Facilitating Cross-Sector Communication

Leslie Boby
Mark Megalos

Pine Plantation Research and Decision Support Tool Rollout

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United States Department of Agriculture
National Institute of Food and Agriculture

This Talk

- ❑ Tasks
- ❑ Findings
- ❑ Takeaways

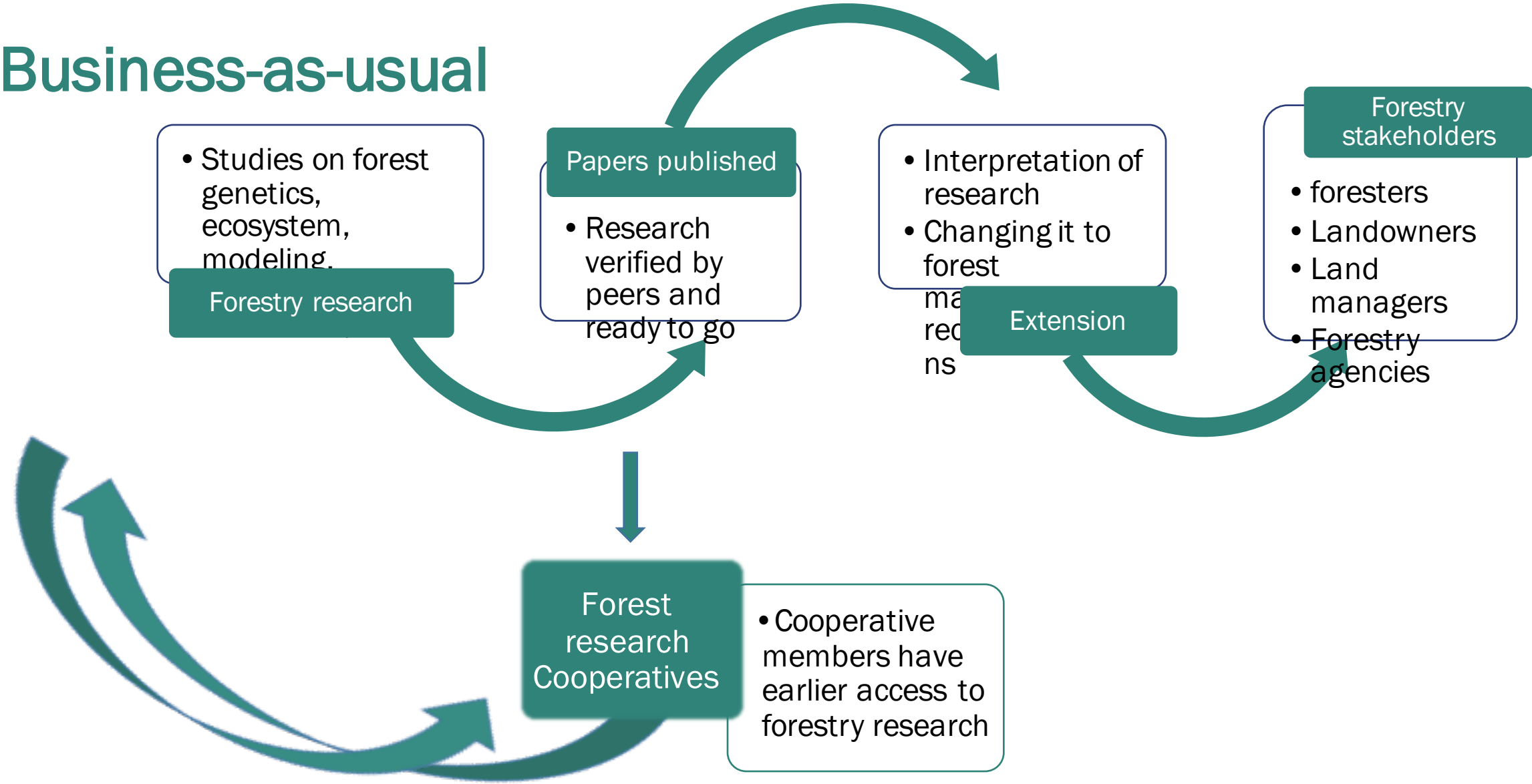
PINEMAP Challenge

Create, synthesize, and *disseminate* the knowledge that enables southern pine landowners to:

- ❑ **Manage forests**
  to increase carbon uptake by 15% by 2030;
- ❑ **Increase efficiency**
  of nitrogen/fertilizer inputs by 10% by 2030;
- ❑ **Adapt forest management approaches and plant improved tree varieties**
  to increase forest resilience and sustainability under variable climates.

