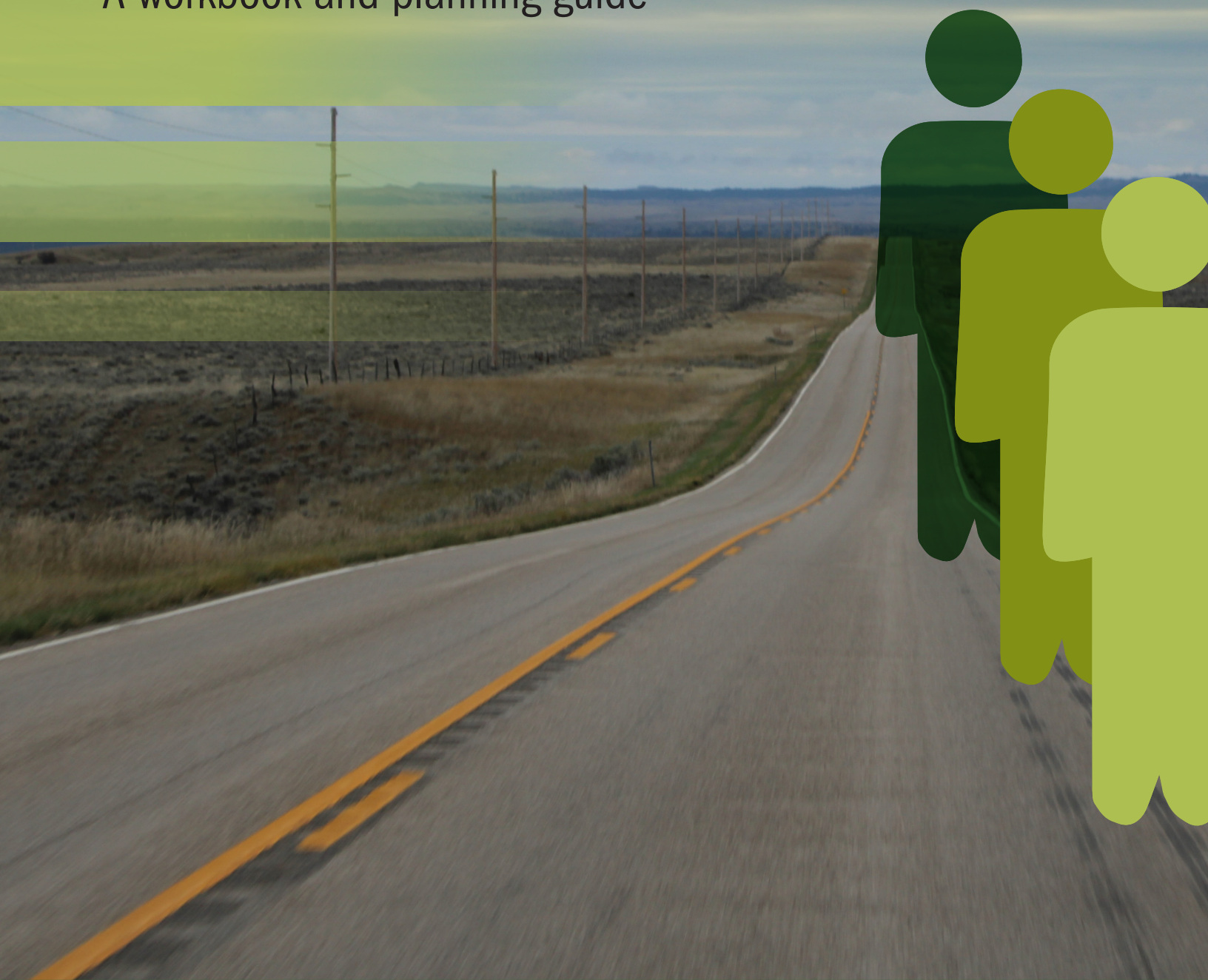
ENGAGING IN ENERGY COMMUNITIES: The role of the researcher

A workbook and planning guide



Resources & Communities Research Group

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Montana State University

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Sam Houston State University

Colorado School of Mines

ABOUT THE "RESEARCH FATIGUE IN RURAL COMMUNITIES" RESEARCH PROJECT

Research Fatigue in Rural Communities is a collaborative project originating at Montana State University and with partners across the United States. Funded by the USDA, the work focuses on the issue of research fatigue on the part of human subject participants in research on social impacts of energy development. It involves a major literature review, focus groups and surveys with researchers, and informal interviews with key informants in energy communities. This effort was funded by a grant from USDA NIFA (Project #2018-68006-27648). We gratefully acknowledge the support of the USDA, our universities, and student reviewers. We are especially appreciative of the community members who have participated in our research projects and been our teachers and guides.

