

# Agriculture and Climate Change Research Priorities: Outcomes of a Systematic Horizon Scan

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## Background

The complexity and urgency of the climate crisis demands an unprecedented convergence of disciplines, approaches and perspectives to accelerate effective and just solutions.

This calls for a new framework to inform the priorities for federal funding for climate change and agriculture research, extension and programs.

Critical to guiding these funding priorities is understanding the key knowledge gaps, opportunities and threats related to climate change and agriculture.

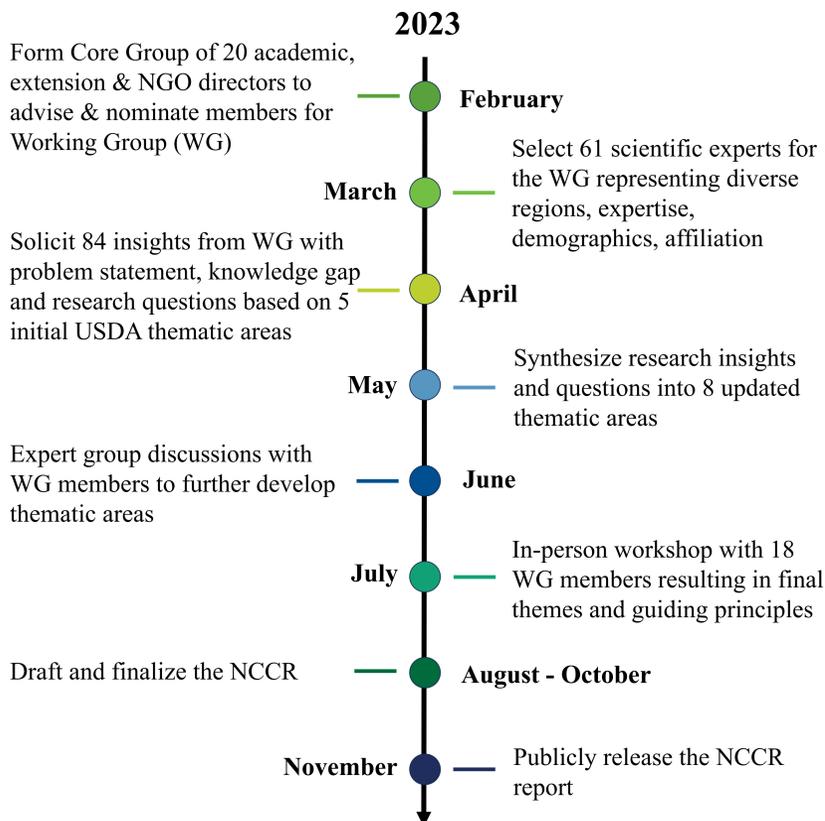
## Objective

Conduct a systematic horizon scan with diverse scientific experts to identify the critical knowledge gaps and research priority areas for addressing climate change threats to agriculture and working lands.

Synthesize expert insights to develop a scientifically robust National Climate Change Roadmap (NCCR).

The NCCR will inform the United States Department of Agriculture's (USDA) National Institute for Food and Agriculture (NIFA) funding priorities for the next 10 years.

## Methodology & Timeline



The National Climate Change Roadmap outlines a compelling path for how USDA-NIFA funding can support science that transcends traditional boundaries to effectively and equitably mitigate the impacts of climate change while fostering productive working lands for all.



**Figure 1.** Schematic representing the broad outcomes of the horizon scan: Building resilience to climate change (outer green circle) demands integrated multi-scalar research (light blue circle) addressing the cross-cutting themes (colorful petals) using approaches defined by the guiding principles (dark blue circle).

The horizon scan process highlighted the need for research funded by the USDA-NIFA to be multi-scalar, interdisciplinary and guided by cross-cutting themes and guiding principles.

7 Cross-cutting themes represent the integrated science needs forming the backbone of the NCCR.

9 Guiding Principles emphasize the essential considerations for how research is conducted and discussed within funding proposals.

- Equity and justice
- Strategic communications
- Co-production with end-users
- Traditional ecological knowledge
- Contextual considerations
- Risk and vulnerability
- Systems-thinking
- Policy relevance
- User-centered

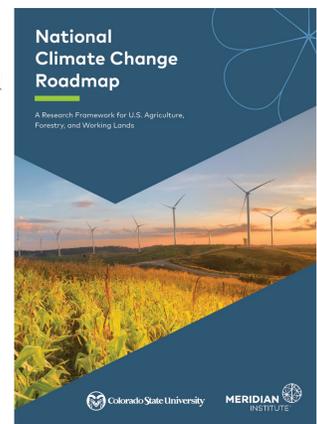


**Figure 2.** Workshop insights informed the guiding principles.

## Next Steps

USDA-NIFA will use the NCCR to inform funding, programs and research focus areas for the next decade.

Read the National Climate Change Roadmap:



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