

# Climate Learning Network – CLN resources, collaboration, and Climate Literacy Certification



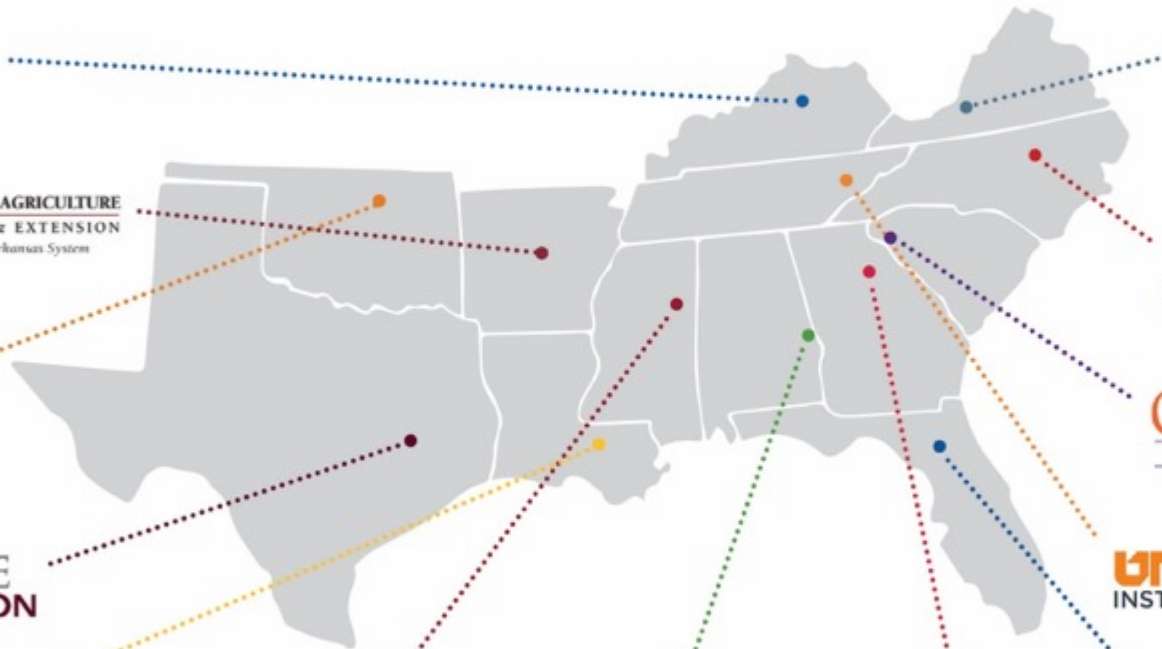
Climate Learning Network

*Daniel Geller, PhD, College of Engineering, University of Georgia*  
*William Hubbard, PhD, Southern Regional Extension Forestry*



# Southern Regional Extension Forestry

Keeping you connected to an enlightened forest community.