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WHY CONSIDER RESEARCH FATIGUE?

The pace and scale of the expansion of energy development in the United States over the past two decades have made the community impacts of new energy technologies a national concern. As a result, many communities impacted by dramatic expansion in energy extraction have experienced not one but two "booms"—one, a boom in energy extraction and all the changes it brings quickly to a community; the other a boom in attention from researchers, the media, and others outside the community. This surge in attention can unintentionally generate a significant new set of challenges for already overburdened populations, thus amplifying the impacts of the energy boom while potentially diminishing credibility of research and decreasing access to reliable data.

As part of a larger effort to improve the quality and impact of participant-based energy impacts research, this workbook will help early-career researchers consider the risks of **research fatigue** and plan approaches to working with communities in order to minimize those risks.

Thoughtful use of this workbook — particularly as a complement to the online educational module "Understanding and Addressing Research Fatigue in Rural Communities" (learn more at http://energyimpacts.org) —will help researchers understand, plan for, and mitigate research fatigue in communities undergoing transitions associated with the life cycle of energy development projects. Use of this workbook will also help you think through and explain your methodological choices and your approach to community engagement in the locations you study.

We believe the information, strategies and self-reflection will be valuable to those working in *any* type of population that is vulnerable to research fatigue.

Sections of this workbook will help you:

- plan research projects and methodology so as to minimize research fatigue on participants
- understand potential risks to participants and prepare for mid-project course correction
- consider how to best collaborate with community engagement professionals and citizens from the area being studied
- evaluate various methods for sharing your work back with the community being studied
- incorporate the values and principles of community engagement into your future work.

This workbook is intended as a guide to reflection and a source of ideas for planning a research strategy. It can be used with hypothetical or real study areas at any time in planning or executing a research design. Students are encouraged to bring questions this workbook poses to their advisors, peers and even community partners.

Please note that this workbook does not replace Institutional Review Board (IRB) training, but provides an intermediate step in applying principles and ideas that come out of the IRB process to designing research that can be mutually beneficial to participants and the researcher.

We welcome your feedback! Please contact Dr. Julia Haggerty at julia.haggerty@montana.edu.

HOW TO USE THIS WORKBOOK

We recommend using this workbook as a planning tool prior to investigating a community of study or conducting a research project.

Overview of the Research – These sections—which include a synopsis of the literature review, current thoughts on exemplary practices, and a section on reciprocity—will ground you in the findings from the research team and prepare you to create your own plan.

Section 1 – Planning Your Approach will be particularly relevant as you familiarize yourself with a community and its prior links to researchers. Two sets of worksheets are included in case you will be working in more than one community.

Section 2 – Staying on Course can also be tackled prior to beginning your research; however, some aspects of this section may be difficult to answer until you have visited or more thoroughly researched the community.

Section 3 – Sharing Back helps you plan for the dissemination of research results. Again, some items could be completed at early stages, but a better picture will emerge once you've established relationships with community members.

Section 4 – My Role as a Researcher is designed as a dynamic point for reflection throughout the project. We strongly encourage you to enter information here before beginning your project and reflect on whether and how any of your strategies and thoughts change throughout your project's duration.

Overview of the Research

Literature Review Synopsis

A Summary of a Systematic Review of Social Science Research in Energy-Impacted Communities

A recent study[1] systematically reviewed the literature on social science research on unconventional oil and gas (UOG) development in the United States published between 2000 and April 2018. Review of 167 unique human subjects' data collection efforts in the U.S. revealed that the recent boom in impacts research may have contributed to research fatigue on the part of some study participants. The study demonstrates challenges in deriving generalizable observations from local impacts research. Both problems are associated with the uneven geographic distribution of research across UOG locations in the U.S., researchers' tendency to arrive at the height of development activity, inconsistent and incomplete reporting on methods in publications, and an over-reliance on accessible research subjects.

