

# Communicating and Engaging with Wyoming Communities about the Climate-Water Transition

IREOD Project Ideas

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**01**

**GOALS**

Review of background research that guides our ideas.

**AGENDA**

**02**

**IREOD IDEAS**

Brief overview of ideas that have potential for overlap with this group. Brief note about scholarly contributions of each idea.

**03**

**BUDGET**

Rough budget estimates for the IREOD ideas.

# 01



## **GOAL 1**

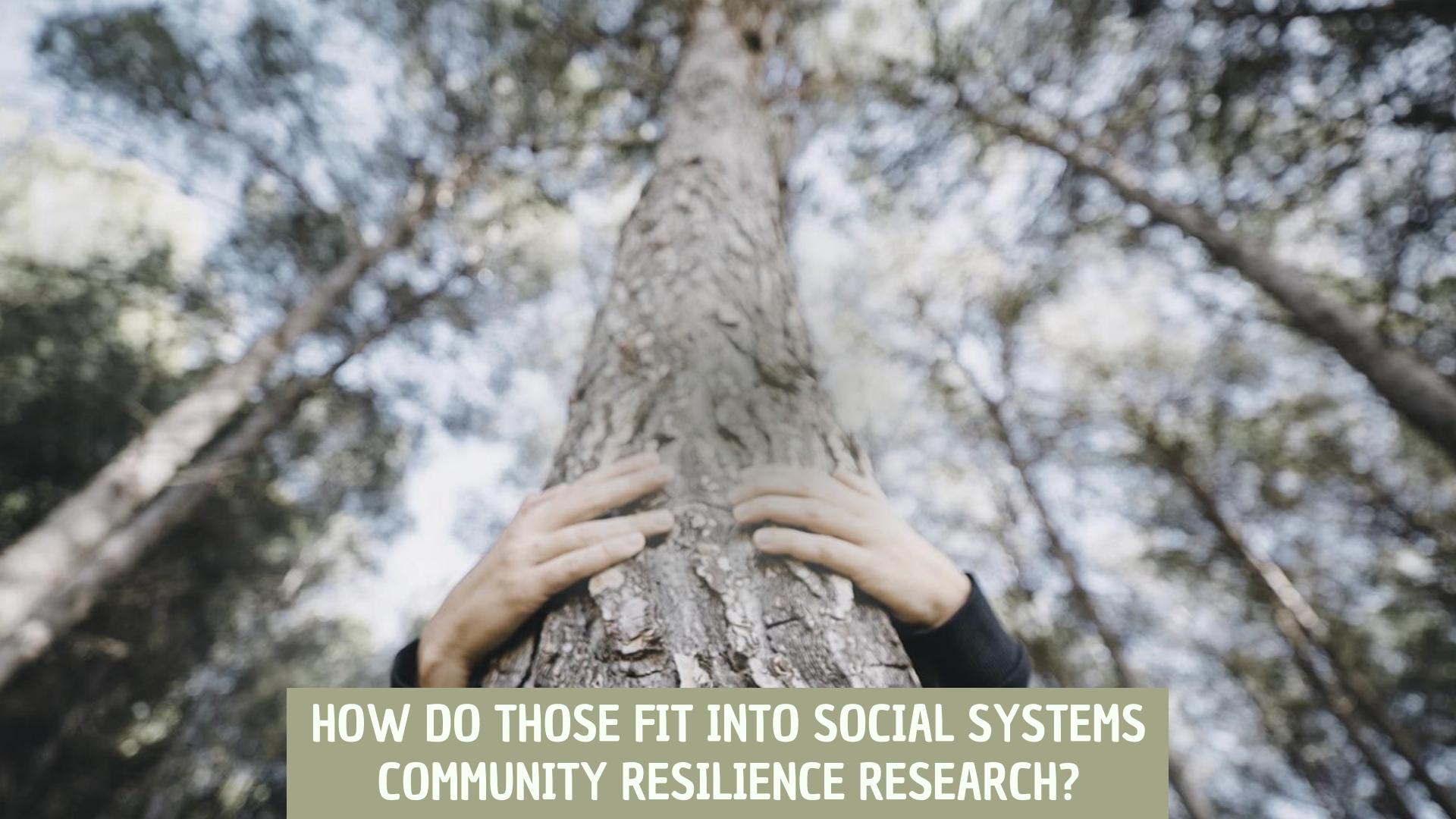
To effectively communicate with Wyoming people in ways that overcome political and psychological biases.