## PROFESSIONAL DEVELOPMENT



## EDUCATION & OUTREACH



## APPLIED RESEARCH



## TECHNOLOGY TOOLS & DEVELOPMENT



Southern Regional Extension Forestry

➤ Graphic Design

- Branding
- Copyediting & Print Formatting
- Website Design



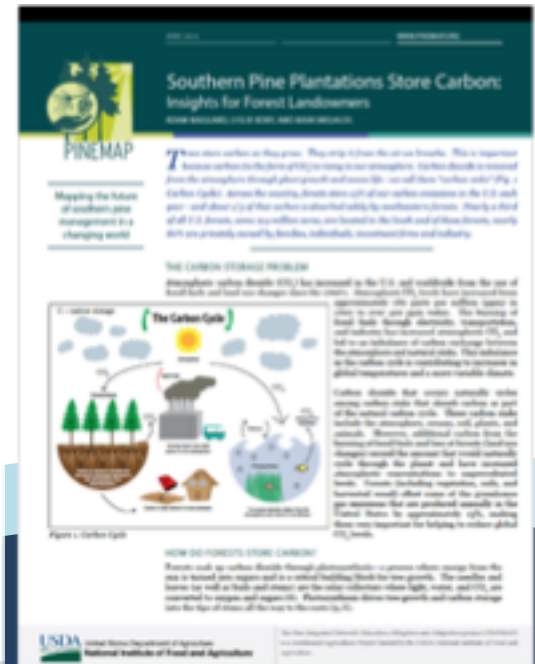
➤ Photography

Social Media



Southern Regional Extension Forestry

2014 - 2015 Annual Report



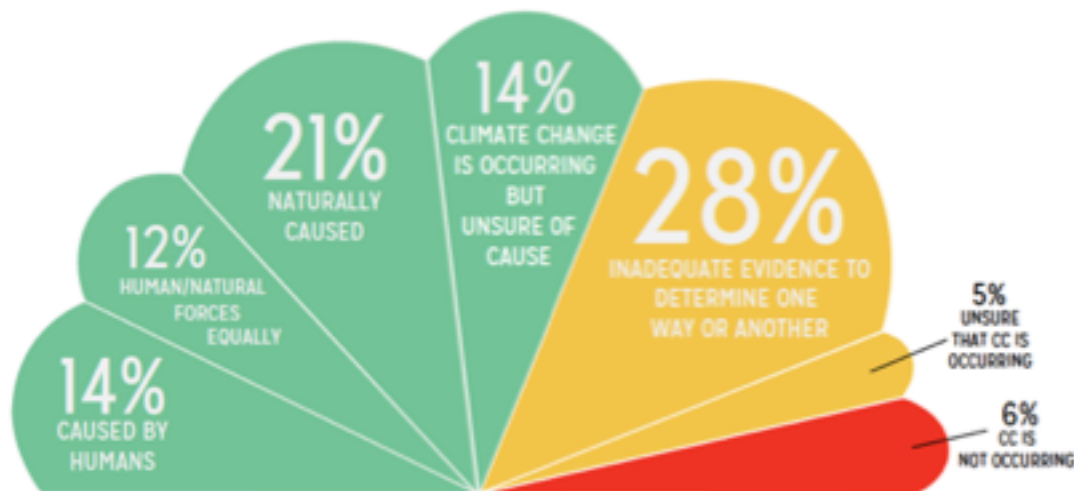




LESLIE BOBY, WILLIAM HUBBARD, AND SHAFKAT KHAN  
 UNIVERSITY OF GEORGIA, ATHENS, GA USA [HTTP://SREF.INFO](http://SREF.INFO), [SREF@SREF.INFO](mailto:SREF@SREF.INFO)



# CLIMATE CHANGE ATTITUDES OF SOUTHERN FORESTRY PROFESSIONALS



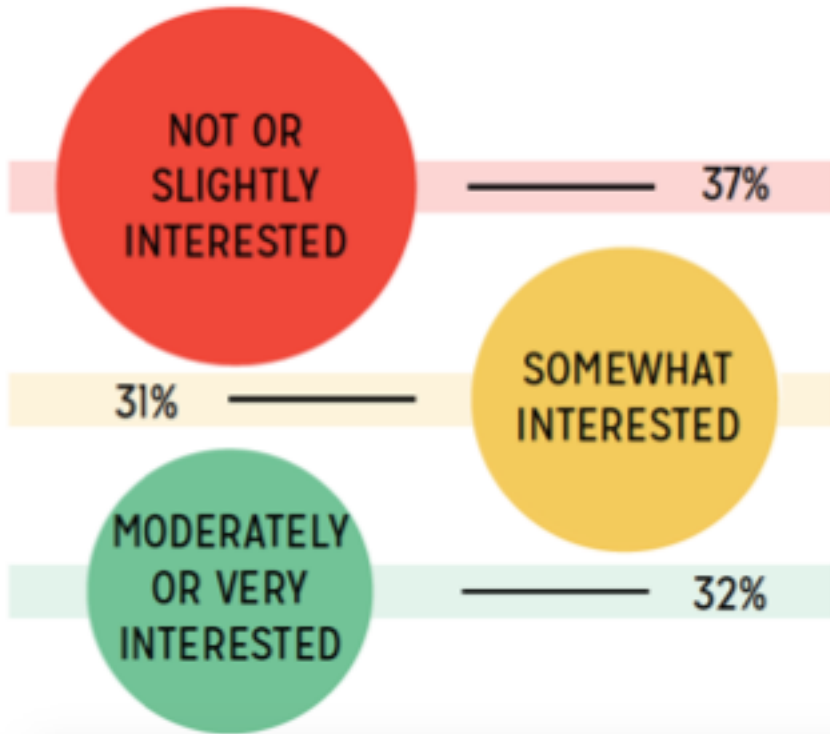
## WHAT IS CAUSING CLIMATE CHANGE?

- CLIMATE CHANGE IS OCCURRING
- UNSURE/NOT ENOUGH EVIDENCE
- CLIMATE CHANGE IS NOT OCCURRING

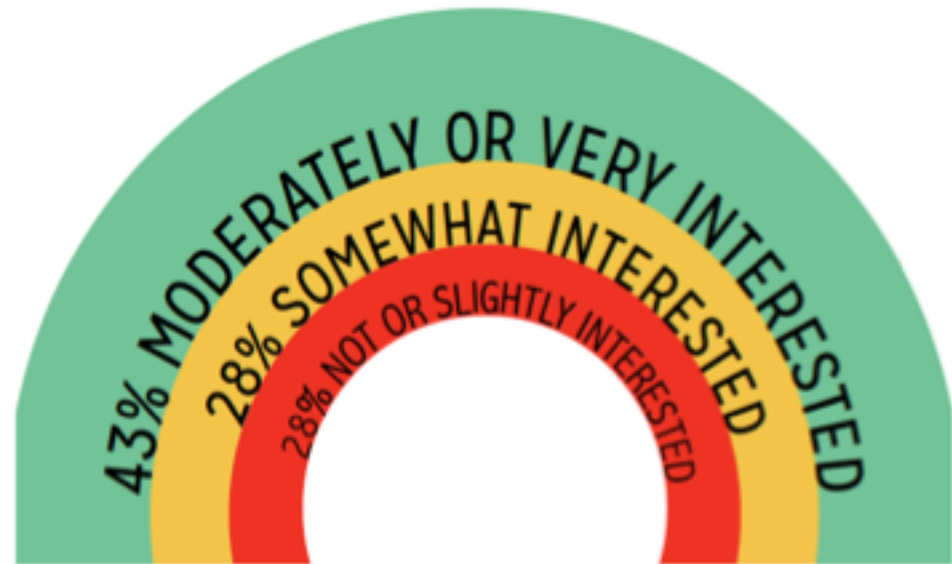
"IN MY LIFETIME, I HAVE NOTICED A CHANGE IN THE CLIMATE."  
 LEVEL OF AGREEMENT



## INTEREST IN LEARNING MORE ABOUT CLIMATE SCIENCE AND CLIMATE CHANGE



## HOW INTERESTED ARE YOU IN LEARNING MORE ABOUT FOREST MANAGEMENT STRATEGIES THAT PROMOTE FOREST HEALTH AND RESILIENCY?





## eXtension history

- All Land Grant Universities contributed to foundation
- provided information directly to the ground when an agent wasn't necessarily available
- Community of Practice (COP) = main unit of delivery