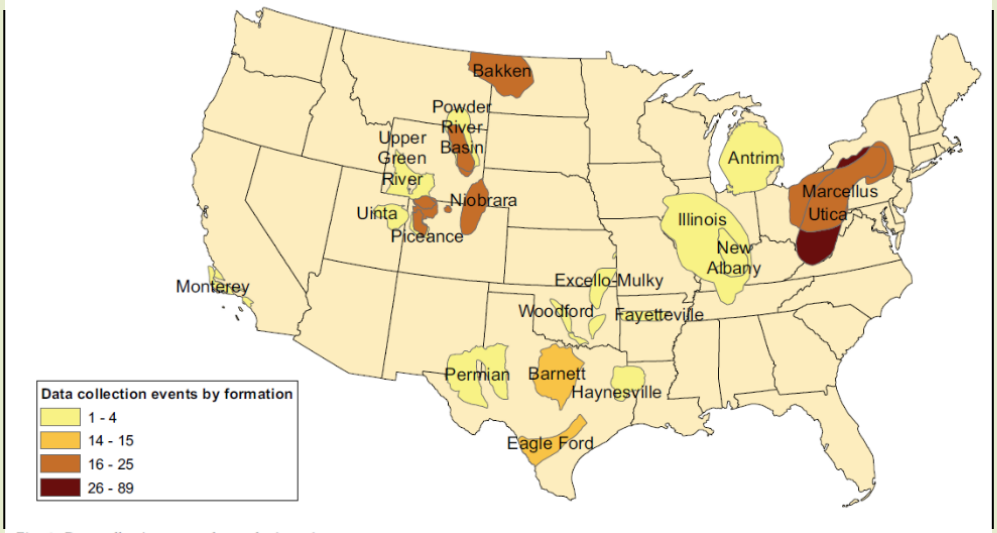


Fig. 1. Data collection events by geologic region
Note: Totals do not add to 100 due to some studies covering multiple areas.
Sources: Authors, USGS and U.S. EIA. Map by Jackson Rose.

Table 3
Number of survey efforts, responses, and average response rates by geography.

Formation(s) under study	State(s)	Number of data collection efforts	Number of surveys returned	Average response rate (efforts included*)
Marcellus	PA, NY, WV	26	12,604	39% (n = 19)
Bakken	ND, MT	7	2430	41% (n = 7)
3+ formations	Various	5	2384	39% (n = 5)
Niobrara	CO	5	1216	32% (n = 5)
Barnett	TX	2	746	37% (n = 2)
Other*	Various	2	630	No data
Marcellus & Utica	PA, NY, WV, OH	4	531	34% (n = 3)
New Albany	IL, KY	1	403	36%
Eagle Ford	TX	4	320	23% (n = 3)
Utica	OH	1	94	10%
Monterey	CA	1	18	31%
Upper Green River	WY	1	No data	No data
TOTAL		59	21,376	32%

* Total may not include all surveys due to incomplete reporting in some studies on methods.

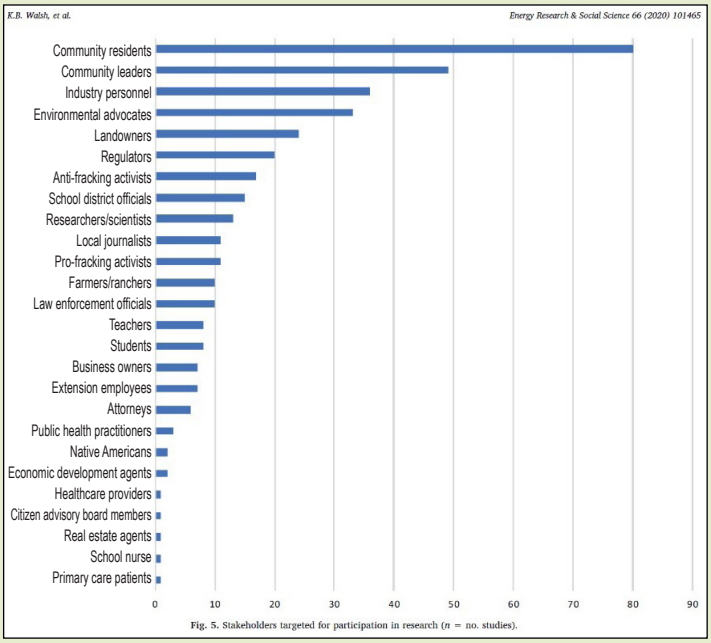


Fig. 5. Stakeholders targeted for participation in research (n = no. studies).