## **GOAL 2**

To encourage Wyoming people to communicate about the climate-water transition with people in their social networks and everyday lives.





**HOW DO THOSE FIT INTO SOCIAL SYSTEMS  
COMMUNITY RESILIENCE RESEARCH?**

Communicating effectively with rural populations can facilitate public acceptance of regulations and stimulate grass-roots efforts to proactively mitigate climate change impacts (Ockwell et al., 2009), so communicators must be careful about how messages are framed and presented to the public and should target efforts around the specific needs of this population (Hine et al., 2014).

**WE NEED TO ENCOURAGE SLOW,  
CURIOUS THINKING**



Risk perception is influenced by:

- ✓ Endpoint bias (peak and end rule)
- ✓ Affect heuristic
- ✓ Personal experience
- ✓ Selective exposure
- ✓ Selective perception
- ✓ High psychological distance
- ✓ Framing of the issue
- ✓ Social and political identities



## OVERCOMING PSYCHOLOGICAL BIASES



## DEBIASING

Experiments have shown biases can be partially mitigated by encouraging people explicitly to consider the positions opposite to their own or are given the materials showing another perspective.

RQ: To what extent do coproduction of knowledge activities debias individuals?





# COMMUNITY RESILIENCE

RQ: Can we increase adaptive capacity and trust of rural communities through coproduction activities?

Our focus is on narratives.

# The Power of Narratives

Narratives can:

- ✓ Encourage the adoption of message-consistent attitudes
- ✓ Reduce counterarguing
- ✓ Reduce negative emotional arousal from dissonant (counter-attitudinal) scientific information





# TWO STRATEGIC COMMUNICATION APPROACHES



## MEDIA

Personal narratives about climate change communicated via media that reduce psychological distance, evoke emotion, and encourage identification with the narrative's characters can shift the beliefs and risk perceptions of political moderates and conservatives.



## INTERPERSONAL

Exposure to new scientific information and dissonant messages about climate and environmental issues may be well-received via interpersonal conversations that occur over time with trusted people in a social network.

What are effective processes to coproduce narratives about climate-water issues?

To what extent can coproduced narratives communicated via (a) media and (b) interpersonal networks impact trust and adaptive capacity of rural Wyoming communities?

## **INTEGRATED RESEARCH QUESTIONS**





# 02

## IREOD IDEAS

A review of specific projects.





## MESSAGING RESEARCH

Establish audience-inspired messages with Surveys →  
Message development →  
Message experiments



## INFLUENCER RESEARCH

Identify key nodes in social networks that influence others about climate-water issues



## HYDROSOCIAL NARRATIVES

Develop and share coproduced narratives about Wyoming people and climate-water issues

# COMMUNICATION RESEARCH INITIATIVES



## AMBASSADORS

Train Wyoming people to have more effective interpersonal conversations about climate change



## TRAIN OUR SCIENTISTS

Many scientists still believe in the deficit model and need training in how to connect with people



## CLIMATE COHORT

Listen to journalists about what they need to be stronger science/ENR reporters. Provide training and garner coverage

# SCIENCE/ENR JOURNALISM INITIATIVES



## INTERNSHIP PROGRAM

Interns who report primarily on science/ENR issues are placed at Wyoming media outlets; education provided by COJO courses



## JOURNALIST TRAINING

Keynote speakers with expertise in science/ENR journalism provide workshops for Wyoming journalists at Wyoming Press Association



## BEST IN SCIENCE REPORTING AWARD

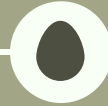
A panel reviews submissions and awards the top science reporter at WPA

# TIMELINE



## YEAR 1

- ✓ Messaging Research
- ✓ Influencer Research
- ✓ Virtual Sci. Comm. Training
- ✓ Listening Sessions for Journalist Climate-Cohort
- ✓ Best in Science/ENR Reporting Award



## YEAR 2

- ✓ Development of Hydrosocial Narratives
- ✓ Development of Climate-Water Ambassador Program
- ✓ In-Person Sci. Comm. Training
- ✓ Climate-Cohort and WPA Trainings
- ✓ Science/ENR Interns
- ✓ Best in Science/ENR Reporting Award



## YEAR 3

- ✓ Dissemination of Hydrosocial Narratives via Media
- ✓ Execution of Climate-Water Ambassador Program
- ✓ Virtual Sci. Comm. Training
- ✓ Climate-Cohort and WPA Trainings
- ✓ Science/ENR Interns
- ✓ Best in Science/ENR Reporting Award