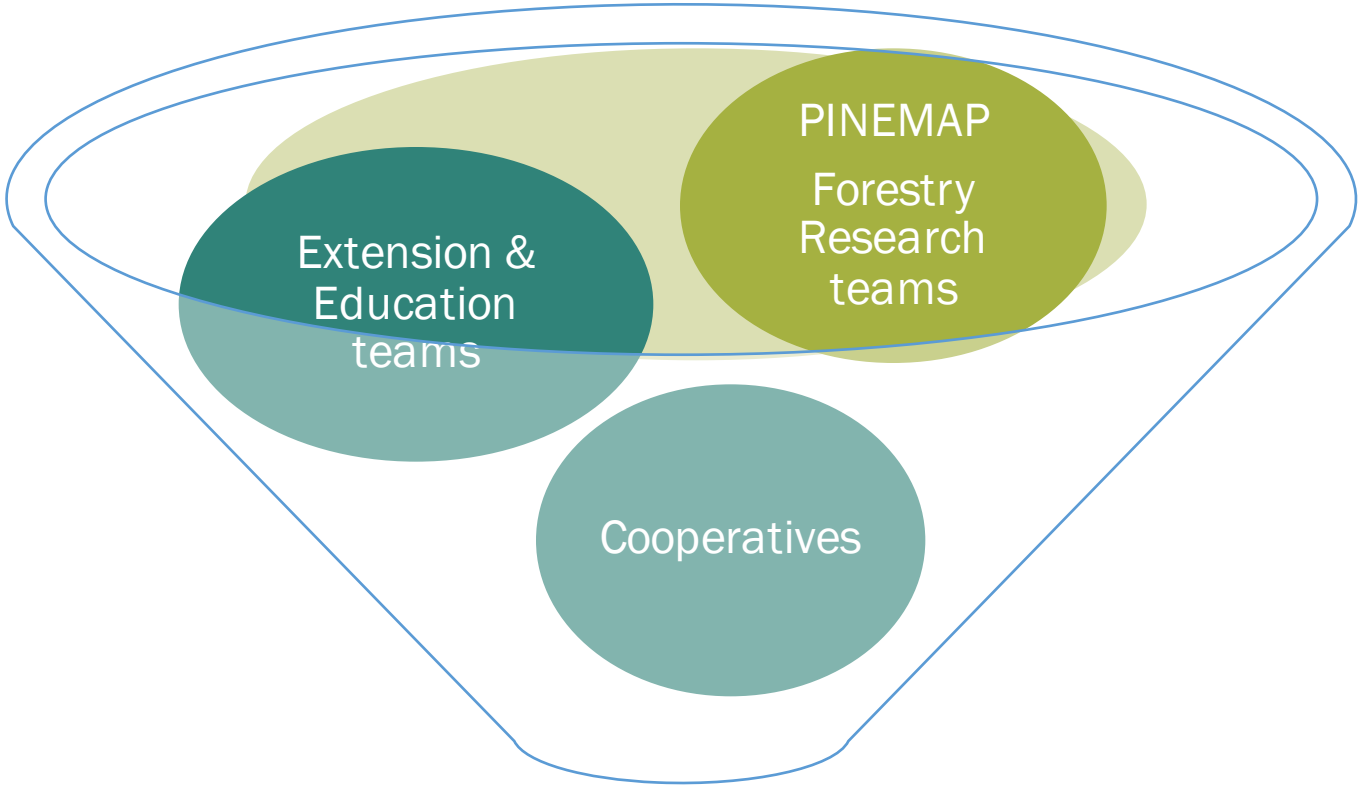
Research to Stakeholder Pipeline

Business-as-usual



PINEMAP

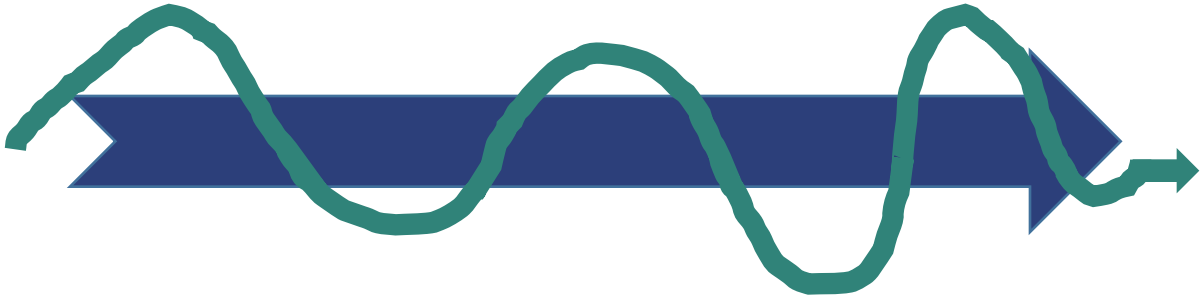
RESEARCH EXTENSION EDUCATION



Forest managers

Our Tasks

PINEMAP Forestry research



Changes in forest management

Needs

Define Existing Stakeholder needs and climate needs

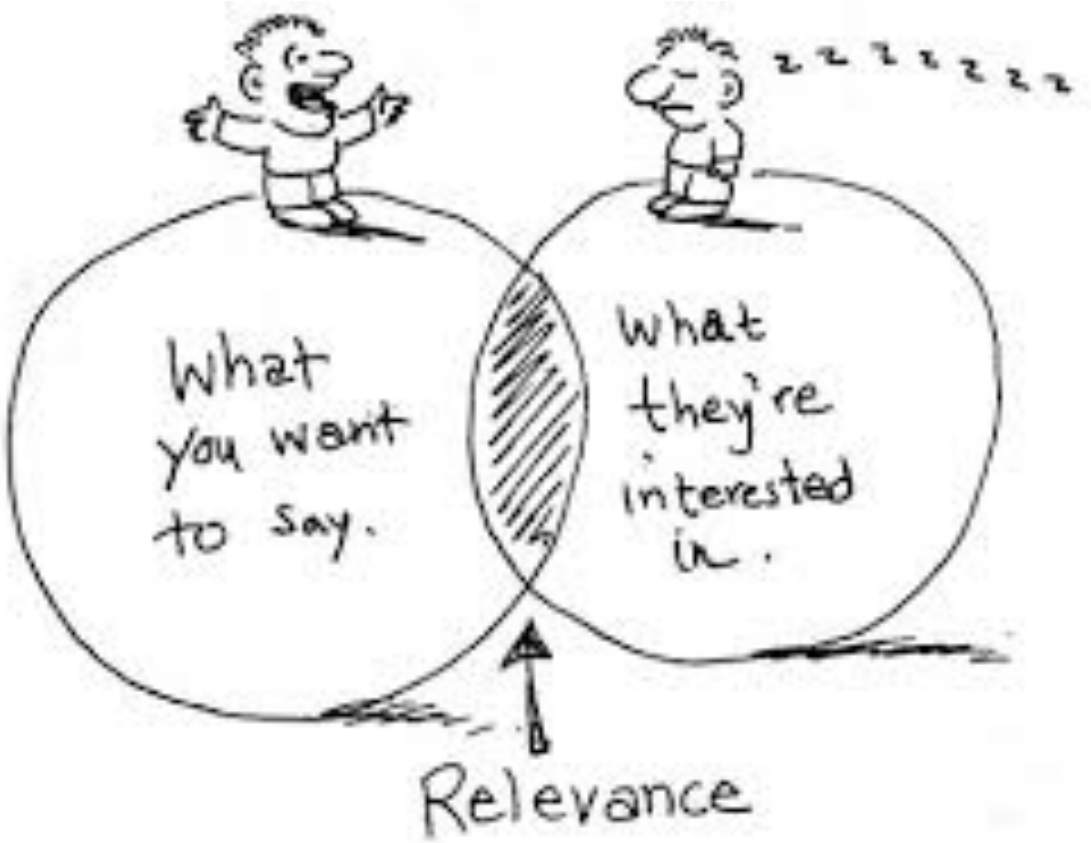
Share