[1]Walsh, K.B., J.H. Haggerty, J.B. Jacquet, G.L. Theodori, and A. Kroespch. 2020. Uneven impacts and uncoordinated studies: A systematic review of research on unconventional oil and gas in the United States. Energy Research and Social Science. DOI: https://doi.org/10.1016/j.erss.2020.101465

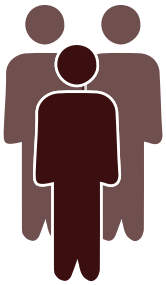
Current Thoughts on Exemplary Practices for Research in Energy-Impacted Communities

Communication Among Researchers	Modifying Research Approaches	Sharing Results with Communities	Ethical Considerations for Community Engagement
Researchers studying energy-impacted communities need to be better coordinated to avoid replicating research, over-sampling a particular geography or type of energy community, and to best contribute to filling gaps in the knowledge base.	Be prepared to modify your planned research approach(es) to co-create community-driven research (what types of data does the community need?) and connect your local research to a larger national or international context.	There are many ways to share back research findings. What's most important is that you communicate and share information with the community over the course of the project. For example, you may present regular project updates at community meetings, create highly visual customized reports, or publish project updates in local media outlets.	Research can be empowering or extractive for the host community—and sometimes both. Think ahead of time about how your research impacts the community and ways it can be empowering. Have clear rationale for your engagement strategy and stay committed to it over the course of the project.

Reciprocity: How can researchers give back?

Reciprocity can take creative forms. Asking community partners, "What resources are you short on? What could help you?" is a great place to start. Sharing resources is a basic way to think of reciprocity and research. For communities, it may be beneficial to set up systems to be prepared for all the media and research requests that will be coming their way. They can think ahead about reciprocity - what they might need and be able to ask for in return for their cooperation with the media outlets and researchers. Having some kind of plan in place in the community to deal with the influx of requests can preemptively take some of the pressure off.

There are many resources based at universities that are not just data, statistics, or the analysis that we create through research. For example, university researchers could be helpful intermediaries between communities and state government officials or national networks of information. University researchers can participate in community meeting facilitation or help with capacity-building in the communities hosting energy development. There are endless possibilities and it is most important to provide communities the opportunity to share what *they* would find most helpful and assist in any way you can.



"We need to make honest efforts at working with those most impacted."

*"By letting the community know your intentions to conduct research and providing contact information early on may help increase community engagement."**

Community familiarization strategies

[If your research spans several communities, we recommend completing a set of these pages for each place]

How heavily researched has this area been prior to this project?

Which researchers have already worked here, and what disciplines do they represent? How much research has been conducted by researchers from your or a closely related field? Is it feasible to reach out to some of those researchers to discuss your data collection and engagement plans?

How much and what type of media coverage has this area had? Is it feasible to reach out to key journalists to discuss your data collection and engagement plans?

Will you visit the location(s) prior to beginning your data collection?

If yes: How many times will you visit? Who will travel with you? What will you do?

If no: What challenges prevent you from visiting the community? How can you overcome these barriers?

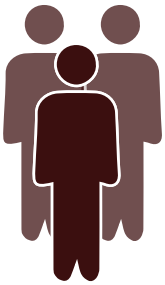
What other strategies will you use to familiarize yourself with the communities in your study area before collecting the data? (check all that apply and add in other strategies)

- ❑ examine location on a map
- ❑ review existing research on the community
- ❑ view local and national news coverage
- ❑ collect secondary data on demographics, etc.
- ❑ perform preliminary interviews with community members
- ❑ other _____

**Quotes used throughout this workbook are taken from a 2019 survey of social scientists studying communities impacted by oil and gas development.*

Community contacts planning worksheet

As you plan for the conversations that will inform your work, whom will you contact?
(The list of stakeholder groups below is merely a suggestion and does not reflect all possibilities).