## YEARS 4-5




- ✓ Dissemination of Hydrosocial Narratives via Media
- ✓ Execution of Climate-Water Ambassador Program
- ✓ Climate-Cohort and WPA Trainings
- ✓ Science/ENR Interns
- ✓ Best in Science/ENR Reporting Award






# SIGNIFICANCE, SCHOLARSHIP, AND BUDGET

|   | Significance   | Scholarship  | Budget  |
|---|--|--|---|
|  <p>Messaging Research</p>     | <p>Provides an understanding of Wyoming communities to guide further initiatives using surveys (open- and closed-ended questions) and messaging experiments.</p>                               | <p>Research is needed in climate-water communication in rural, non-coastal communities like Wyoming, which are not often the target of climate change communication research.</p>  | <p>\$50,000 for series of WYSAC surveys of Wyoming residents<br/>           \$10,000 for climate-water message testing<br/>           Total \$60,000 (years 1-2)</p>  |
|  <p>Influencer Research</p>    | <p>If long-lasting and transformational change will occur in the climate-water transition, then we need to understand the stakeholders' social networks and their potential for influence.</p> | <p>Research is needed to understand how people are talking about climate-water issues in their social networks and in their everyday lives. This knowledge is crucial for successful communication efforts that involved peer-to-peer influence.</p>   | <p>Covered in Messaging Research Budget</p>   |
|  <p>Hydrosocial Narratives</p> | <p>Provides stories from Wyoming people for Wyoming people, using a coproduction of knowledge approach.</p>  | <p>Request is grounded in communication research that reveals the power of narratives to encourage the adoption of narrative-consistent attitudes. Research in how to reduce psychological distance to the climate-water transition and overcome other psychological barriers is needed.</p> | <p>\$10,000 for media production equipment<br/>           \$2,000 for travel to produce stories around Wyoming<br/>           \$8,000 for undergraduate hiring for media production assistance<br/>           \$10,000 for story placement in media (e.g., social media, agriculture magazines, radio)<br/>           Total: \$30,000 (years 2-5)</p> |

|  | Significance  | Scholarship   | Budget  |
|--|---|---|---|
|  <p>Climate Ambassador Program</p>    | <p>Exposure to new scientific information and dissonant messages about climate and environmental issues may be well-received via interpersonal conversations that occur over time with trusted people in a social network. This program (offered via WyoLearn and in-person workshops) trains individuals how to have delicate and strategic conversations with others about the climate-water transition in Wyoming.</p> | <p>Request is grounded in interdisciplinary research in interpersonal communication, political psychology, and counseling. Research is needed in how these approaches operate in interpersonal communication about delicate science issues and how interpersonal influence operates in social networks.</p>           | <p>\$8,000 for participation incentives<br/>           \$2,000 for travel to in-person workshops in Wyoming<br/>           \$10,000 for in-person workshop facilitators and content producers<br/>           Total: \$20,000 (years 2-5)</p>                  |
|  <p>Train our Scientists</p>          | <p>Workshops and training on science communication tailored for WY-ACT scientists will build confidence and skills.</p>   | <p>Because WY-ACT researchers may be involved with the project between 2 and 5 years, this gives social scientists the change to use pre/post evaluation to examine both short-term and long-term impacts of science communication training on WY-ACT researchers. Long-term research on such training is needed.</p> | <p>\$6,000 for each virtual workshop (years 1 and 3)<br/>           \$25,000 for each 2-day workshop (years 2 and 4)<br/>           Total: \$37,000</p>   |
|  <p>Climate Cohort of Journalists</p> | <p>In a coproduction of knowledge process, we will listen to what journalists need to succeed in the climate/ENR beat in Wyoming. After listening sessions, we will provide professional development to Wyoming journalists who may cover energy, environment, and water issues, such as attendance to climate/ENR conferences, a mentoring program, or a WyoLearn module on climate/ENR journalism.</p>                  | <p>Research about professional development and reporting strategies in climate/ENR journalism is needed.</p>  | <p>\$2,000 for listening sessions with Wyoming journalists, including participant incentives and travel (year 1)<br/>           \$18,000 for climate cohort activities; specifics TBD after listening sessions (years 2-5)<br/>           Total: \$20,000</p> |