The screenshot shows the eXtension website interface. At the top, there is a navigation bar with the eXtension logo, the tagline "Teach • Innovate • Impact", and the text "A Part of the Cooperative Extension System". The navigation menu includes "Home", "Resource Areas", "About", "Support Us", and "Recent". A search bar is located on the right side of the navigation bar.

The main content area features a featured article titled "Climate, Forests and Woodlands" with a sub-heading "Management Strategies for Family Forests". The article is written by Eli Sagor, University of Minnesota. Below the article title is a photograph of a large tree with green leaves. To the right of the article is a "Connect with us" section with social media icons for Twitter and Facebook, and a "Welcome" message. Below the welcome message is a "Select a different institution" section with a search bar for "State or Zip" and a "LOCATE" button.

At the bottom of the page, there is a "Resource Areas" section with a grid of categories and sub-topics:

Resource Areas	ENERGY	FARM	HEALTH AND NUTRITION
<b>COMMUNITY</b>	Farm Energy	Ag Safety and Health	Community Nutrition Education
Agricultural and Food Law	Home Energy	Animal Manure Management	Families, Food and Fitness
Community Planning and Zoning	Wood Energy	Animal Welfare	Healthy Food Choices in Schools
Community, Local and Regional Food Systems	<b>ENVIRONMENT</b>	Apples	<b>LAWN AND GARDEN</b>
Cooperatives	Prescribed Fire	Bee Health	Extension Master Gardener
Creating Healthy Communities	Trees for Energy Conservation	Beef Cattle	Gardens & Landscapes
Diversity, Equity and Inclusion	<b>FAMILY</b>	Blueberries	The Garden Professors
Enhancing Rural Community	Child and Family Learning Network	Climate, Forests and Woodlands	Water Conservation for Lawn and Landscape
		Dairy	

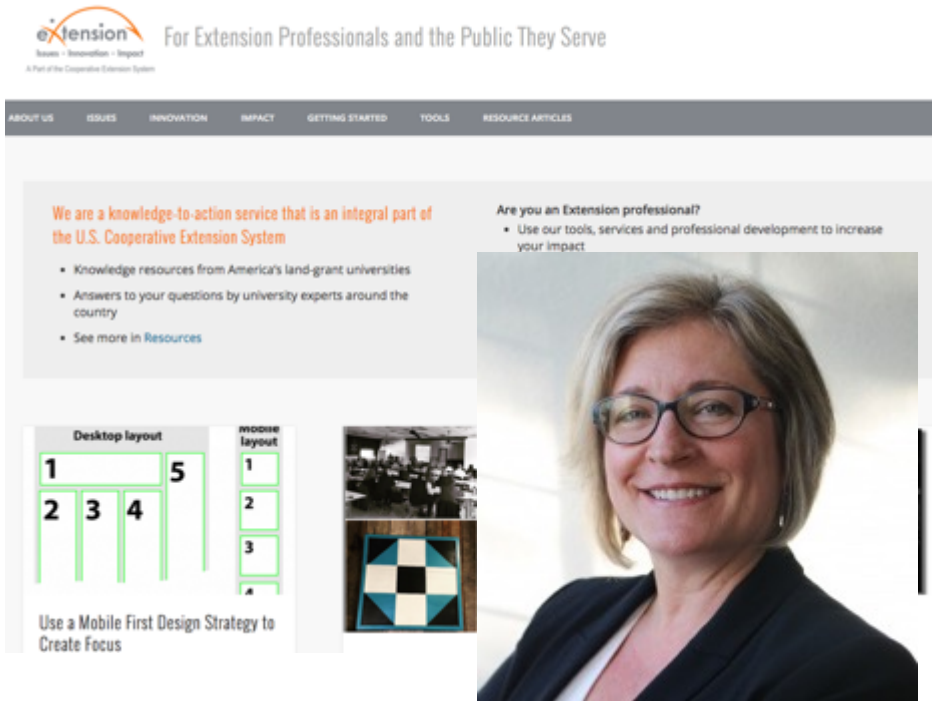


## The NEW eXtension Strategy

### Introducing the NEW eXtension

Using an online constellation of people, resources and tools, eXtension supports the [Cooperative Extension System](#) nationwide. The NEW eXtension provides Extension professionals—educators, agents, faculty and specialists—with resources that focus on:

- Increasing Extension professionals' effectiveness in addressing issues of importance to the nation
- Fostering creativity and innovation in developing solutions and methods of work
- Advancing the visible and measurable impact of their work for the public good



The screenshot shows the extension website homepage. At the top left is the extension logo with the tagline "For Extension Professionals and the Public They Serve" and "A Part of the Cooperative Extension System". Below the logo is a navigation menu with links: ABOUT US, ISSUES, INNOVATION, IMPACT, GETTING STARTED, TOOLS, and RESOURCE ARTICLES. The main content area features a headline: "We are a knowledge-to-action service that is an integral part of the U.S. Cooperative Extension System". Below this are three bullet points: "Knowledge resources from America's land-grant universities", "Answers to your questions by university experts around the country", and "See more in Resources". To the right of the headline is a section titled "Are you an Extension professional?" with a bullet point: "Use our tools, services and professional development to increase your impact". Below this text is a large portrait of Christine Geith, the new CEO. To the left of the portrait are two wireframe diagrams labeled "Desktop layout" and "mobile layout" with numbered boxes (1-5) indicating content placement. Below the wireframes is the text "Use a Mobile First Design Strategy to Create Focus".