Disseminate Research Results

Message

Refine the message(s) and become the messengers

Task # 1
Capture Stakeholder Needs

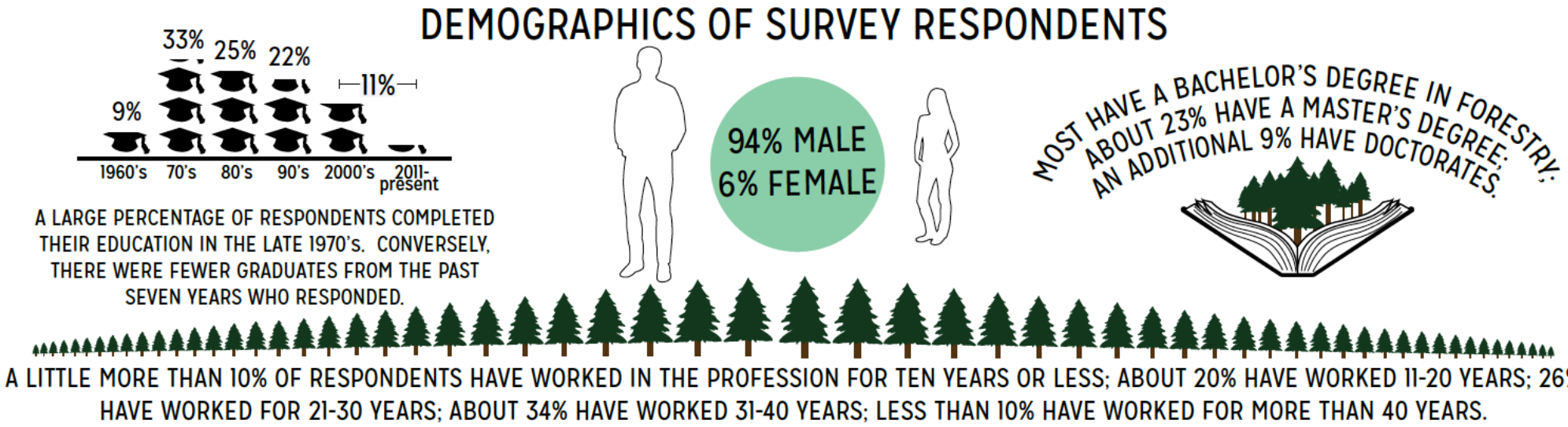


Main Stakeholders

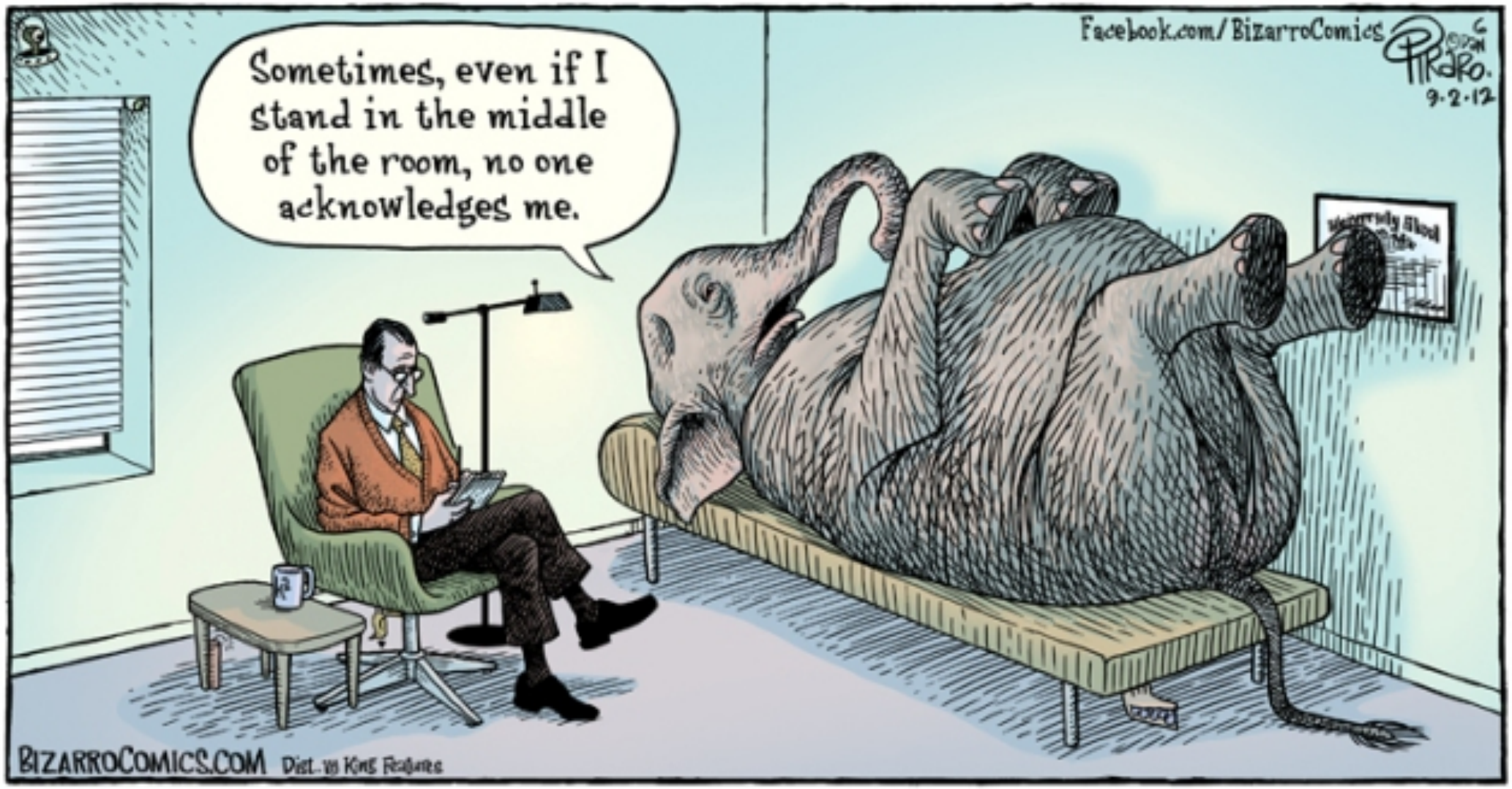
- Foresters
- Industrial Cooperative members
- Extension agents
- Forest landowners
- Limited resource landowners
- Tree farmers
- Educators/Students K-grad school

