Food Security and Safety Work Group

Dorian Janney, Chair

Working Group Members

- Dorian Janney, NASA/GSFC/GPM
- Steven Rekant, USDA, One Health Coordination
- Michael Gremillion, Univ. of AL, Global Water Security Initiative
- Ben Zaitchik, Johns Hopkins, AGU Leadership
- Josh Glasser, DOS
- Antar Jutla, Univ. of FL, AGU Leadership
- Stephanie Schollaert Uz, NASA/GSFC/Applied Science Manager
- Janet Whaley, NOAA, Lead Veterinary Medical Officer
- Kim Locke, NASA/ GSFC/ESSIC, Applied Sciences
- Mary Mitkish, NASA Harvest
- Liz Saccaccio, World Resources Institute
- Ali Akanda, Univ. of RI
- Kimberly Slinski, Univ. of MD, ESSIC
- Sheila Fleischhacker, USDA, National Science Liaison
- Cynthia Hall, NASA/GSFC, Science Systems and Apps
- Sushel Unninayar, NASA/GSFC

Goals set in Dec. 2020

- Identify existing platforms and institutions, including how to share data with stakeholders

- Identify specific gaps in environmental data

- Find case studies illustrating effective use of EOS data to bring about meaningful change and brainstorm ways to amplify opportunities to stakeholders

Change in Palmer Drought Severity Index (1900–2002)

-4   -2   0   2   4
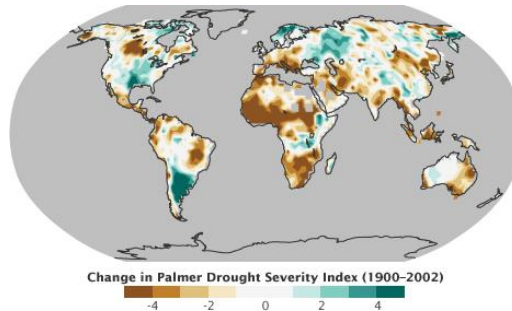
Key Questions: Future Case Studies
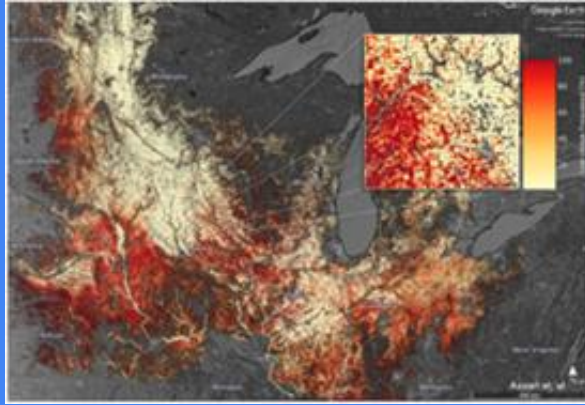
1. How are EO being integrated with food systems data to provide actionable information on food security in regions with extreme food insecurity?

2. What is the impact of increasing heat on agricultural and ranching production in the western United States?

3. What is the impact of algae blooms and toxins on water quality, shellfish and aquaculture on the eastern coast of the United States?

Focused Questions

-Who are potential stakeholders?

-Who are potential decision-makers?

-What data are they currently relying on?

-What is the current state of the research?

-What are the gaps in the research?

-What are the gaps in available data?

-Resources
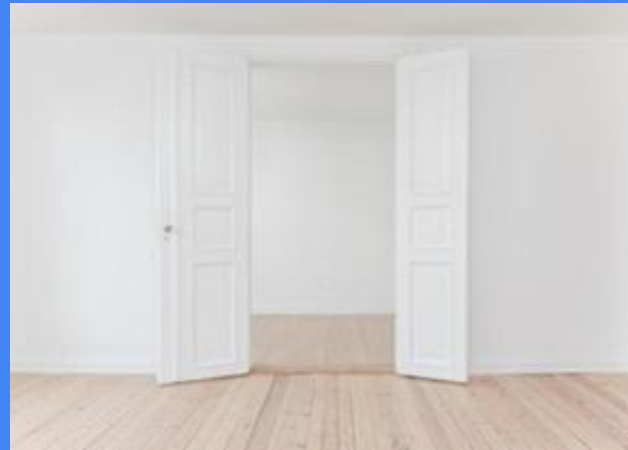
Potential Case Studies for next year

Work on fleshing out one case study per overarching questions to:

- Provide real-world examples of the use of EOS combined with other relevant data
- Demonstrate the use of specific EOS data for these applications
- Identify gaps in existing EOS and other data that would be helpful to have for these applications
- Amplify the work of these data end-users and decision-makers with the larger EOS and agriculture community
- Spotlight examples of environmental justice "Best Practices" as well as "Missed Opportunities"
- Learn more about the needs of potential data end-users

How are EO being integrated with food systems data to provide actionable information on food security in regions with extreme food insecurity?

WRI is working on a new initiative 'Climate Risk Tool for Equitable Value Chains' that will:

- Strengthen awareness of climate change risks and impacts
- Enhanced agency and decisions-making power of underserved users
- Improved integration of climate risk into decision making
- Improved, climate-responsive agricultural policies and plans
- As part of it we're conducting user interviews and needs assessments to better understand where EO data/tools can support coffee and rice producers in two countries.

What is the impact of increasing heat on agricultural and ranching production in the western United States?
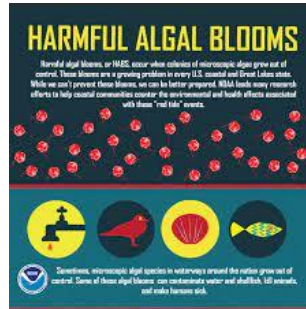
Find end-users who are using new Open ET platform: **https://www.nasa.gov/feature/transforming-water-management-in-the-us-west-with-nasa-data**

- Open ET website: https://openetdata.org/intro/

What are the impacts of algae blooms and toxins on water quality, shellfish and aquaculture on the eastern coast of the United States?

- Looking for case study ideas!

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