



Southeast  
Climate Consortium

# Southeast Climate Consortium

Year in Review

Fall Meeting 2015

October 19-20

Athens, GA

# What or Who is SECC?

- Multi-disciplinary
- Multi-institutional
- Multi-state **Team**
- engaging stakeholders & partners
- to apply advances in *climate* sciences to:
  - agriculture
  - water resources
  - coastal resources



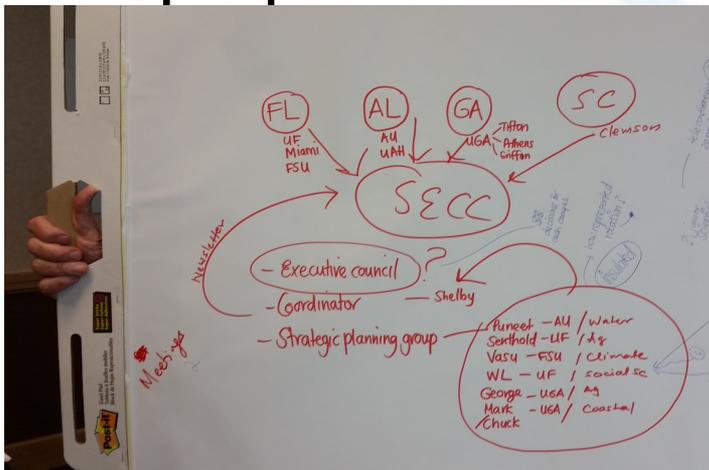


# Last year, you told us...

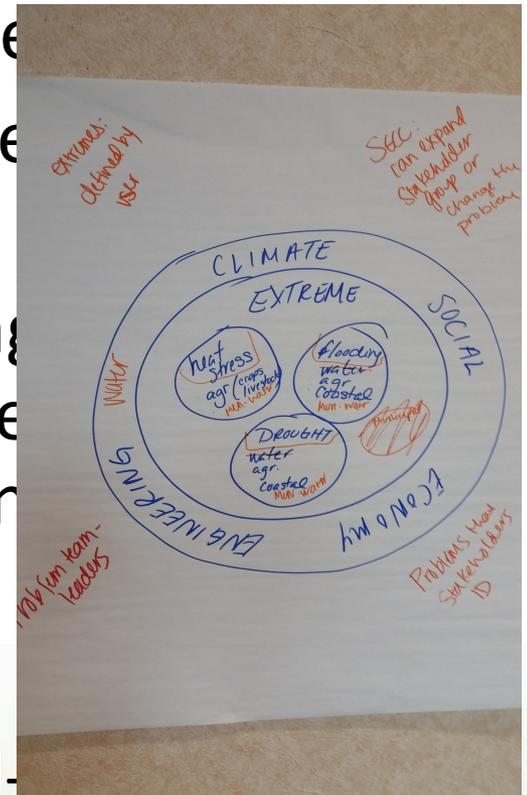
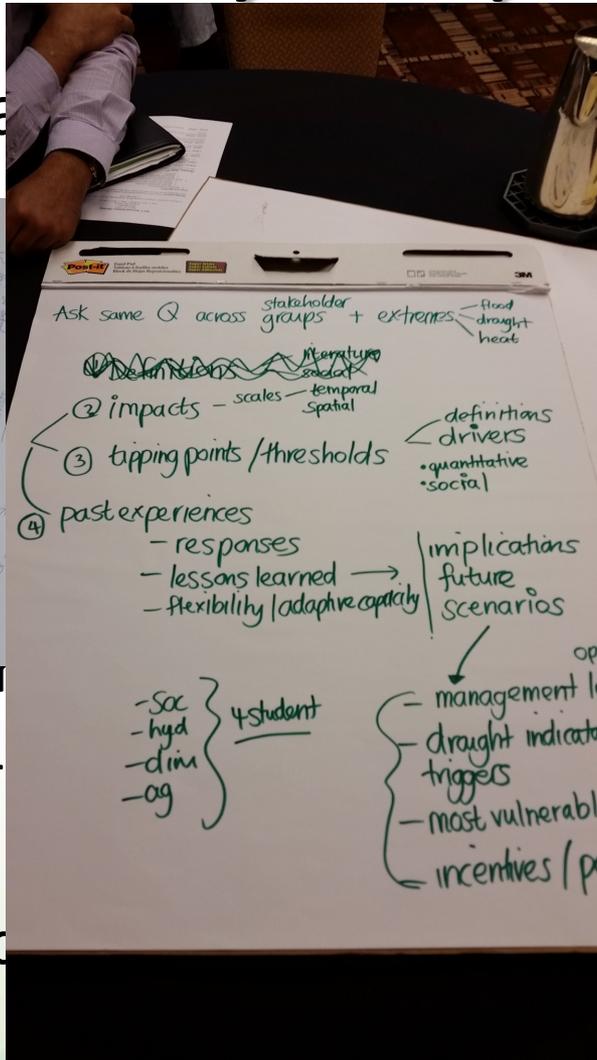
- How to improve integration:
  - ✓ Invite broader participation
  - ✓ Broaden and diversify leadership
  - ✓ More frequent meetings throughout the year to keep members on task
  - Bring in more money to fund research

# RISA History & Update

- RISA has historical



- o met weekly on t
- o Meeting in June-
- o Many iterations,
- o Submitted a proo



few weeks ago!