Stakeholder Research

- Needs
- Interests
- Receptivity
- Demographics

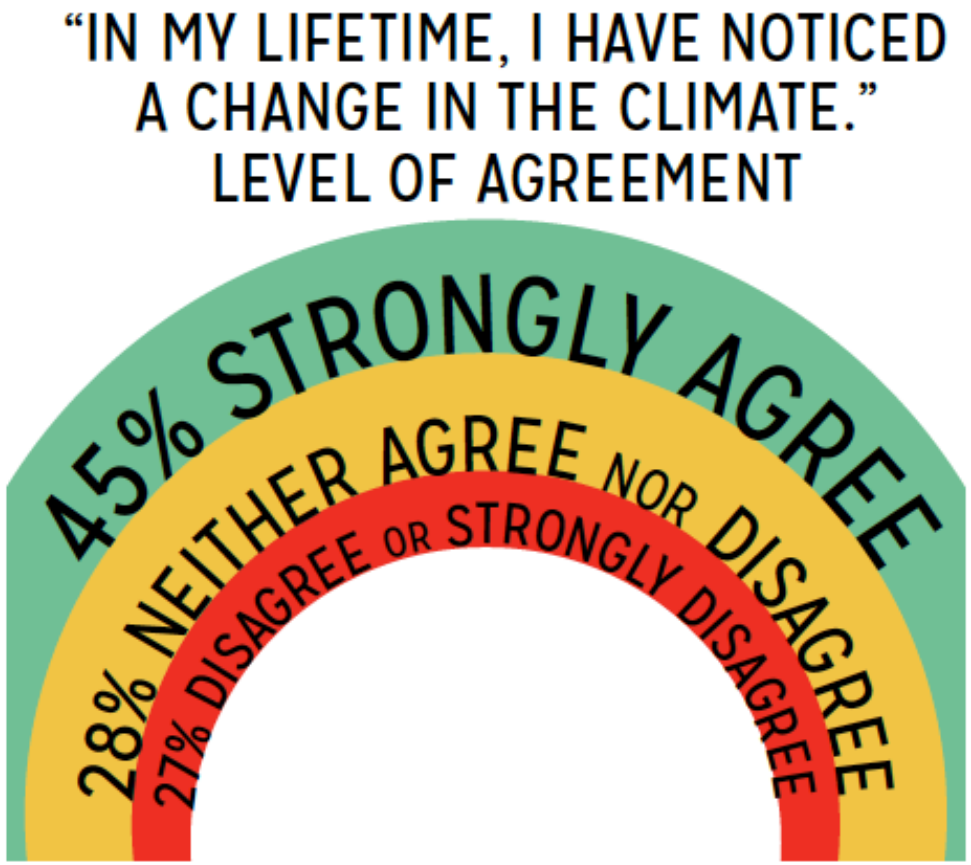


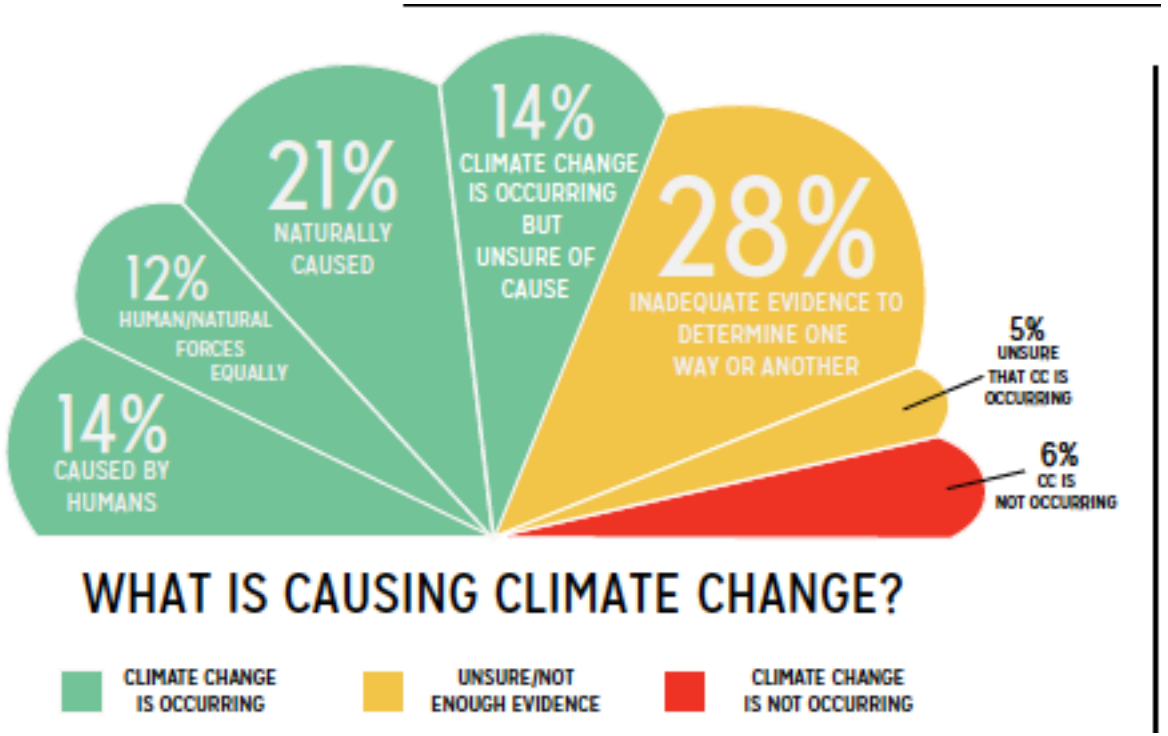
Acknowledging the “E” in the Room



Foresters

- 61% agreed Climate Change occurring