|  | Significance  | Scholarship  | Budget   |
|--|---|--|--|
|  <p>Best of Science/ENR Reporting Award</p> | <p>Awards incentivize higher quality science/ENR journalism among Wyoming Press Association newspapers</p>  |  | <p>\$500/year<br/>Total: \$2,500</p>   |
|  <p>Internship Program</p>                  | <p>Interns will report on climate/ENR issues facing the individual communities where the intern is placed, using nontraditional (coproduction of knowledge) reporting strategies. We will use the strategic communication research outlined above to train interns about the communities and best approaches to communicating climate-water issues. Statewide impact is possible because interns will be required to write stories on the WY-ACT research that will reach the public.</p> | <p>The interns and internship experience will be evaluated using teaching and learning research, with the goal to publish scholarship on best practices about science/ENR journalism internships in a communication education journal.</p> | <p>\$20,000/year for three summer interns (\$13.80 per hour, 40 hours per week, for 12 weeks. Three interns requested)<br/>Total: \$80,000 (years 2-5)</p> |
|  <p>Journalist Training</p>                 | <p>This statewide professional development opportunity in climate/ENR journalism shows Wyoming journalists that these issues are critical for the state and encourages stronger and more frequent reporting on these issues</p>   |  | <p>\$3,000/year<br/>Total: \$15,000 (years 1-5)</p>  |

|   | Significance  | Scholarship   | Budget  |
|---|---|---|---|
|  <p>Summer Salary for IREOD Partners</p> | <p>Landreville will co-lead all proposed initiatives with Cooper throughout the years.</p>  | <p>Many of the proposed initiatives have the potential for publication in interdisciplinary journals, such as Environmental Communication, Public Understanding of Science, Science Communication, Communication Education, Journalism Studies, and more.</p> | <p>Base salary: \$72,655.00/9 months<br/>           \$8,072/month x 2 months summer salary = \$16,145/year<br/>           \$16,145 + 41.9% fringe = \$22,909/year<br/>           Total: \$114,548 (years 1-5)</p> |
|  <p>Summer Salary for IREOD Partners</p> | <p>Cooper will co-lead all proposed initiatives with Landreville throughout the years.</p>  | <p>Many of the proposed initiatives have the potential for publication in interdisciplinary journals, such as Environmental Communication, Public Understanding of Science, Science Communication, Communication Education, Journalism Studies, and more.</p> | <p>Base salary: \$66,370.00/9 months<br/>           \$7,374/month x 2 months summer salary = \$14,748/year<br/>           \$14,748 + 41.9% fringe = \$20,928<br/>           Total: \$104,643 (years 1-5)</p>      |
|  <p>Graduate Assistant</p>               | <p>A GA with prior experience in strategic communication, media production, interpersonal influence, or science/ENR communication will coordinate these strategic communication WY-ACT initiatives with Landreville and Cooper and will supervise undergraduate workers on the project.</p> | <p>A GA would be involved in the communication research and would likely write a thesis associated with the initiatives, which would lead to a journal publication.</p>   | <p>\$38,447/year for a GA (stipend of -\$13,000/year; tuition/fees of -\$7,000/year; 41.9% fringe -\$18,447)<br/>           Total: \$153,788 (years 2-5)</p>  |



# Messaging Research

Funding for strategic messaging research that will identify effective communication approaches to address the climate-water transition in Wyoming.

We take a coproduction of knowledge approach by seeking community input via surveys and experiments.

Specifically, surveys (using open-ended and closed-ended questions) in the communities where the research is occurring will collect vital information on social identities, networks, and values; risk perceptions; information sources related to climate-water issues; perceptions of community descriptive and injunctive climate-water behaviors; and more.

We will work with core researchers and stakeholders to identify any behavioral and attitudinal goals relative to the climate-water transition and include survey questions related to those goals.

Subsequent survey results provide guidance for the creation of targeted messages (e.g., differently framed messages) to different Wyoming communities. We will experimentally test the effectiveness of these messages prior to any widespread message dissemination.

We envision this project element in the spirit of the messaging research that the [Yale Program on Climate Change Communication](#) conducts, but specific to Wyoming.

# Influencer Research

Funding for research to identify opinion leaders, stakeholders, and organizations that are key nodes in the Wyoming climate-water social network.

This research asks the targeted communities:

Who do you turn to for information about climate and hydrosocial issues?

Surveys where the research is occurring can be used to identify opinion leaders, who can then be contacted for engagement.

Community listening sessions (or the scenario building meetings) could be used to gather information about opinion leaders and social networks as well.

Moreover, using formal social network analysis of Wyoming social media users will identify additional opinion leaders, nodes, and relationships to consider engagement with.

If we can identify the opinion leaders, then we can better engage them and their social network in a coproduction of knowledge process when strategic messages are developed.

