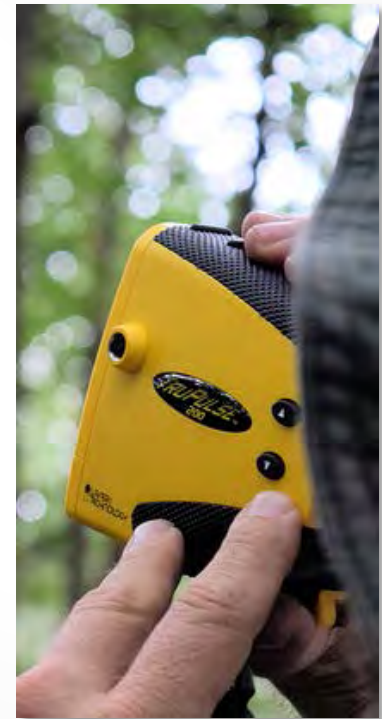
Global Engagement

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



STRATEGIC PRIORITIES

- Priorities for FY 2017 and beyond include:
 - Fostering **transparency** in GHG estimation and reporting in the land sector
 - Strengthening national forest/landscape monitoring systems to support **multiple objectives** and address evolving country needs
 - Building countries' technical capacities to fulfil **international commitments**, including Nationally Determined Contributions
 - Increasing engagement and collaboration with **GFOI**



CURRENT WORK

- Work plan for FY 2017 underway

Number of FY17 Activities by Country/Region and Outcome/Output							
	OUTCOME 1 # of activities			OUTCOME 2 # of activities		OUTCOME 3 # of activities	TOTAL # of activities
	Output 1.1	Output 1.2	Output 1.3	Output 2.1	Output 2.2	Output 3.1	
Asia Regional Program	2	1	4	1	1	4	13
Vietnam Program	6	1	3		1	3	14
Bangladesh Program*							19
Africa Programs							
Cameroon	4		3			1	8
ROC	1	1				1	3
DRC	2					1	3
Gabon			2				2
Mozambique	1					1	2
LAC Regional Program	5		1			6	12
Global Program	3	5	1			12	21
ALL PROGRAMS	24	8	14	1	2	29	78

* The Bangladesh Program is funded by USAID/Bangladesh and contributes to separate but complementary Outcomes and Outputs developed in collaboration with USAID/Bangladesh and FAO.

MORE INFO

- SilvaCarbon Spotlight e-newsletter: <http://goo.gl/sSGDFL>
- SilvaCarbon website: www.silvacarbon.org (under development)
- Global Program contacts:
 - Alex Moad, amoad@fs.fed.us
 - Sasha Gottlieb, sbgottlieb@fs.fed.us
 - Moses Jackson, mosesm.jackson@fs.fed.us

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



Climate Fellows

Advancing Environment & Development Goals
through Direct, Long-Term Collaboration

Program Overview





WHAT IS THE CLIMATE FELLOW PROGRAM?

The Climate Fellows program places technical experts within ministries in developing countries to build key technical capacities in response to national needs

- Funded by US State Department, with additional support from USAID
- Supports countries' REDD+ readiness efforts
 - As requested by country partners
- Implemented by the U.S. Forest Service, Office of International Programs



WHERE DO CLIMATE FELLOWS WORK?

To date, Climate Fellows have been placed in:

Zambia



Philippines



Costa Rica



Coming soon...



WHO ARE THE CLIMATE FELLOWS?

- Forest Service technical experts in different fields related to REDD+
 - Geospatial Analysis
 - Forest Monitoring
 - GHG emissions estimations
 - Forest Ecology
- Work directly with/in government offices responsible for REDD+
- Approximately 2 year tenure in country



PHILIPPINES

- *Population:* 102,624,209
- *Total Area:* 300,000 sq km
- *Forest:* 78,000 sq km (7.8 million ha)
- *GDP:* \$801.9 billion
- *GDP Per Capita:* \$7,700



CLIMATE FELLOW IN THE PHILIPPINES

- **Dr. Amanda Whitehurst**,
Remote Sensing Expert
- Worked with the National Mapping and Resource Information Authority and Forest Management Bureau
- Duration: September 2014 to November 2016





GOALS

- Build remote sensing capacity
- Improve the efficiency and accuracy of mapping protocols
- Ensure that government had the forest cover / land cover change data needed for REDD+ Reporting
- Support the development of a National Forest Monitoring System



ACTIVITIES



- Land cover change detection training
- Radar remote sensing training
- Accuracy Assessment seminar
- Capacity Assessment for GIS and Remote Sensing of NAMRIA
- Educational seminars on GIS, remote sensing, and land cover mapping
- Collaborated on the development of a framework for the National Forest Monitoring Program



ZAMBIA

- *Population:* 15,510,711
- *Total Area:* 752,618 sq km (75.3 million ha)
- *Forest Cover:* 50 million ha
- *GDP:* \$20.57 billion
- *GDP Per Capita:* \$3,900



CLIMATE FELLOW IN ZAMBIA

- **Darren Johnson**, Forest Ecologist
- Worked with the Zambia Environmental Management Agency (ZEMA)
- Duration: August 2014 – August 2016



GOALS

- National GHG Inventory Development
- REDD+ Readiness Initiatives
- Capacity Building



ACTIVITIES



- REDD+ Scientific Studies and Related Capacity Building
 - Fire Management Assessment
 - Fire Management Training
- REDD+ Mitigation Actions
 - Tree Nursery Establishment
- Improved Management of Forest Resources
 - Monitoring and Management Plans

ACTIVITIES



- Education and Outreach
 - Radio (messages & jingles)
 - Competitions (Creation of Zambia Fire Mascot)
 - Billboards, posters, calendars etc.
 - Group discussions





COSTA RICA

- *Population:* 4,872,543
- *Total Area:* 51,100 sq km
- *Forest:* 2,725,800 ha
- *GDP:* \$57.69 billion
- *GDP Per Capita:* \$16,100



CLIMATE FELLOW IN COSTA RICA

- **Dr. Randy Hamilton,**
Geospatial Advisor
- Works with the National Fund for Forest Financing (FONAFIFO)
- Duration: January 2015 - present





GOALS

- Support development of the national land use/land cover and ecosystems monitoring system
 - Payment for Ecosystem Services information management system
 - Capacity building (remote sensing/GIS)
 - Miscellaneous technical support



ACTIVITIES



- Supporting National Land Use, Land Cover and Ecosystem Monitoring System (SIMOCUTE) design through:
 - Stakeholder interviews
 - Training in remote sensing
 - Land use classification system workshop
 - Design tool for inventory and monitoring workshop
 - Initiation of photo-interpreted, change estimation technical workgroup
 - And much more!

THANKS!

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

