USA-NPN EXTERNAL PROGRAM REVIEW WORKSHOP

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Accomplishments

- Algorithm Theoretical Basis Documents (ATBDs) for Level 1 data products
  - QA/QC
  - Using simulated + real data
- Alignment of lexicon across both teams
- Co-authored paper to appear on Ecosphere
Next steps (Part 1)

- Co-development of higher order data products
- Connection between DOI CSCs and USDA Regional Climate Hubs
- USDA Long-term Agroecosystem Research (LTAR) – NEON collaboration
  - USGCRP indicator development
  - Coastal observations
USDA – NEON Connection: LTAR

• “Hoping to emulate the success and ambition of ecological research networks, such as NEON, the U.S. Department of Agriculture (USDA) is creating a network of long-term agricultural research sites.” *Science*, September 2012

• Long-term Agroecosystem Research (LTAR) network

• As of January 2014: 18 sites across the United States
USDA LTAR will help the US...

- ...understand how key agricultural system components interact at larger scales
- ...anticipate the environmental effects of shifting agricultural practices;
- ...improve the effectiveness of conservation programs;
- ...identify the broader societal benefits of modern agriculture (e.g., bio-energy production; carbon sequestration).
LTAR – NEON Interoperability Approach

• NEON: 7 agriculture-themed terrestrial sites

• LTAR-NEON sites:
  • Three co-located
  • Three others in close proximity

• Strategy:
  • Common measurements
  • Comparable protocols
  • Discoverable data
Next steps (Part 2)

• Co-development of higher order data products
• Connection between DOI CSCs and USDA Regional Climate Hubs
• USDA Long-term Agroecosystem Research (LTAR) – NEON collaboration
• USGCRP indicator development
• Coastal observations
USGCRP National Climate Indicator System

A system of physical, ecological, and societal indicators that communicate key aspects of climate changes, impacts, vulnerabilities, and preparedness.

**Agricultural Indicators**

Indicator suites (currently in development) *may* include:

1. State of soil resources
2. Crop and livestock distribution
3. Pest distribution
4. Net economic impacts

NEON data are relevant to these indicator suites
Coastal Observations

• Coastal ecosystems
  • Building resilient coastal communities
    • Natural buffers to ameliorate effects of extreme events
    • Other economically important ecosystem services
  • Linkages with NOAA:
    • National Estuarine Research Reserve System (NERRS)?
    • MarineBON?