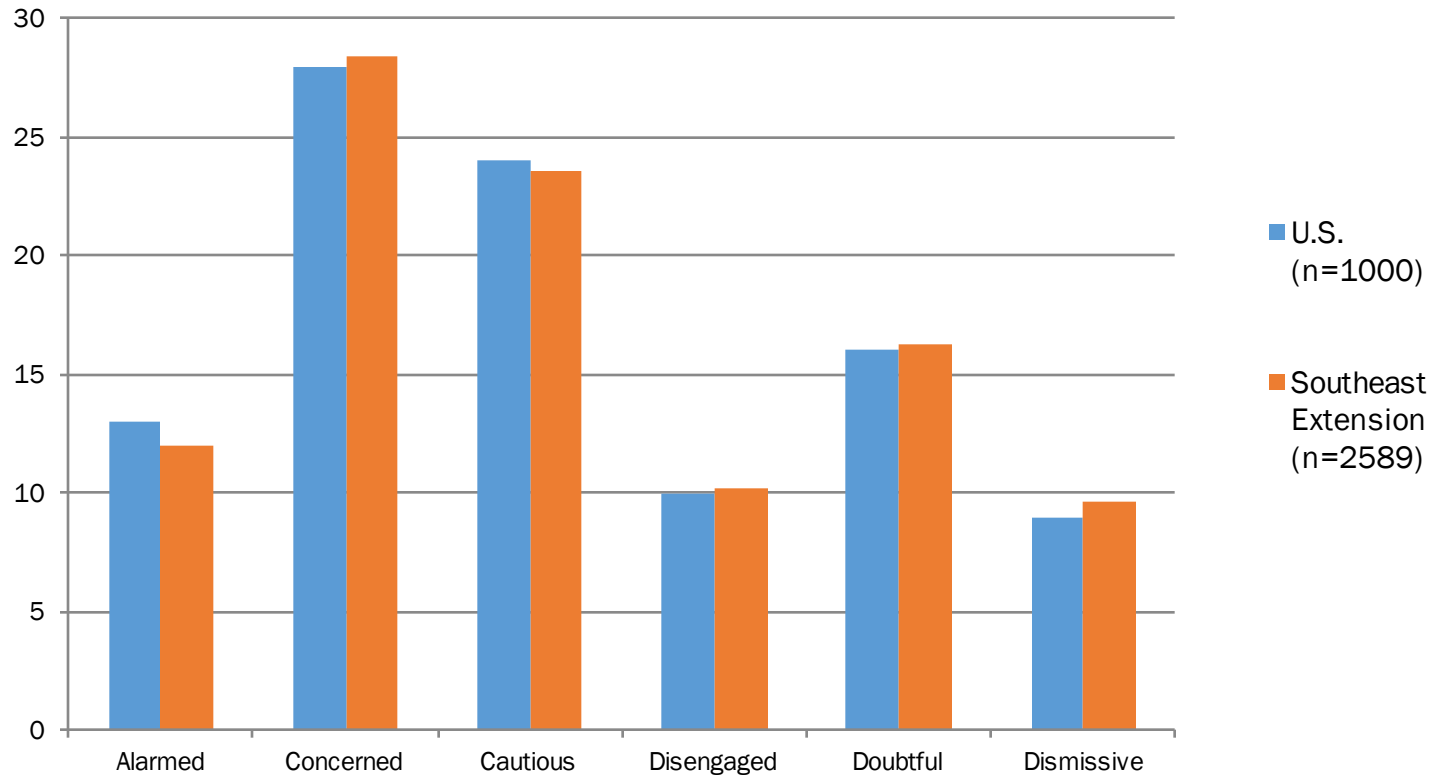




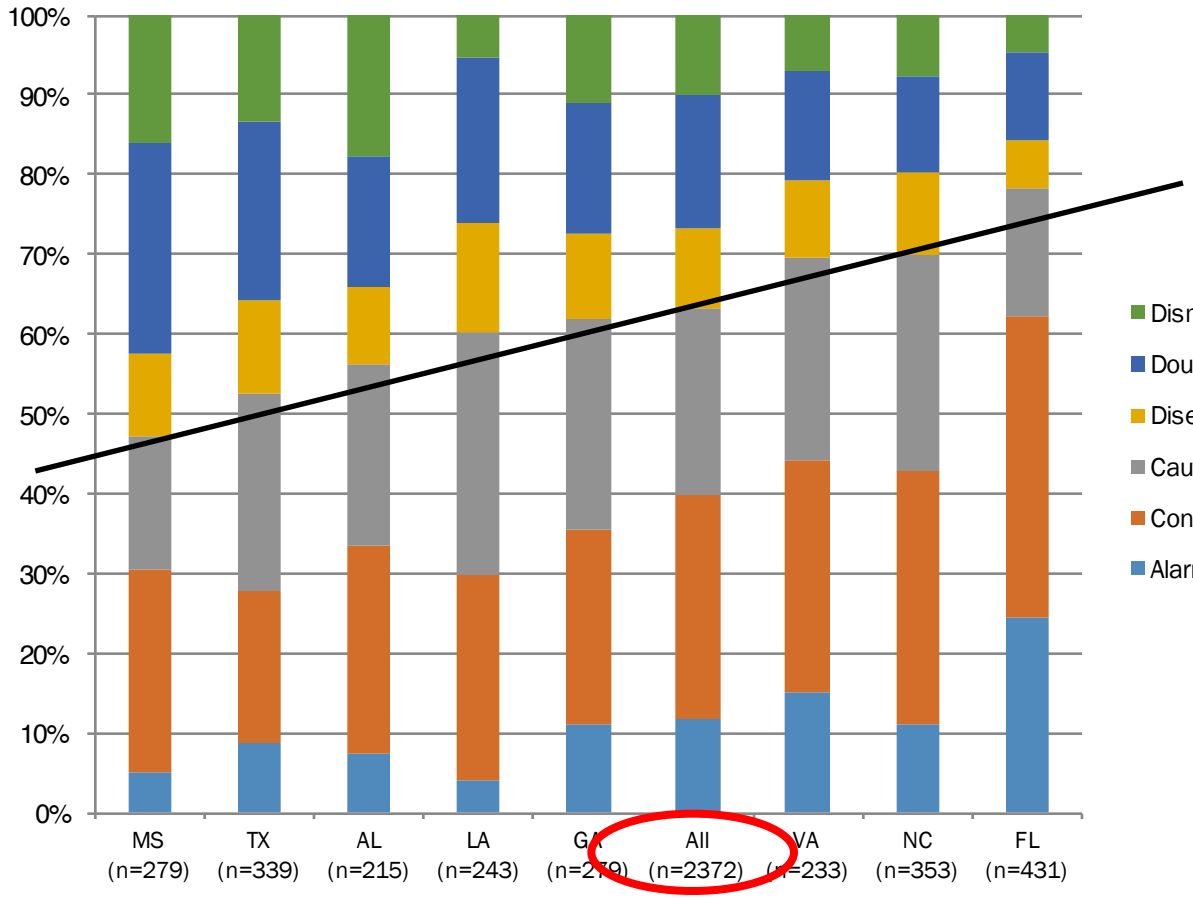
Extension agents

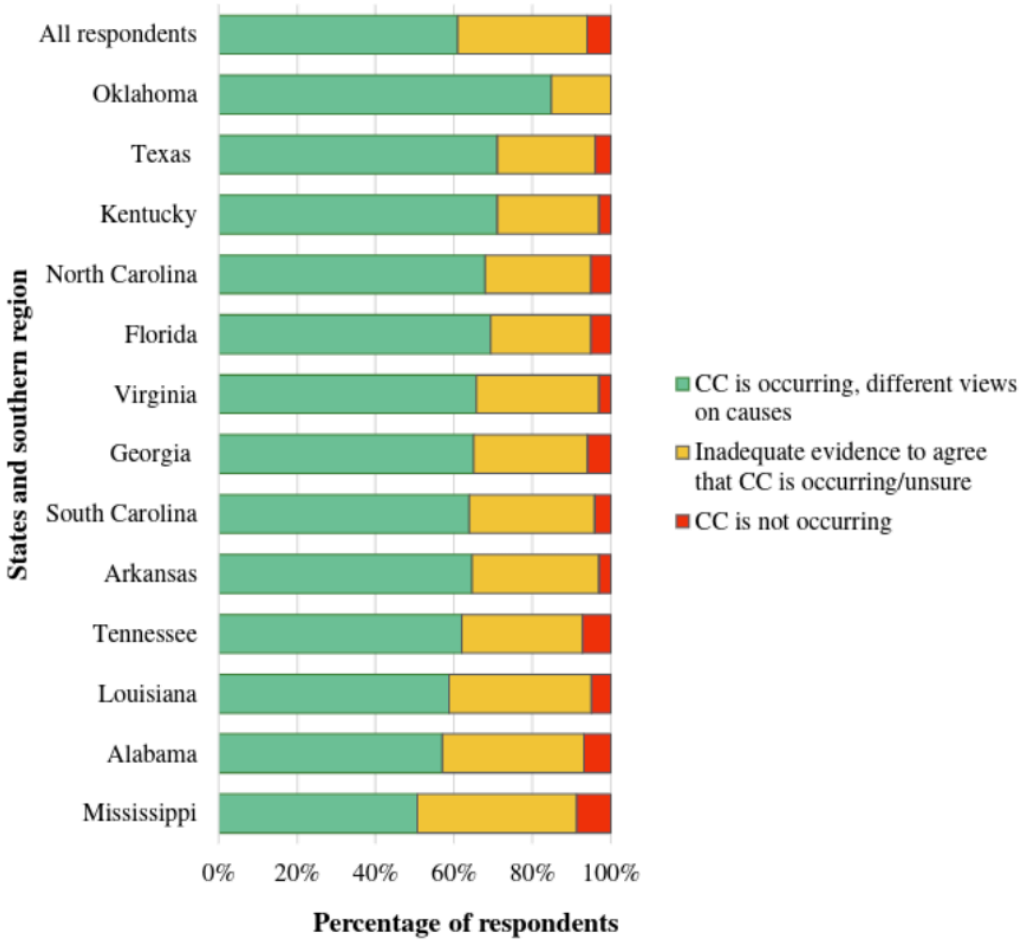
As a whole, Extension professionals mirror the general public in perceptions of climate change.