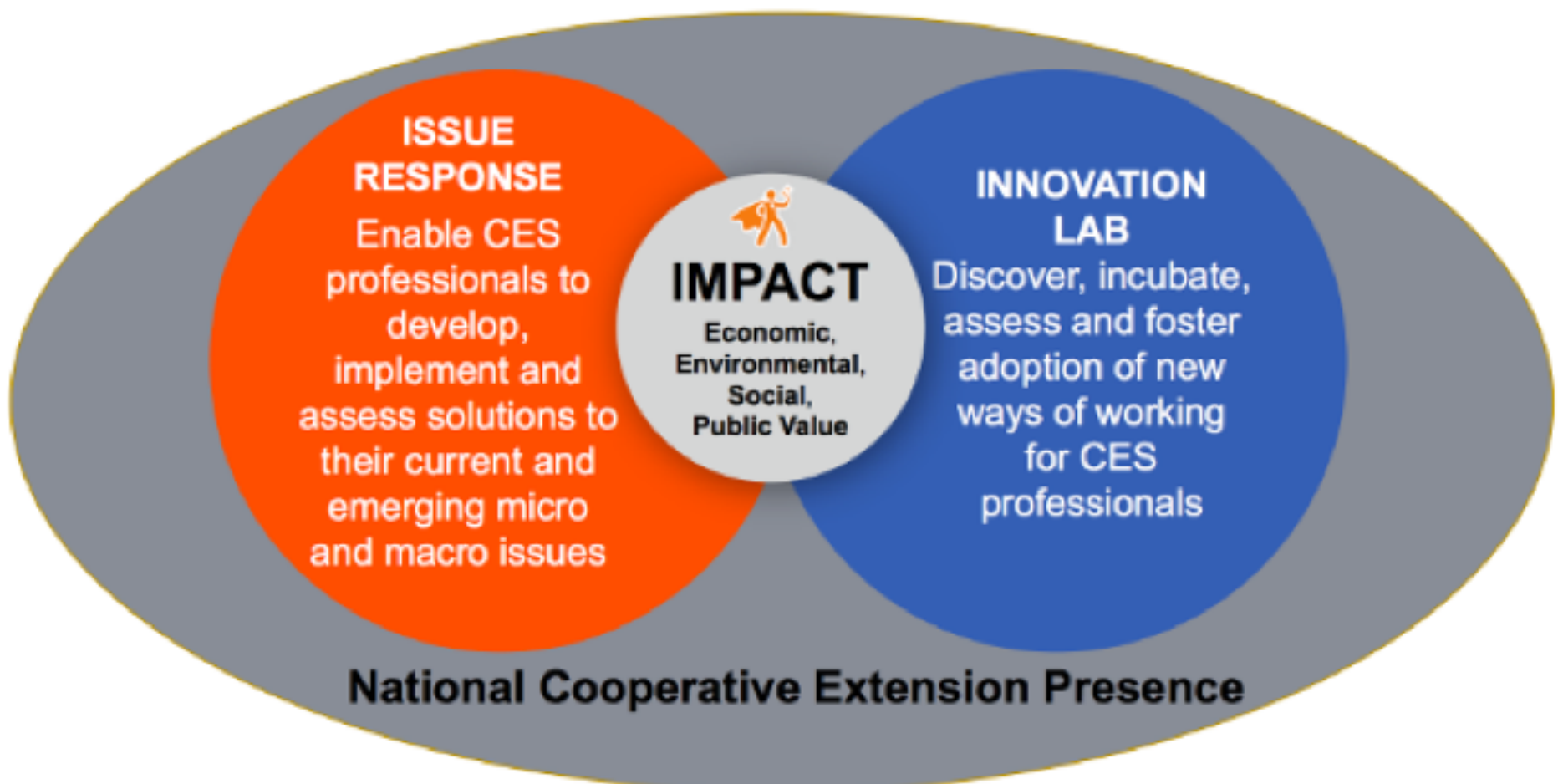
- The NEW eXtension
  - New CEO, Christine Geith (Michigan State University)
  - Focus on
    - Training Extension Professionals
    - Issues
    - Innovation
    - Impact
  - Voluntary Participation





- i-Three Issue Corps
  - 2015 Focus Issues: **Climate Literacy** and Food Systems
  - **Corps**: 200 Extension professionals focusing on innovative projects to make short-term, measurable impact on climate.
  - Corps will inform future eXtension tools and services to expand to **2000**

# i-Three issue Corps



AFRI

# Coordinated Agricultural Projects



# Building the Network



# Building the Network

 Southern Regional  
Extension Forestry





# Building the Network



Climate Learning Network



# Building the Network



# Building the Network



Climate Learning Network





Climate Learning Network





Climate Learning Network







Climate Learning Network







**USDA**  
United States Department of Agriculture  
**CLIMATE HUBS**



 Southern Regional  
Extension Forestry



Climate Learning Network

 College of Agricultural &  
Environmental Sciences  
UNIVERSITY OF GEORGIA

 College of Engineering  
UNIVERSITY OF GEORGIA

Warnell School of Forestry  
& Natural Resources  
UNIVERSITY OF GEORGIA





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**CLIMATE HUBS**



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Southern Regional Extension Forestry