People/groups I will contact	Is communicating with researchers or the media typically part of their job?	How experienced will they be in communicating with researchers or the media?	How high is their risk of research fatigue?
❑ Business owners			
❑ Community members (general citizenry)			
❑ Educators			
❑ Energy industry personnel			
❑ Environmental advocates			
❑ Extension & university liaisons			
❑ Farmers/ranchers			
Government ❑ City ❑ County ❑ Federal ❑ State ❑ Tribal *[For each sector, also consider the difference between contacting staff vs. elected officials.]*			
❑ Landowners			
❑ Leaseholders			
❑ Non-profit representatives			
❑ Religious/spiritual leaders			
Other			
Other			

"People are generally overwhelmed with too much input from the outside world, people wanting things from them, too many decisions, too little time, etc."

Use these additional pages if your research spans more than one community

Community familiarization strategies *(duplicate for an additional community)*

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Other			
Other			

The other perspective

As you look over the community contacts planning worksheet and compile your list of stakeholders, are there groups that are over-represented? Are there voices that are not at the table?

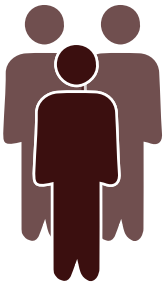
Pick a few key stakeholders from your checklist. Based on the literature *(see Overview of the Research)*, **how do you believe they will respond to this research project? How receptive will they be to talking to you?**

If you believe stakeholders have been heavily contacted by researchers and outsiders, how can you tailor your approach in order to mitigate against increased research fatigue?

Put yourself in the shoes of a key community member with whom you plan to interact. Again, based on the literature, what might they say if you were to write about the overall energy development issue from their perspective? How might they respond to researchers, the media, and others who come from outside the community?

Reciprocity and risk

What are some potential benefits of your research to the participants in your research and/or other groups in the community being studied? What are some potential positive outcomes from your findings? *(see reciprocity section in Overview of the Research)*



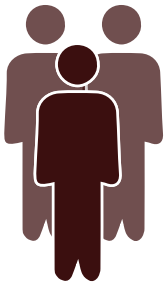
"[Participants] can learn more about the issue and have an outlet for sharing and expressing their views."

Potential risks for participants include (but are not limited to): participants' lack of time to participate; a sense of obligation to assist researchers with their own needs, such as housing; a lack of perceived benefit to a community member's personal circumstances or those of the wider community; fear of affecting personal and professional relationships within the community; and overall stress. Do you anticipate any of these risk factors, and how might you watch for and mitigate them?

"Some felt like by participating, they are going against their community."

Sustainability

Not all projects lead to a long-term relationship with a community. However, if yours has this potential, what are your expectations and the community's expectations? If you are unable to maintain a long-term relationship with the community, who can assist you or what is your exit strategy?



"A good research strategy is to partner with community organizations who share an interest in the research outcome."

Disseminating results to your partners and participating communities

When thinking of your communities of study: Which people or groups might be interested in your research findings? Please be as specific as possible.

How do you anticipate sharing your research within the community?

❑ Giving a presentation at a community or organizational meeting

Which meetings? _____

_____

❑ Submitting an article to or being interviewed by the news media

Which news outlets? _____

_____

❑ Creating a written publication or report

How could it be disseminated? _____

_____

❑ Sharing results on websites

Which ones? Who will you contact for access? _____

_____

❑ Sharing results via email or social media

Which list-servs or channels? Who will you contact? _____

_____

❑ Presenting via a webinar

How and to whom will you publicize it? _____

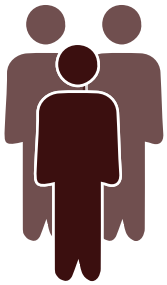
_____

❑ Other

What barriers might you encounter, and how will you overcome them?

Disseminating results within your profession

Thinking of your academic/professional community: Which individuals or groups might be interested in your research findings? Be as specific as possible.



"Sharing results is important, but the university system I'm in rewards publication, not outreach."

How do you anticipate sharing your research within the academic/professional community?

- ❑ A presentation/talk within my academic home department
- ❑ A presentation/talk to my university community
- ❑ A poster or presentation at a regional or national professional conference/meeting

  Which conferences/meetings? _____

  _____

- ❑ A peer-reviewed article (paper) in an academic journal

  Which journals? _____

  _____

- ❑ Communication such as a blog post, newsletter article, etc., shared with a professional network

  Which networks? _____

  _____

- ❑ Other

  _____

  _____

Our literature review revealed that including your community engagement methodology along with your research results is important; however, few researchers are doing this. How could you include your community engagement methodology when you publish your research results?