- 70% Cautious, Concerned or Alarmed about Climate Change
- Gender and Political Differences
- Obstacles to Outreach on Subject

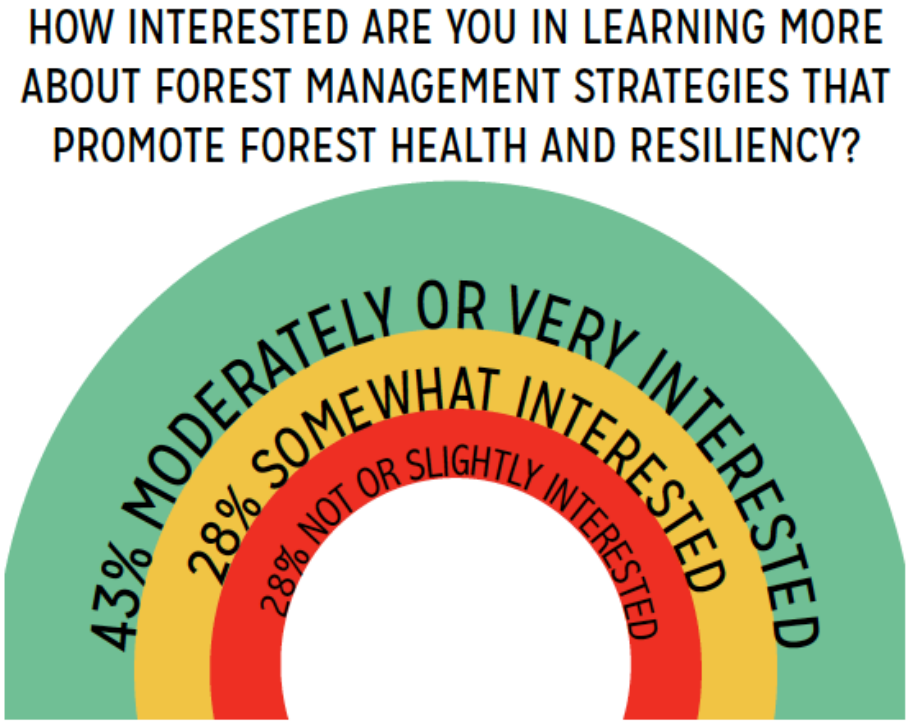


Location, location, location



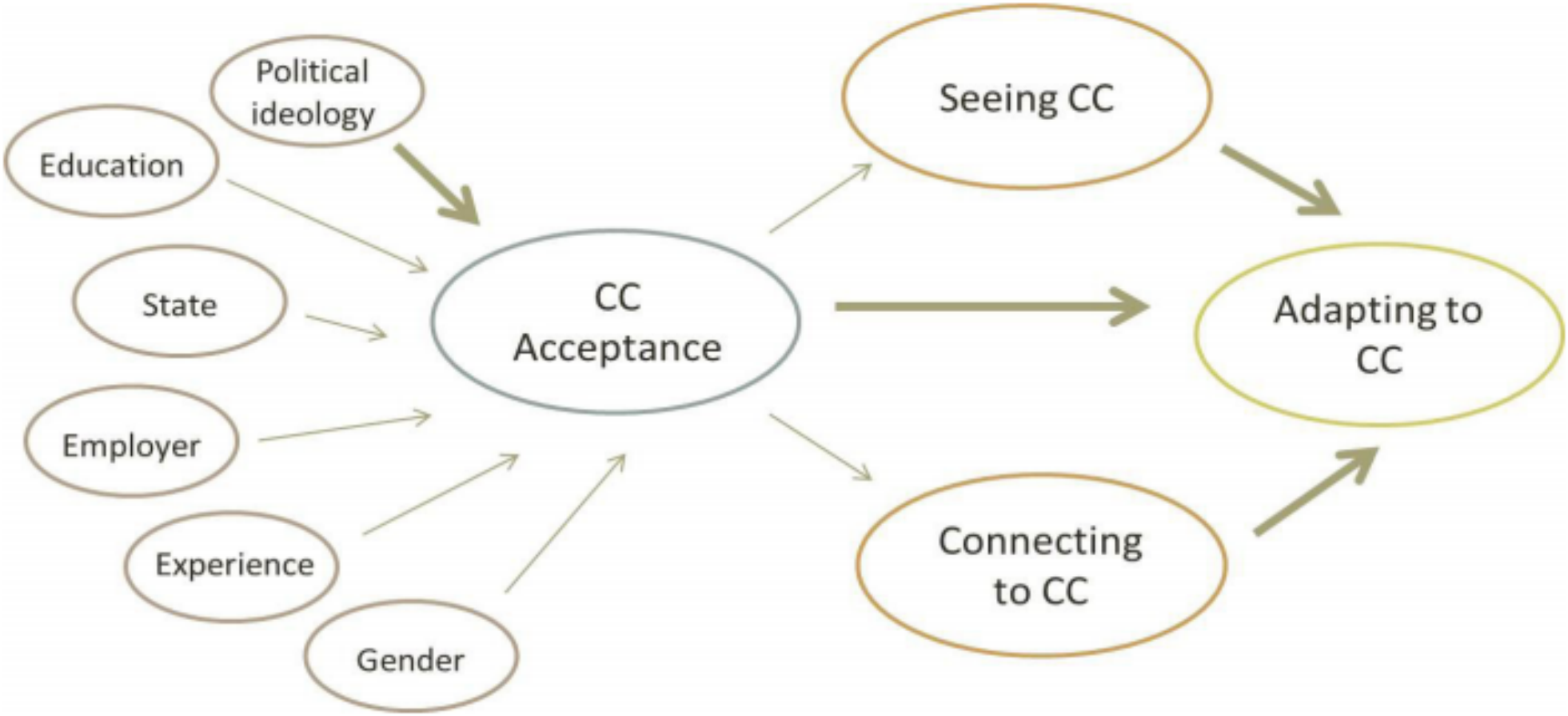


Risk Reduction and Resilience

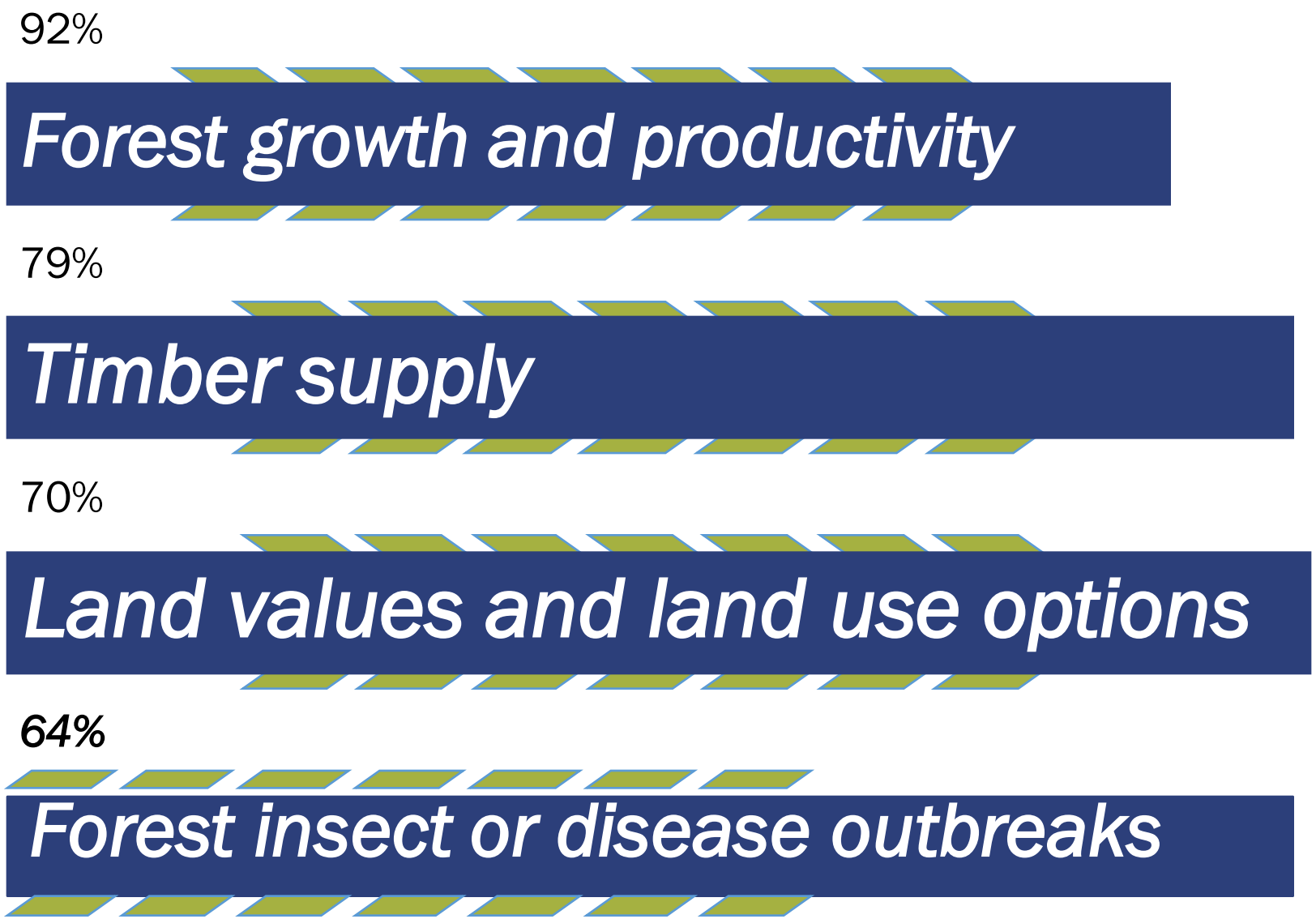


Concerns linked to Action

Connect Concern to Adaptive Action