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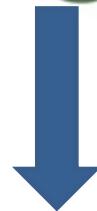
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— COOPERATIVE —  
EXTENSION



Southern Regional Extension Forestry



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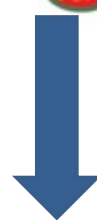


Warnell School of Forestry & Natural Resources UNIVERSITY OF GEORGIA



REACCH Regional Approaches to Climate Change

Farmers Foresters



COOPERATIVE EXTENSION







Southern Regional Extension Forestry



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COOPERATIVE EXTENSION



Farmers Foresters







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COOPERATIVE EXTENSION



Farmers Foresters





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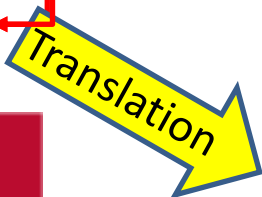
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Farmers Foresters



COOPERATIVE EXTENSION



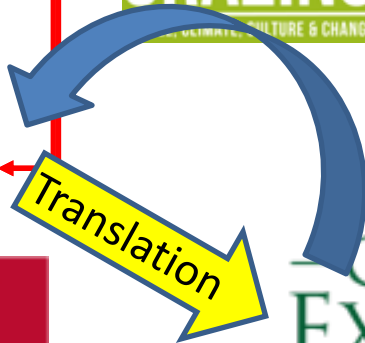


USDA United States Department of Agriculture  
CLIMATE HUBS



Farmers  
Foresters

Southern Regional  
Extension Forestry



COOPERATIVE -  
EXTENSION



Warnell School of Forestry  
& Natural Resources  
UNIVERSITY OF GEORGIA





# Purpose Audience



Climate Learning Network

The screenshot shows the Climate Learning Network website layout. On the left is a navigation sidebar with the CLN logo and a search bar. The main content area is divided into four sections: 'E-LEARNING MODULES' (top left, featuring a wind turbine), 'NEWS' (top right, featuring a forest), 'RESOURCES' (bottom left, featuring a stack of logs), and 'CONNECT WITH PEERS' (bottom right, featuring a landscape). A central banner displays the Climate Learning Network logo. The footer includes the USDA and extension logos, social media icons, a newsletter sign-up form, and a copyright notice for 2013 Southern Regional Extension Forestry.

CLN

Search ...

E-LEARN

RESOURCES

NEWS

CONNECT

JOIN

CONTACT

E-LEARNING MODULES

NEWS

RESOURCES

CONNECT WITH PEERS

Climate Learning Network

USDA extension

JOIN OUR NEWSLETTER

Email

Copyright © 2013 Southern Regional Extension Forestry

# CLIMATE, FORESTS, WOODLANDS



Climate Learning Network

Search ...

