



# NASA HARVEST

SUSTAINABLE AND REGENERATIVE AGRICULTURE INITIATIVE

SARA is a public-good, multi-stakeholder, pre-competitive forum to accelerate the development of scientifically validated common yard sticks for sustainable and regenerative agriculture.

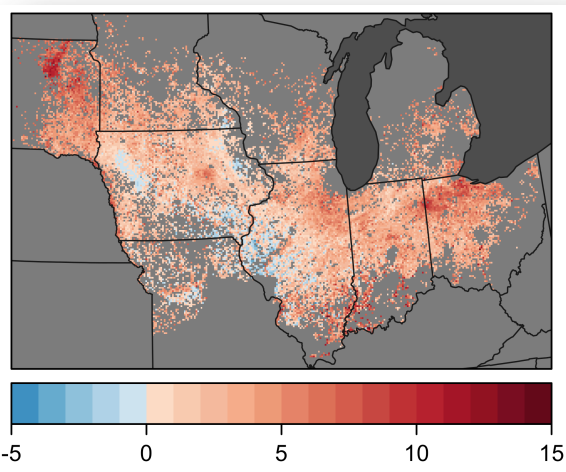
## WHY A NASA INITIATIVE ON SARA?

*Climate is changing.*

*Food insecurity is growing.*

*Soil is being degraded.*

- Farmers need incentives & guidance to cultivate natural capital.
- Policy & agribusiness alike require quantitative metrics at scale.
- Satellite data provide deep time series & synoptic coverage to tell farm-to-global stories.



Impact of Conservation Tillage on Maize Yield (Mean %) [Deines et al. (2019)]

## WE NEED A ROBUST EVIDENCE BASE TO BUILD POLICY & EMPOWER DECISIONS.

The time is short to empower agriculture to be a net carbon sink, and to help farmers build resilience to extreme weather events.

## WHAT DOES SARA DO?

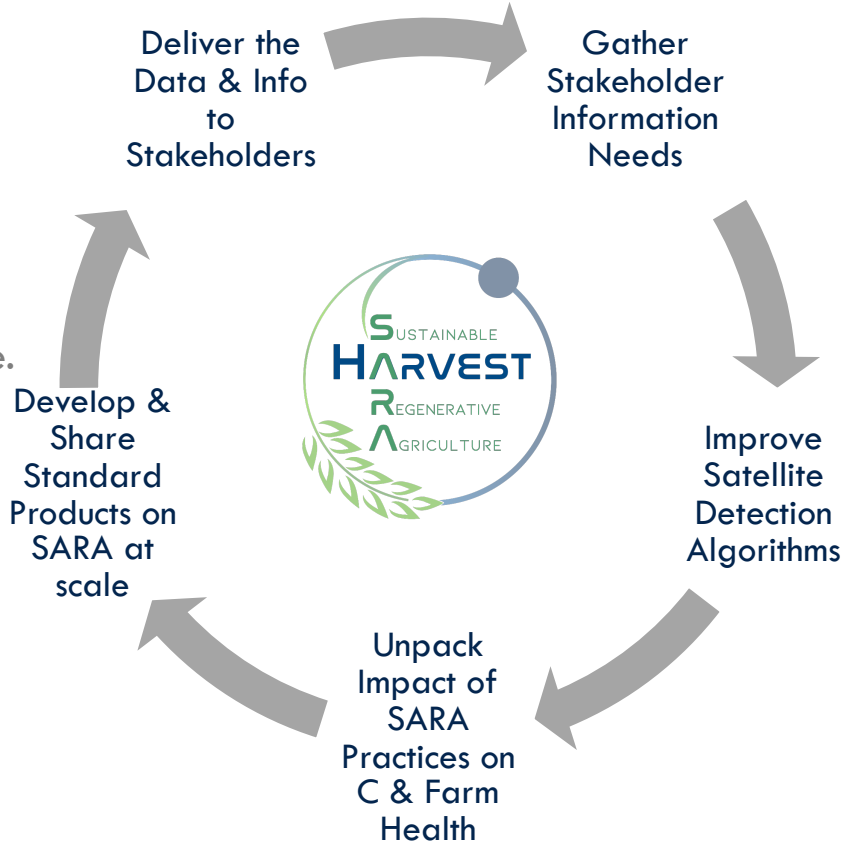
- Work with agricultural stakeholders to identify key knowledge priorities.
- Convene top scientists to answer key questions about agricultural land use:
  - Which practices work where?*
  - Tillage, Cover Cropping, Structural Conservation Management*
  - What are their impacts, from field to watershed scales, and beyond?
  - Yield, C-sequestration, Water Quality, Resilience, Soil health*
- Develop map products of agricultural land use practices & outcomes.

SARA operates as a public private partnership, bringing together the best of industry and of science to advance sustainable agriculture practices and outcomes, now.

**BENEFITS TO SUPPORTING SARA**

- Support evidence-based policy, feed into ecosystem services markets, and empower farmer decision-making.
- Demonstrate a commitment to sustainability & fighting climate change.
- Support global food security.
- Pre-competitive forum to connect agribusiness like never before.
- Access the world’s top scientists on sustainability, remote sensing, soil health, and global change.

**Contributions are tax-deductible.**



**HELP REVOLUTIONIZE SUSTAINABLE AGRICULTURE.  
SUPPORT SARA TODAY!**

NASA Harvest is NASA’s food security and agriculture program.

The multidisciplinary and multisectoral program’s core goal is to broaden the use of satellite-based Earth observations (EO) for assessing food security and crop productivity across the globe.

**CONTACT**  
[SARA@NASAHarvest.org](mailto:SARA@NASAHarvest.org)  
for more information



The SARA Research Consortium, led and implemented by the NASA Harvest Hub at the University of Maryland, is growing.



*SARA operates as a non-profit within the UMCP Foundation. All outcomes serve the public good.*