Forest Cooperative Top Research Needs



Specific Research Needs

Important/V. Important

75%

- Resilient GENOTYPES

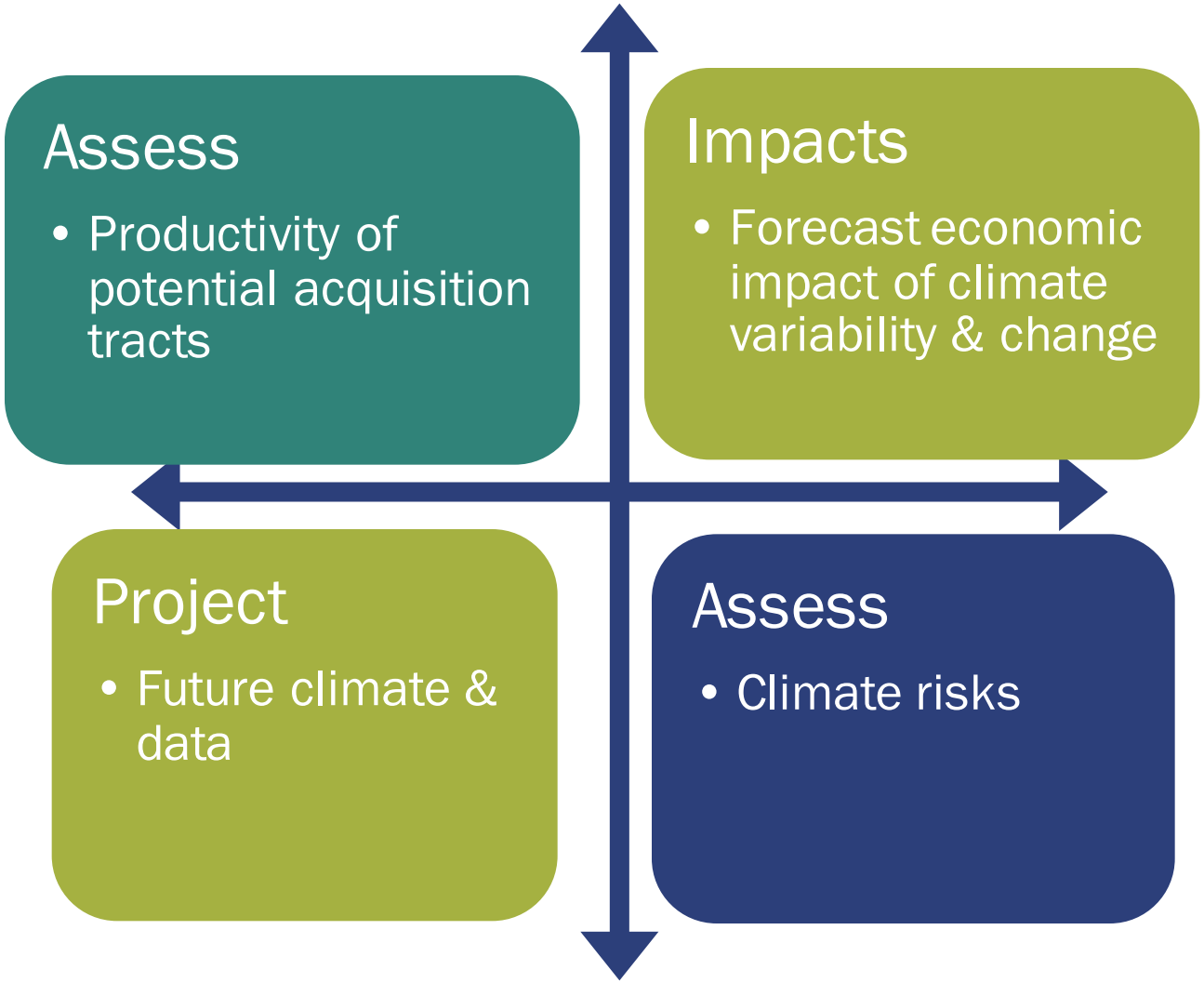
72%

- Enhanced YIELD Breeding
- Silvics for Rigor/Productivity

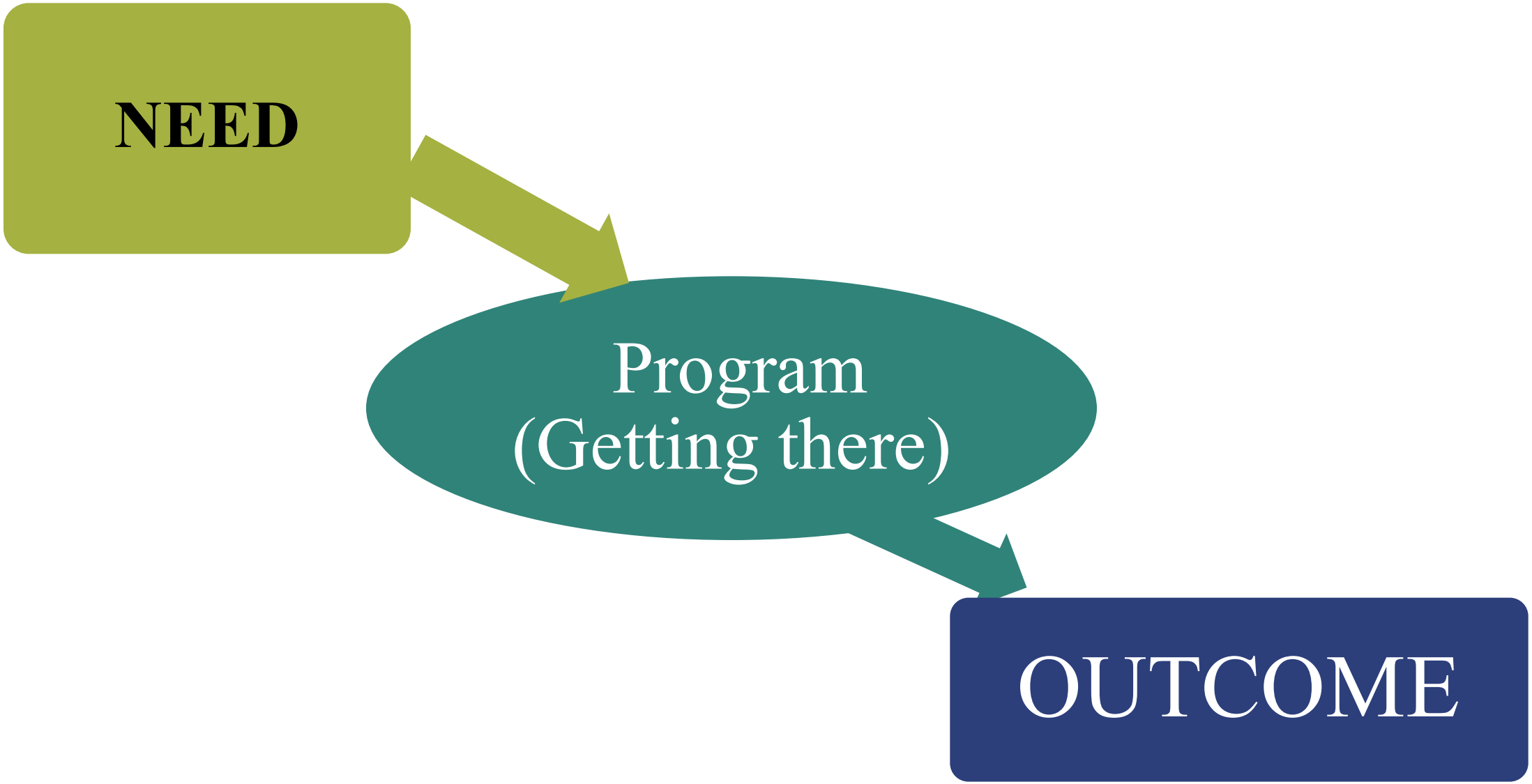
68%

- Species/Genotype Selection
- Fertilization to Enhance Growth

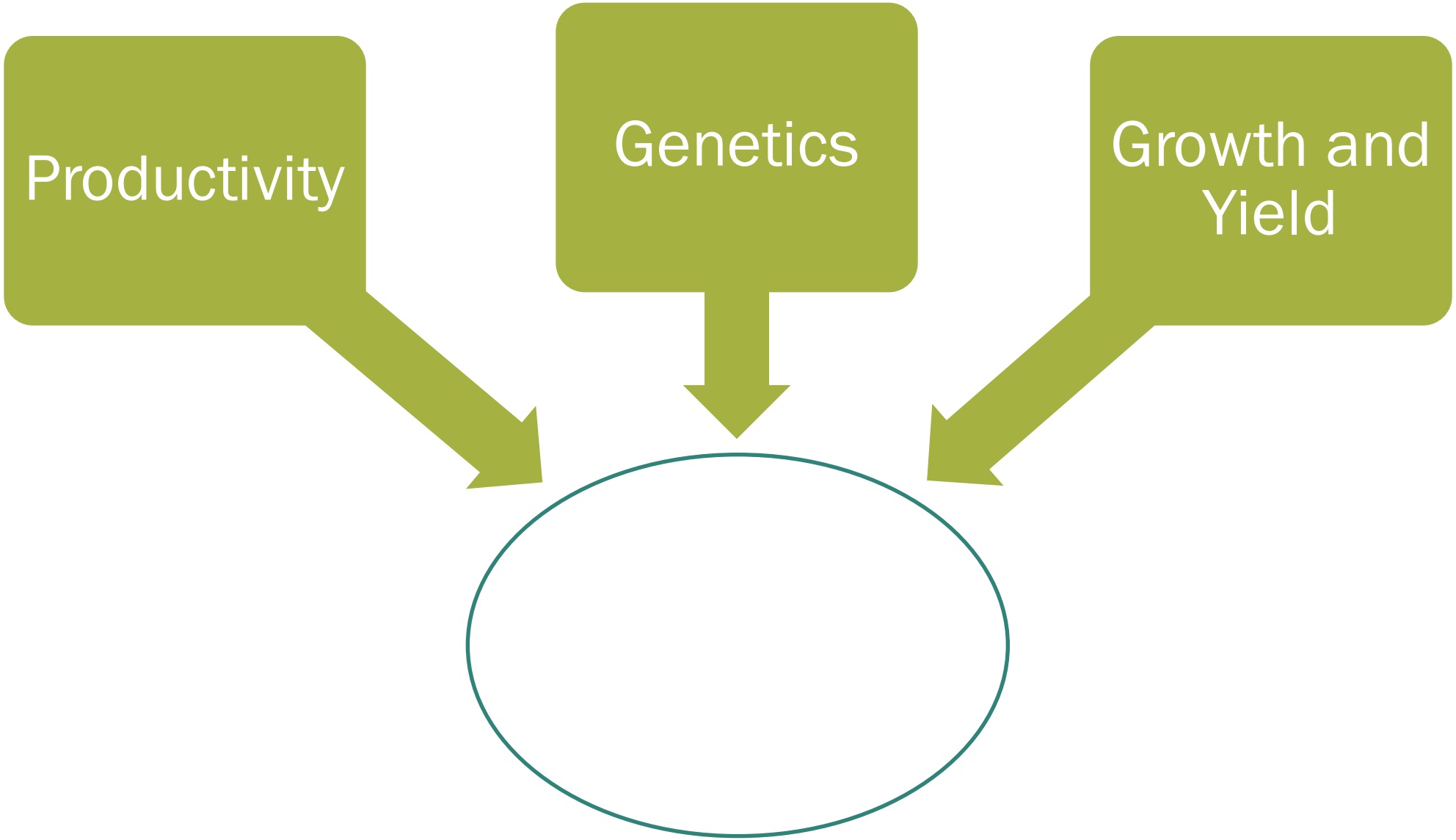
Top Research Needs: Models & Projections