E-LEARN

RESOURCES

NEWS

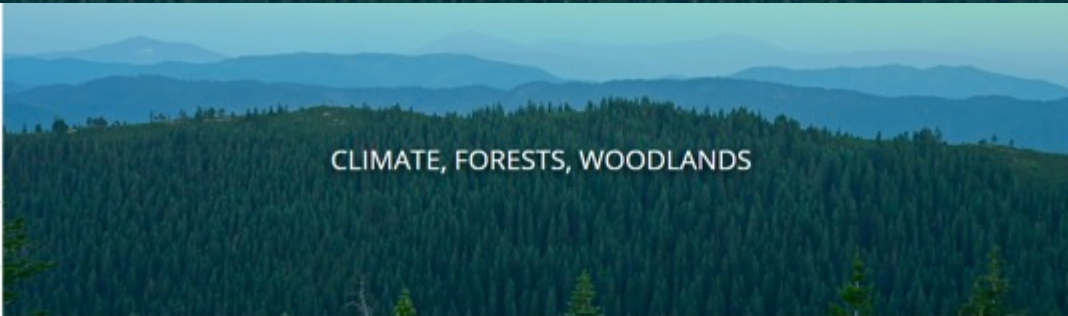
WEBINARS

CONNECT

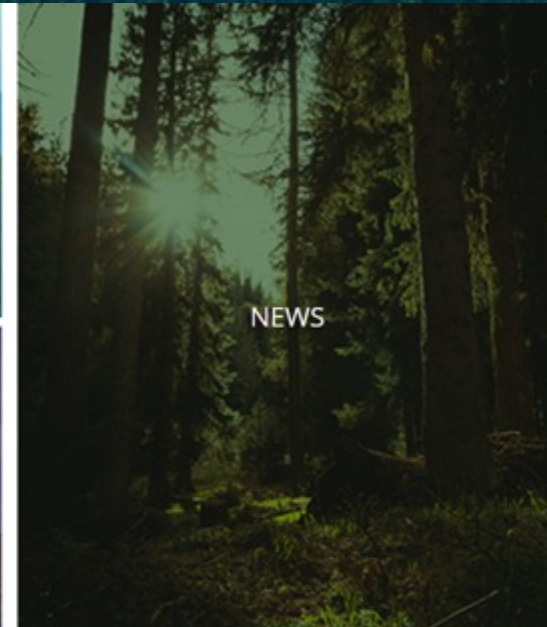
DISCUSS

JOIN

CONTACT



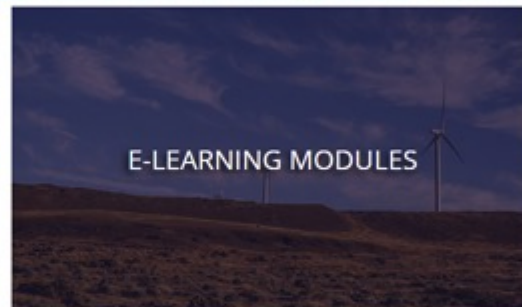
CLIMATE, FORESTS, WOODLANDS



NEWS



RESOURCES



E-LEARNING MODULES



WEBINARS





CFW

Search ...

 ASK AN EXPERT

 RESOURCES

 NEWS

 LEARN

 CONNECT

 ABOUT

 PARTNERS

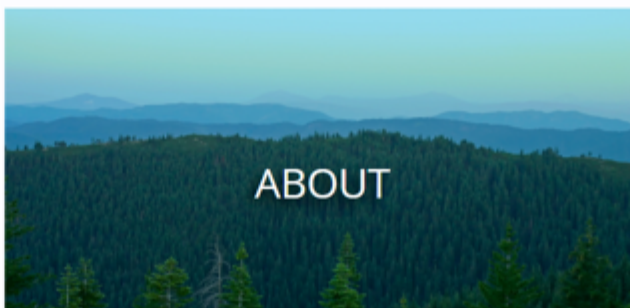


RESOURCES



CFW

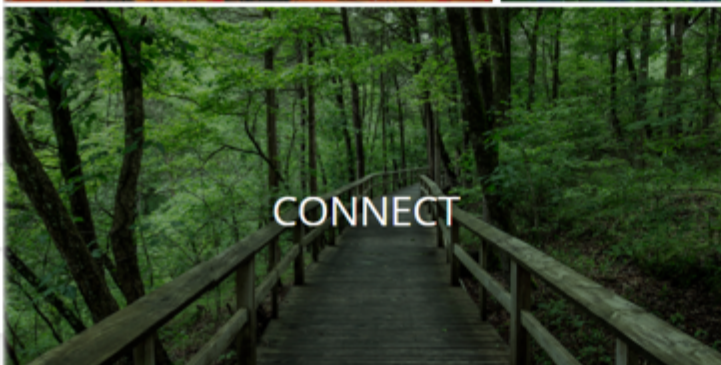
Climate | Forests & Woodlands



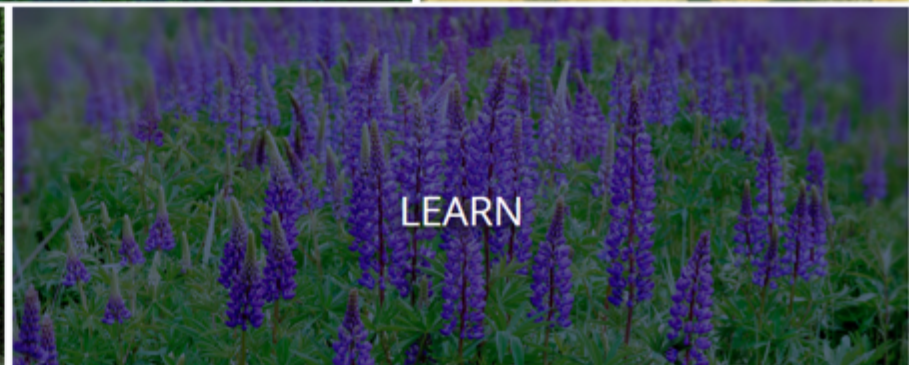
ABOUT



NEWS



CONNECT



LEARN





Climate Learning Network



## Approach Products:

- eLearning Modules
- Webinars
- Needs assessments
- Newsletter
- Climate literacy training



Climate Learning Network

## DISCUSS

### 1. Enter your email address

### 2. Select your region

Northeast  Northwest  Southeast  Southwest

### 3. Select Google Groups and click join to start discussing!

[select all](#) [select none](#)

- Northeast Climate and Weather – Aquaculture
- Northeast Climate and Weather – Crops
- Northeast Climate and Weather – Forestry
- Northeast Climate and Weather – Fruit
- Northeast Climate and Weather – Livestock
- Northeast Climate and Weather – Specialty

## NE Pilot Program

- Region and sector specific peer-to-peer discussion groups

[climatelearning.net/discuss](http://climatelearning.net/discuss)



# Competency Driven Climate Literacy

- [Consensus guided competency identification](#) using the online design of competencies (DECOMP) system



# Competency Driven Climate Literacy

- [Consensus guided competency identification](#)  
using the online design of competencies  
(DECOMP) system
  - 2 Day virtual competency development
  - Consensus driven
  - Panel of experts



# Climate Learning Network

[Help](#)

Climate Literate Extension Professional [View](#) [Print](#)

Integrate climate vulnerability concepts...	Apply exposure knowledge	Apply adaptive capacity knowledge	Apply sensitivity knowledge	Recommend actions to reduce exposure	Recommend actions to increase adaptive capacity
Integrate climate system concepts into ...	Apply climate system concepts to extension programming	Communicate climate system concepts to clients	The Climate Literate will know the difference between weather and climate		
Demonstrate Human Impact	Communicate scientific evidence for human impact to extension clients	The Climate Literate will know how human activities drive climate change.		The Climate Literate will know how human activities drive climate change.	
Mitigation	Identify actions that provide multiple benefits to ANR systems and society as a whole while reducing heat trapping gasses in the atmosphere			Evaluate potential mitigation actions in the context of local ANR systems	
Adaptation	Identify adjustments that moderate harm and capture opportunities while providing multiple benefits to ANR systems and society as a whole.			Evaluate potential adaptation opportunities in the context of local ANR systems	
Resilient Management	Identify adaptations that enhance the resilience of local ANR systems.	Evaluate adaptations that enhance the resilience of local ANR systems.	Recommend adaptations that enhance the resilience of local ANR systems.		

