

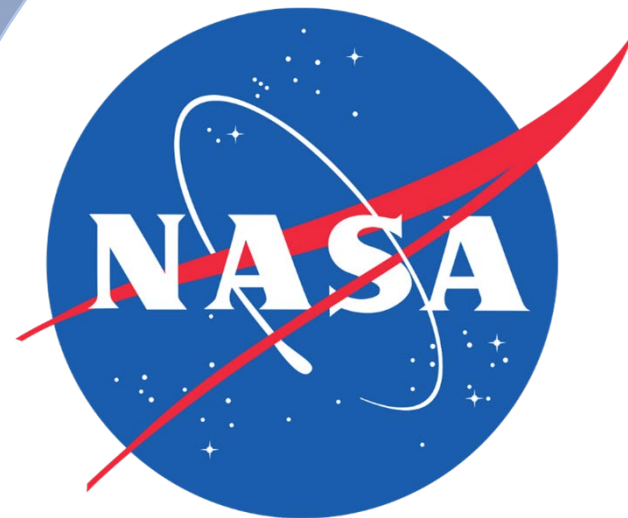


**AEOIP Spring Workshop**

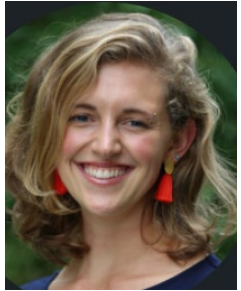
**March 22-24, 2022**

*Integrating NASA and USFS Datasets for a  
High-Resolution Annual Forest Carbon  
Monitoring System*

*By: Haley Leslie-Bole, World Resources Institute*



# About Me



## Haley Leslie-Bole

### Associate, World Resources Institute

**Bio:** Haley is part of WRI's Carbon Removal team where she works to inform federal and subnational policy to increase carbon sequestration in natural and working lands and improve carbon inventorying and monitoring.



### Primary research areas/land management issues/EO application:

- Partnering with US Climate Alliance states to improve forest carbon inventorying, monitoring, and modeling



### Other team members:

Team led by George Hurtt, University of Maryland (Science Team lead for NASA CMS)



## Pitch Fest Idea: Integrating NASA and USFS Datasets for a High-Resolution Annual Forest Carbon Monitoring System

- Leverages USFS data and **NASA LiDAR** (GEDI) and **optical imaging** data to create a new breed of GHG inventory for trees & forests
- Enhances **spatial coverage and resolution** over current state inventory methods
- Provides **ability to back date** to policy base year
- **Attributes causes** of carbon stock change to inform land management and policy
- **Links to future projections** of carbon sequestration potential for planning.



# Challenges

## Challenges:

- *Effective engagement of key stakeholders in every state*
- *Lack of requisite airborne remote sensing data in every state*
- *Moving from research to operationalization*
- *Funding continuity and scale*

## Solutions:

- *Extend Multi-state Working Group and coordinate with USCA*
- *New grant from USCA for New Mexico*
- *Switch from airborne to orbital remote sensing (GEDI, ICESAT2, Landsat)*
- *Move to operational compute platform*



# Feedback to AEOIP

## Lessons Learned:

- *Importance of identifying and maintaining key stakeholders*
- *Importance of identifying specific policy needs and associated science product milestones*
- *Importance of developing science products in format and timing that really meet stakeholder needs*
- *Importance of ongoing support for science products (i.e. FAQs, public speaking, etc)*

## Suggestions:

- *help establish communities of practice and coordinate stakeholder engagement*
- *help communication of value add from NASA-USFS collaborations*





Thank You!

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