# New Proposals

## Funded

- Miami colleagues successfully secured NSF funding on 2 projects (Water Sustainability and Climate; Sustainability Network)
- NIDIS 1-year funding for Auburn, UF & FSU

## Submitted

- USDA-NIFA CAP on Migrating Ag from West → East (PI: McNider)
- USDA-NIFA Water for Agriculture (PI: Graham)
- USDA-NIFA: “Climate Resilient Land Use With Seasonal Forecasts In The Southeastern United States” (PI: Jim Jones)
- NSF Coupled Natural and Human Systems
  - Research Project (PI: Srinivasan)
  - Research Coordination Network (PI: Asseng)
- Miami Proposed NOAA funding (Resilient Coasts)
- NASA ROSES “Climate indicators for Southeast US agriculture” (PIs: Asseng & Misra)

# By the numbers

- 38 peer-reviewed publications
- 28 team members
- 13 students
- <25 conference presentations & meetings
- 18 new partners/strengthened connections



RISA PI Meeting Charleston  
Jan 2015



Tri-State Row Crop Meeting  
Feb 2015

# What do those numbers really mean...?



# Science + Engagement =

- **Tri-State Row Crop group** asked: “What has been the influence of urbanization and irrigation on Southeastern US climate?” (Selman and Misra, 2015).
- **Tri-State Row Crop group** asked: “Do historic records of weather show an increase in the frequency of extreme rainfall events across the SE?” (Dourte et al., 2015).
- **FloridaWCA** asked: “How can seasonal climate prediction be made useful for operational decisions of water management?” (Bastola and Misra, 2014).
- **Florida WCA** asked: “Do landfalling tropical cyclones affect droughts in the Southeastern US?” which led to one publication (Misra and Bastola, 2015).
- **Landscape Conservation Cooperatives** asked: “What are the best CMIP5 models for the Southeastern US?” (Kozar and Misra, 2013; Michael et al., 2013).

# New Science

- Made 100 years of downscaled climate data from 20th century analysis publicly available in FLAReS1.0
- Assisted African American farmers with climate change information through social justice approach (Furman et al., 2014a).
- Developed new insights into “warming hole” (Maleski and Martinez, 2015); rainfall trends (Dourte et al., 2015); decadal variability in SE US (Tian et al., 2014a); and uncertainty in climate change impact modeling (Asseng et al., 2013; 2015; Martre et al., 2015).
- Simulations based on the SimCLIM and the CSM-CERES-Maize models showed that by 2050 corn should be planted earlier to reduce heat stress during flowering.
- The WASSI hydrologic model was executed under historic weather conditions in the SE US to determine climate stresses per basin. Results indicated that for most of the Alabama and Mississippi basins, surface water remains unstressed even in the driest years, and thus available for potential irrigation use.

# New Outreach

## Southeast Climate Extension/AgroClimate

- **Video series: Climate Risks and Management Solutions**
- **Adaptation Exchanges:** The Adaptation Exchange is an annual workshop featuring climate outlooks and management strategies for increased climate-resilience and improved efficiency in production systems. Southeast Climate Extension has carefully evaluated the learning that happens in these workshops
- **4-H Weather and Climate Toolkit:** M. Griffin (FSU) developed a 4-H Weather and Climate Toolkit and used this toolkit to train 4-H students and instructors in a series of summer workshops in Florida and more recently Georgia.

## Tri-state climate network workshops

- **“WHAT IF” scenarios for row crops in the SE USA**, Tallahassee, FL, Feb 9<sup>th</sup> 2015 – Participants discussed **future scenarios** for row crop production in the SE US based on past trends, potential changes in climate, competing land uses, and water availability; Identified possible strategies for different stakeholder groups to anticipate and prepare for climate changes.
- **Open Sesame: A Possible Crop to Mitigate Climate Risk?** Live Oak, FL, August 7<sup>th</sup>



### AgroClimate

Resources and interactive tools for improving climate resilience in agriculture



### Rain Intensity in the Southeastern USA

Rainfall Intensity: observed changes and management options



### Climate Resilience and Cover Crops

Learn from producers how cover crops are reducing climate risks



### Cover Crops and Seasonal Forecasts

Adjusting Cover Crop operations using seasonal forecasts

# Enhancing Regional Collaboration

- Southeast Working Group at National Adaptation Forum
- Southeast Climate Coordination Call
- Florida Climate Institute/Southeast Florida Climate Compact
- SCIPP/SECC Collaboration on Storm Surge Data



# How are you partnering and collaborating?

- Partnerships poster— how we've been connecting with others in the region.
- How have you been partnering?
- We want to know! Fill in the poster in the back with your project information and partners.