Climate Policy	Recognize barriers and opportunities for extensions clients created by international, national, and state climate change policies.
Identifies the climate policies that apply to their clientele. A climate literate extension professional understands the policies, agency directives, and politics and their effect on climate solutions.	Deliver information about climate change barriers and opportunities to extension clients
	Communicate how climate change policies affect ANR systems
	Recognize impact of key decision makers on climate change policy
	The Climate Literate will know how federal, state, and local climate policy effect their clients.
	The Climate Literate will know where to find the federal, state, and local climate policy analysis and interpretation for local ANR systems.
	The Climate Literate will know USDA building blocks for Climate smart ANR (Voluntary and incentive based, focused on mult econ and env benefits, meets producer needs, Cooperative and focused on building partnerships, assess progress and measure success).
	<input checked="" type="checkbox"/> <b>Assessment:</b> Provides recommendations to clientele based on their interpretation of policies as they represent barriers or opportunities through the lens of climate change.
	<input checked="" type="checkbox"/> <b>Rollup:</b> <a href="#">Is an Extension Professional</a>

Communicate climate issues	Apply best communication practices with extension clients (i.e. ELFLAND, PIE, etc)	Identify needs, beliefs, and values of client audience	Establish trusted communication and common goals
Maintains relevant climate knowledge	Understand peer reviewed resources for current climate information	Participate in science-based climate related education events	Understand current consensus in climate science
Contribute to shared learning	Participate in climate-related networks (i.e. CLN, SECC, CFW, etc.)	Establish purposeful two-way communication with peers, clients, and partners	Disseminate successful client, partner, and network experiences
Is an Extension Professional	Demonstrates capabilities of extension professionals	Develops innovation and communication channels to support future ANR success	Demonstrates respect for diverse values and beliefs





Climate Learning Network

# Competency Driven Climate Literacy

- Online Curation
- Curriculum design
- Customized training
- competency-based learning management system



Climate Learning Network

# climatewebinars.net

**Webinar Portal for CLIMATE SCIENCE**

Home Live Webinars On-demand Webinars Calendar FAQ About Us

You are here: Home

### Welcome

Through this webinar portal you can stay up-to-date with the latest research and industry practices in forestry, conservation, bioenergy, climate change and natural resources. Most of our user friendly webinars provide the opportunity to accrue continuing education credits, from professional accrediting organizations such as Society of American Foresters, International Society of Arboriculture, The Wildlife Society, Certified Crop Advisors, and others. You can receive continuing education credits for select live and on-demand webinars, which makes refreshing your knowledge on natural resource topics from your desktop fast, economical, and easy.

The webinar portal is a service of the Southern Regional Extension Forestry Office, North Carolina State University's Extension Forest Resources, Texas AgriLife Extension Service, other participating land-grant universities, the USDA, the USDA Natural Resources Conservation Service, the USDA Forest Service, and the USDA Northeast Climate Hub.

### Webinar Portal Infographic

## Upcoming Webinars

To learn more about one of these upcoming webinars on the Webinar Portal, click on the title and you'll be directed to the webinar's home page where you can read the details of the webinar and find out how and when to register. To see a list of upcoming webinars from our other Webinar Portal partners, select a category from the drop down below.

Select Webinar Category:



### Climate Science Webinars

Date	Title
03/29/2018	Drought & Climate Galleries
04/12/2018	Discussing Climate Change with Agriculture and Natural Resources Audiences: Professional Perspectives





Climate Learning Network



You are here: [Home](#) → [Webinars](#) → [A Changing Climate for Agriculture: Tools for Kick-starting Adaptation](#)

### A Changing Climate for Agriculture: Tools for Kick-starting Adaptation

#### Green Savings Analysis!

Utilizing webinars to stay up-to-date and to continue your professional training or for just personal enrichment save and saves a little piece of our planet. Our Green Calculator keeps track of the savings for each webinar we offer.

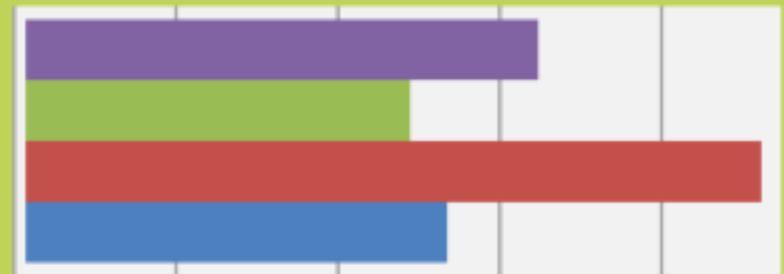
By hosting this webinar through the Webinar Portal, it's estimated that we have been able to eliminate **4,170** mile physical locations where similar training would be held, saved **80** hours of travel time, saved **208** gallons of fuel, the release of **4,045** lbs of CO2 into the atmosphere. This is a cost savings of approximately **\$4,371** for the **23** who participated in this webinar. The estimated average cost savings per participant is **\$190**.