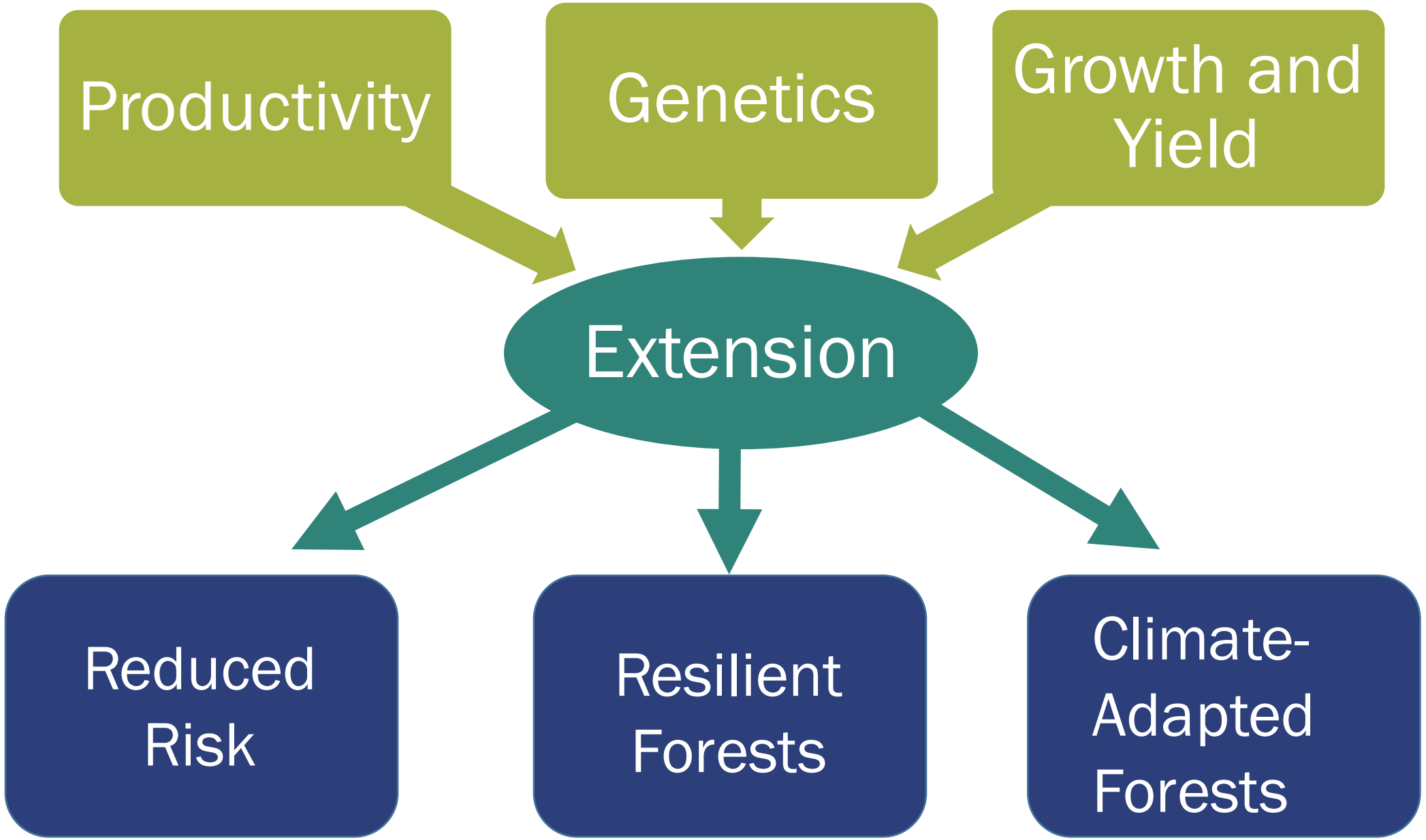
Standard Extension Approach



PINEMAP Approach

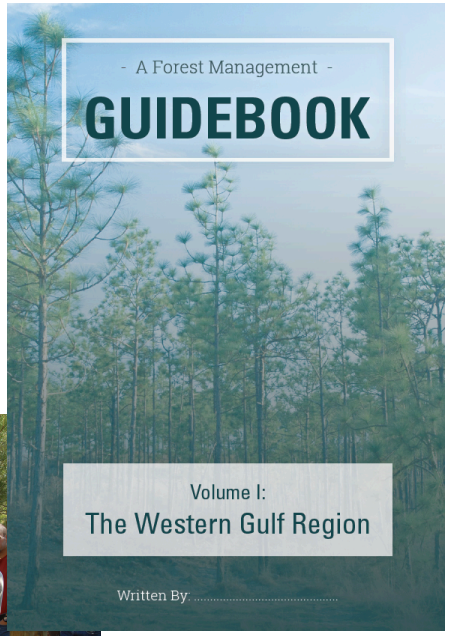


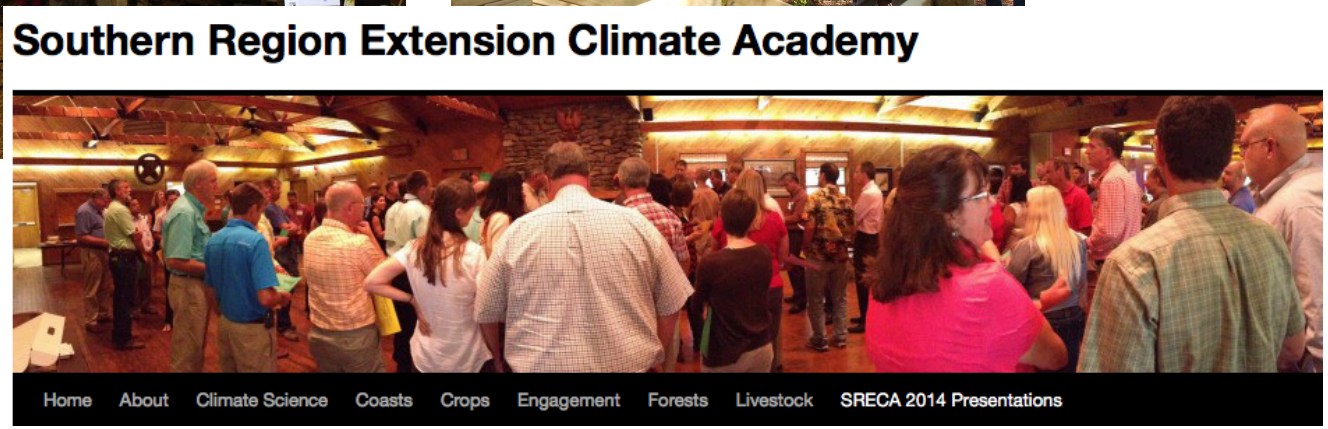
PINEMAP Approach



Extension and Education Accomplishments

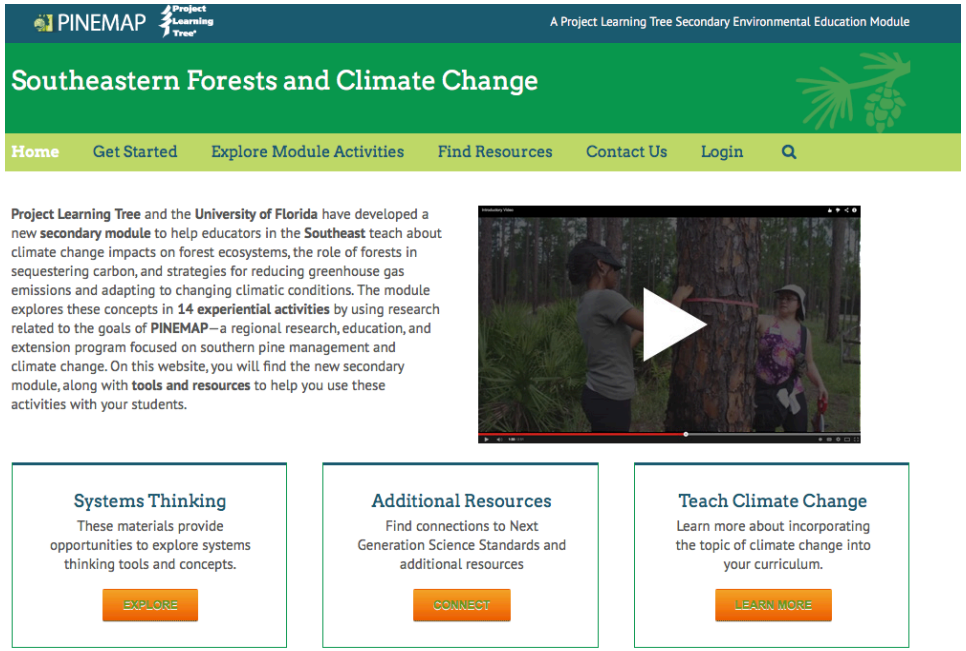
- Surveyed/Confirmed needs,
- Refined Messages
- Tested training approaches for effectiveness





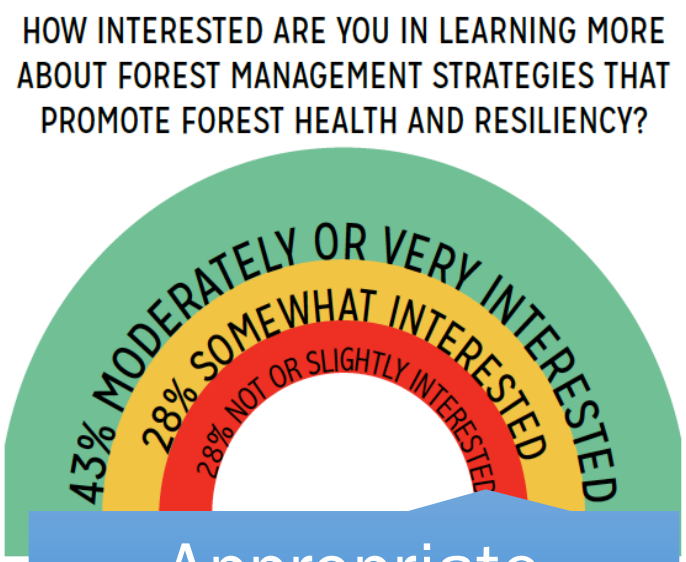
Education Team Accomplishments

- Legacy of work and new generation of multi-disciplinary scholars/researchers
- 2 PINEMAP- minted Extension Specialists
- Undergraduate Mentoring Summer interns
- Graduate student online training in Extension
- Project Learning Tree Modules to educate K-12 Students on forestry
- Climatologists secondary education in forestry

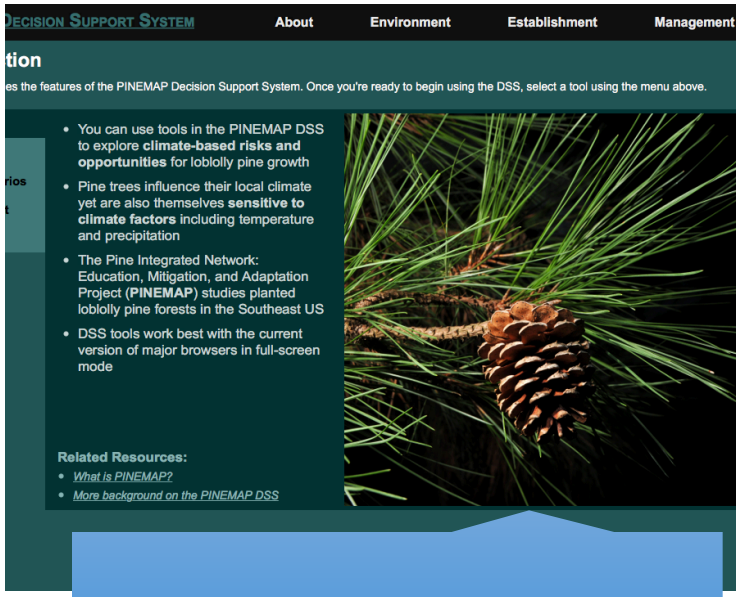


Stakeholder Deliverables

Customize Literature



Appropriate Messaging



Targeted Training

What WE ACCOMPLISHED:

- Defined Audience NEEDS
- Released Results Successfully
- Refined the Message
  - Started with Concerns
  - Focused on Resilience!
  - Focused on Stressor/ Risk Reduction

PINEMAP

Thank you!
From the People of PINEMAP
Questions?

PUBLICATIONS OF NOTE:

Southern Foresters' Perceptions of Climate Change: Implications for Educational Program Development

Climate Change Attitudes of Southern Forestry Professionals: Outreach Implications

Morris, Hilary L C; Megalos, Mark A; Hubbard, William G; Boby, Leslie A. **Journal of Forestry**; Bethesda 114.5 (Sep 2016): 532-

Southeastern Foresters' Climate Observations: State Comparisons and Spatial Trends

Rachel E. Burnett, Mark A. Megalos, William Hubbard, Leslie Boby, and Hilary L. C. Morris

2013 Climate Change Attitudes of Southeast Forestry Professionals: Implications for Outreach

Hilary Morris[1,5] • Mark Megalos[2,5] • William Hubbard[3,6] • Leslie Boby[4,6]

PUBLICATIONS OF NOTE:

North Carolina Cooperative Extension Professionals' Climate Change Perceptions, Willingness, and Perceived Barriers to Programming: An Educational Needs Assessment

Cooperative Extension and Climate Change: Successful Program Delivery

Increasing Response Rates to Web-Based Surveys

Harnessing homophily to improve climate change education

Martha C. Monroe, Richard R. Plate, Damian C. Adams & Deborah J. Wojcik

Message in a Bottleneck? Attitudes and Perceptions of Climate Change in the Cooperative Extension Service in the Southeastern United States

The Six Americas of Climate Change: Perceptions of Southeast Extension Professionals