# Hydrosocial Narratives

Funding for strategic messages that feature climate and hydrosocial personal narratives from Wyoming people.

With guidance from the strategic messaging research and social network analysis, we will work with the core team and stakeholders to develop message goals and produce messages designed for social media dissemination (e.g., short videos, short audio stories, and information graphics) and traditional media dissemination (e.g., local newspapers, Wyoming Public Radio, and Wyoming agricultural publications).

We can collaborate with UW Extension on these media production efforts, such as leveraging their YouTube subscribers (more than 2,500), if and where appropriate.

This funding ensures that an information “campaign” about hydrosocial and climate issues can occur, and it is driven by Wyoming people’s own narratives.

# Ambassador Program

Funding for a climate-water ambassador program to train individuals how to have more effective interpersonal climate conversations with Wyoming people.

Most people have not learned how to have interpersonal conversations with others about delicate issues, such as climate change.

This program will consist of a public-facing WyoLearn module that Wyoming people engage with asynchronously to build skills in interpersonal communication (both offline and online) of climate-water issues in Wyoming.

Knowledge that was coproduced and derived from earlier steps will be key to understanding how to communicate hydrosocial and climate issues specific to Wyoming. The module would contain evidence-based communication tips, interactive sources (e.g., En-Roads, Fakey), and climate-water science specific to Wyoming. Opinion leaders, stakeholders, climate and ENR organizations in Wyoming, K-12 science teachers, WY-ACT and UW researchers, and other invested Wyoming people in climate-hydrosocial issues will be incentivized to engage with this WyoLearn module.

In-person climate-water ambassador workshops around the state will be organized as well to provide opportunities for more immersive and interpersonal training. Last, success of this ambassador program will depend on ambassadors sharing what they have learned to others, so mechanisms will be created for sustained, long-term interactions of ambassadors, such as a Facebook support group.

# Train Our Scientists

Funding to train WY-ACT and UW researchers to be more effective climate-water communicators with Wyoming people.

This training is directly aimed at WY-ACT and UW researchers, specifically. We want to offer science communication training to researchers who seek to communicate about delicate scientific issues with the public.

For example, a COMPASS workshop or Alda Science Communication Experience workshop can be tailored to researchers seeking to communicate Wyoming's climate-water transition.

Multi-day in-person workshops as well as virtual workshops are available.



# Climate Cohort for Journalists

Funding for a Wyoming journalist “climate cohort”.

Wyoming journalists are expected to cover all types of beats (story topics), and only the larger newspapers such as the Jackson Hole News&Guide and the Casper Star-Tribune have dedicated energy and environment reporters.

In a coproduction of knowledge process, we will listen to what journalists need to succeed in the climate/ENR beat in Wyoming.

After listening sessions, we will provide professional development to Wyoming journalists who cover climate/ENR issues, such as attendance to climate/ENR conferences from organizations like the Society of Environmental Journalists, a mentoring program that pairs experienced climate/ENR reporters with early career and intern journalists, or a WyoLearn module on climate/ENR journalism.

Additionally, we can use this cohort as an audience to share climate-water WY-ACT research with to garner news coverage.

# Best in Science/ENR Reporting Award

Funding for the Wyoming EPSCoR Best in Science Reporting Award.

This award incentivizes Wyoming journalists to produce stronger science reporting.

Journalists are provided the award criteria, which includes writing quality, relevancy, command of science content, and consistency, and they submit their best stories for the award.

This is a featured award at the Wyoming Press Association Annual Convention, which increases visibility for Wyoming EPSCoR research.

# Science/ENR Journalism Internship Program

Funding for three climate/environmental journalism internships at Wyoming's media outlets.

Interns will report on climate/ENR issues facing the individual communities where the intern is placed, using nontraditional (coproduction of knowledge) reporting strategies.

Training is provided with the Media, Science, and Society class that is taught in the Department of Communication and Journalism. We will use the strategic communication research outlined above to train interns about the communities and best approaches to communicating climate-water issues.

A specific Native American science journalism internship with Wyoming Public Radio would be offered, which would focus on the Wind River Indian Reservation and Native American climate/ENR issues.

This advances geographical and individual diversity of the project, as well as promotes workforce development.

# Journalist Training

Funding for one yearly Wyoming Press Association Annual Convention session on climate and environmental journalism.

This the largest gathering of professional Wyoming journalists and editors.

We will invite one climate/environment journalism organization, such as the Institute for Journalism and Natural Resources, to do a professional development workshop for Wyoming journalists and editors.