



Briefing on the Launch of the *Third Assessment of Natural Hazards*



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Director, Natural Hazards Center and CONVERGE
Professor, Department of Sociology
University of Colorado Boulder



NSF Award #1635593 and #1841338



Natural Hazards Center



CONVERGE

Welcome and Gratitude



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2024

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Briefing on the Launch of the Third Assessment of Natural Hazards

Monday, July 15, 7:00 to 8:00 p.m. MDT

Location: Interlocken A

After the poster session, please join us for this special briefing on the launch of the *Third Assessment of Natural Hazards*.

The last national assessment of natural hazards and disaster research appeared in print in 1999. Since then, the threats that we face as a nation have multiplied, the number of people affected by natural hazards is at an all-time high, and the amount of research produced has grown dramatically. It is time to take stock of what is known in this field.

In this session, Natural Hazards Center Director Lori Peek will describe the purpose and scope of the upcoming Third Assessment. Participants will learn about the structure, the planned approach, and the audiences the assessment will serve. We will review the working outline and participants will hear more about how they can contribute.

This will be the first large-scale update of the state of hazards and disaster research in the United States since *Disasters by Design* and the [companion volumes](#) were produced as part of the Second Assessment. We hope you will join us to learn more and hear how you can be involved in this important effort.

Speaker



Lori Peek, Natural Hazards Center

[Back to Schedule](#)



Motivation for Attending

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His university's past and experiential research knowledge is required to ensure that responses are in harmony with nature.

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First and Last Name: _____

Email: _____

Affiliation: _____

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 - o Chapter Co-Author
 - o Contributor—provide scholarly references, data, case studies, or other inputs
 - o Reviewer—review and provide feedback on the detailed outline, chapter specific outlines, complete chapter drafts, or full assessment
 - o Funder, Supporter, Champion—provide financial, promotional, or other forms of support
 - o Something Else: _____
 - o Not Interested – Just Listening!
3. What recommendations, comments, concerns, or hopes do you have for the Third Assessment?
4. Any questions you want to ask?

**Please use the back of your sheet if needed!*

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Please keep the form open for the duration of the session!



Briefing Objectives

- Provide **history** and **context** for assessments led by this community
- Describe the **purpose, motivation, and scope** of the *Third Assessment*
- Explain the **structure, planned approach, and audiences** the assessment will serve
- Review the **working outline and outcomes**
- Discuss ways to **get involved**



What is an Assessment?