Elaborate on the extent to which there might be crossover between/among your strategies for disseminating the research results in the community and within your profession.

PERSONAL IMPACT PLAN

How might you benefit professionally from being part of this research project?

How might you benefit personally?

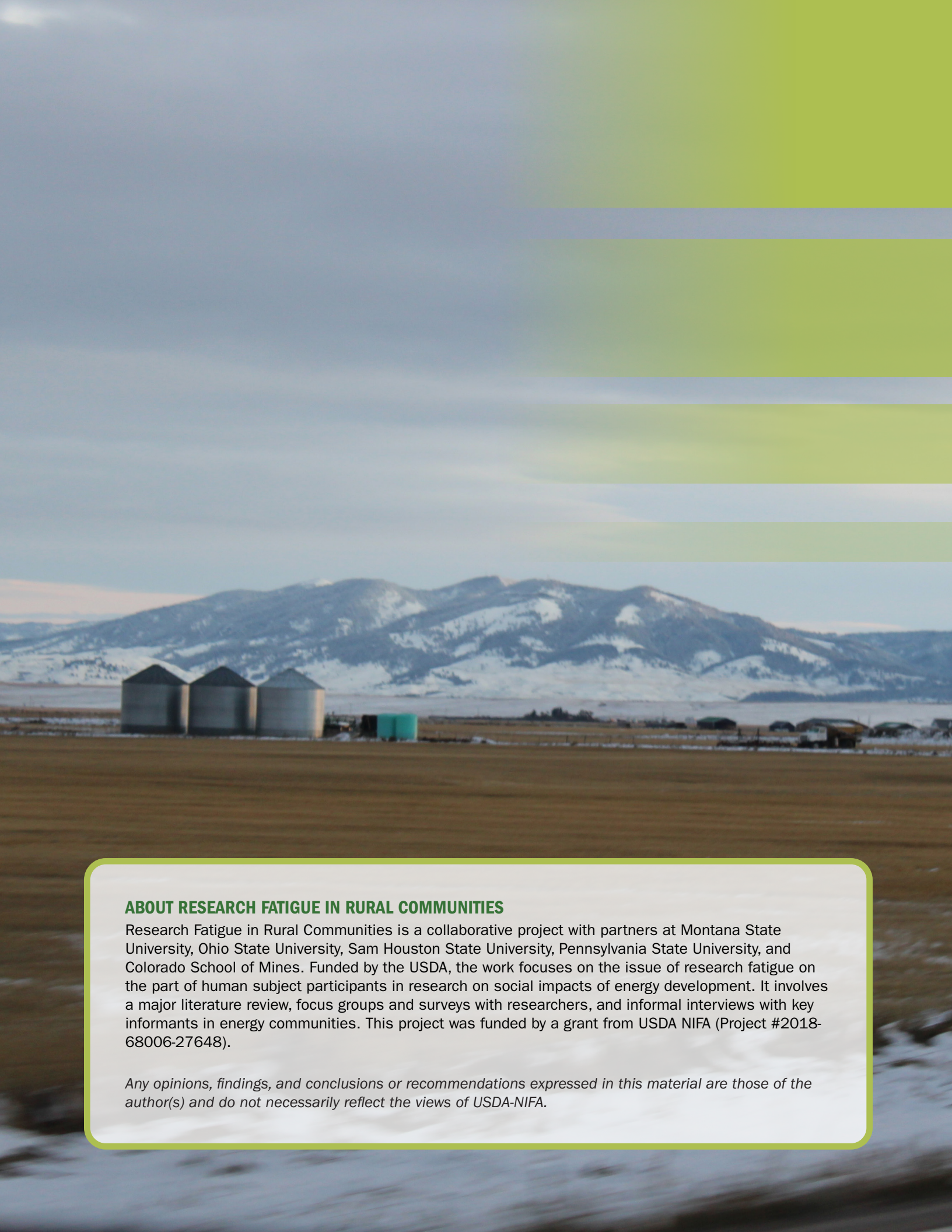
What are some risks or challenges you may encounter?

PERSONAL IMPACT PLAN

How can you best prepare yourself to meet these challenges? Who can help you?

When and how will you reflect on the project throughout its duration so that you can course correct if necessary?

Additional thoughts and ideas



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