The graph below shows how much 'green' has been saved by participants for this webinar to-date!



## Green Savings!

Click on the graph below or click **here** for a detailed Green Savings analysis of this webinar.



A Part of the Cooperative Extension System





Climate Learning Network

# Webinar Based eLearning Development (WebBED)

- Short time frame for initial 6 modules
- Webinar deliverables
- Adobe Captivate template
- Rapid editing/deployment



# Webinar Based eLearning Development (WebBED)

**Climate Learning Network**

Communicating Climate Change Impacts and Options to a Disbelieving Audience

USDA extension  
America's Research-Based Learning Network

Multiple Choice

Question 7 of 10

Review the previous video here

Which of the following statements most accurately reflects the views of most Americans?

- A) Climate change is coming but it is a problem for future generations.
- B) Climate change is here and there is nothing we can do about it.
- C) Climate change is not real and the weather will always be the same.

Submit

Module 1: Introduction

Continue

USDA extension  
America's Research-Based Learning Network

# E-LEARNING MODULES



## 1. Climate Science 101 for Extension Professionals

*Dr. Marshall Shepherd (University of Georgia)*



## 2. Communicating Climate Change Impacts & Options to a Disbelieving Audience

*Dr. Steve McNulty, US Forest Service*

*This module provides 1.0 Cat 1 - CF Continuing Forestry*

*Education Credit from SAF*



## 3. A Fair and Balanced Look at Climate Variability, Change & Impacts Across the Southeastern United States

*Dr. Steve McNulty, US Forest Service*

*This module provides 1.0 Cat 1 - CF Continuing Forestry Education Credit from SAF*



## 4. Vulnerability Assessments, What We Did and What We've Learned

*Dr. Chris Swanston, Northern Institute of Applied Climate Science*

*This module provides 1.0 Cat 1 - CF Continuing Forestry*

*Education Credit from SAF*



## 5. Agricultural Adaptation Practices

*Dr. Mark Risse (University of Georgia), Dr. Brenda Ortiz (Auburn University), and Dr. Clyde Fraisse (University of Florida)*

*This module provides 0.25 CEUs CM from Certified Crop Advisers*

*(CCA)*



## 6. Stories from the Field

*Dr. Laura Lengnick, Cultivating Resilience, LLC, Asheville, NC*

*This module provides 0.5 CEUs CM from Certified Crop Advisers (CCA)*



## 7. Resilient Pine Management

*Mark Megalos, North Carolina State University, and Eric Taylor, Texas A&M University*



## 8. Integrating Climate Science into Programs and Decision Making

*William Hohenstein, Director, USDA Climate Change Program Office*

# eXtension Climate Literacy Certification



## Climate Learning Network

Climate Literacy Certification

Welcome to the Climate Learning Network's Climate Literacy Certification course. You will begin the course by taking the climate literacy certification pre-test to serve as reference to evaluate your progress. Your score on this pre-test will not reflect on your grade for this course. You will then be free to take the modules in any order you desire. You will receive a certificate, badge and associated CEUs for each module that you complete.

When all modules are finished you will be able to take the climate literacy certification exam. You will only need to score 75% or better on this exam to receive certification after completing training.




- Climate Literacy Pre-Test
- Climate Science Basics
- Climate Communication
- Vulnerability Assessments
- Agricultural Climate Adaptation
- Managing Climate Risk
- Resilient Pine Management
- National Climate Assessment
- Southeast Regional Training
- Climate Literacy Certification Exam

[campus.extension.org](http://campus.extension.org)



Climate Learning Network



CLN

Search ...

- E-LEARN
- RESOURCES
- NEWS
- CONNECT
- JOIN
- CONTACT

## RESOURCES

In this area we can talk about all the wonderful resources listed below and the capability of sorting based on topic. Hoo-hah!

NAME ▲	TYPE	TOPIC	REGION	GROUP
Climate and Agriculture in the South East	Blog	Climate Change	National	UGA Extension
Data Tools	Database Tools	Climate Change	Southeastern US	Southern Climate Impacts Planning Program
Ensuring Sustainable Agriculture in the Face of a Changing Climate	A handbook of resources	Climate Change	National	Sustainable Agriculture Research, Education SARE
Ensuring Sustainable Field Crop Agriculture in the Face of a Changing Climate	Curriculum	Climate Change	National	Education SARE, Sustainable Agriculture Research
Greenhouse Gas Estimation	Documents/Fact sheet	Greenhouse Gas	National	USDA
ipmPIPE Components	Decision Support Tools	Pest Management	Southern Region	ipmPIPE
Massachusetts Fish and Wildlife Climate Action Tool	Climate Action Tool	Climate Change	National	Northeast Climate Science Center
Native Plants and Ecosystem Services	Booklet	Plants	National	KBS LTER
Southeast Regional Climate Hub Assessment of Climate Change Vulnerability and Adaptation and Mitigation Strategies	Article/PDF	Climate Change	Southeast Region	Southeast Regional Climate Hub

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[twitter.com/climatelearningnetwork/](https://twitter.com/climatelearningnetwork/)  
[climatelearning.net/](https://climatelearning.net/)