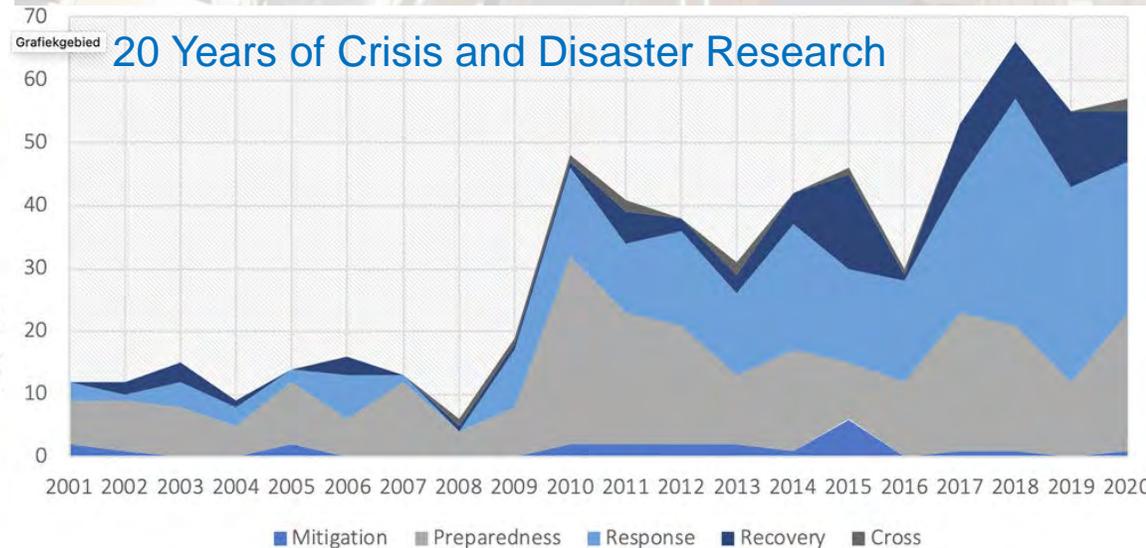
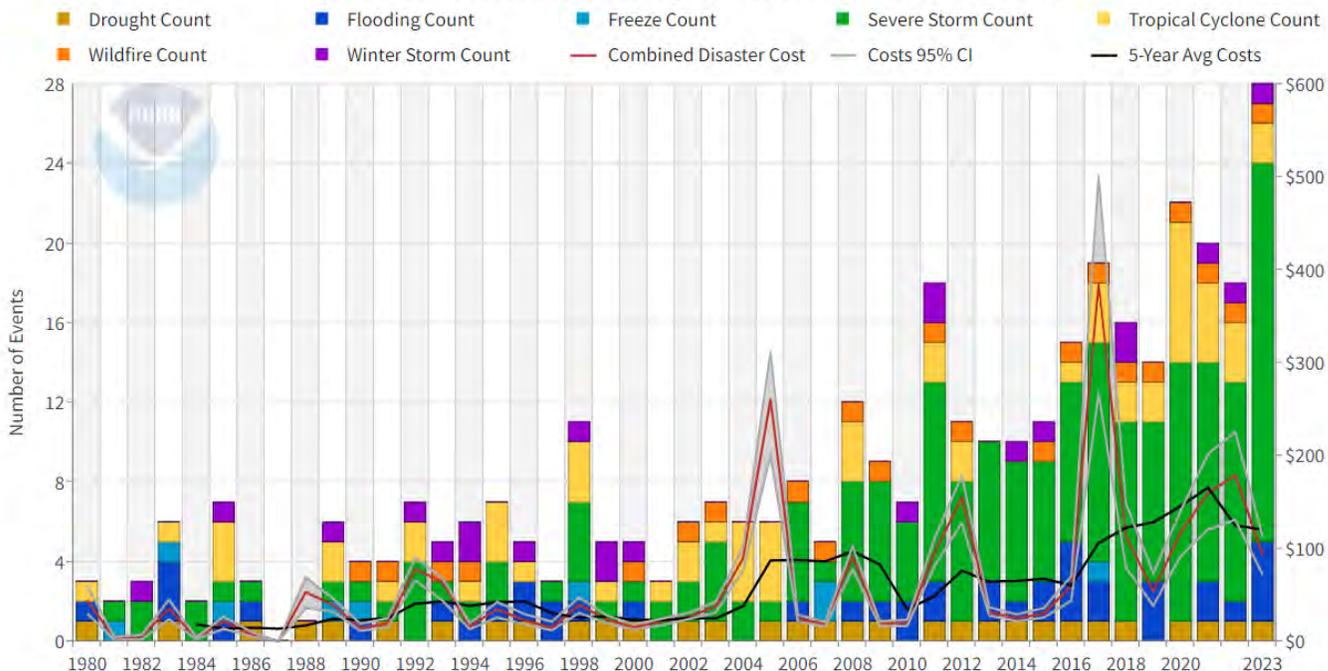
- Summary, review, analysis, report
- Evaluation or judgment on the value, quality, or impact of something
- Taking stock and synthesizing **past and present state of knowledge** in the field of hazards and disaster research
- Setting a **research and applications agenda** to drive the future of the field



Start with the *Why*

1. The last national assessment appeared in print in **1999**. In the time since, the **threats** we face have become increasingly complex, the **number of people, places, and assets affected** by natural hazards and compound / complex / cascading disasters is at an all time high, and the **amount of research** produced has grown dramatically.

United States Billion-Dollar Disaster Events 1980-2023 (CPI-Adjusted)



Source: Wolbers, Kulpers, & Boin, 2021

Third Assessment

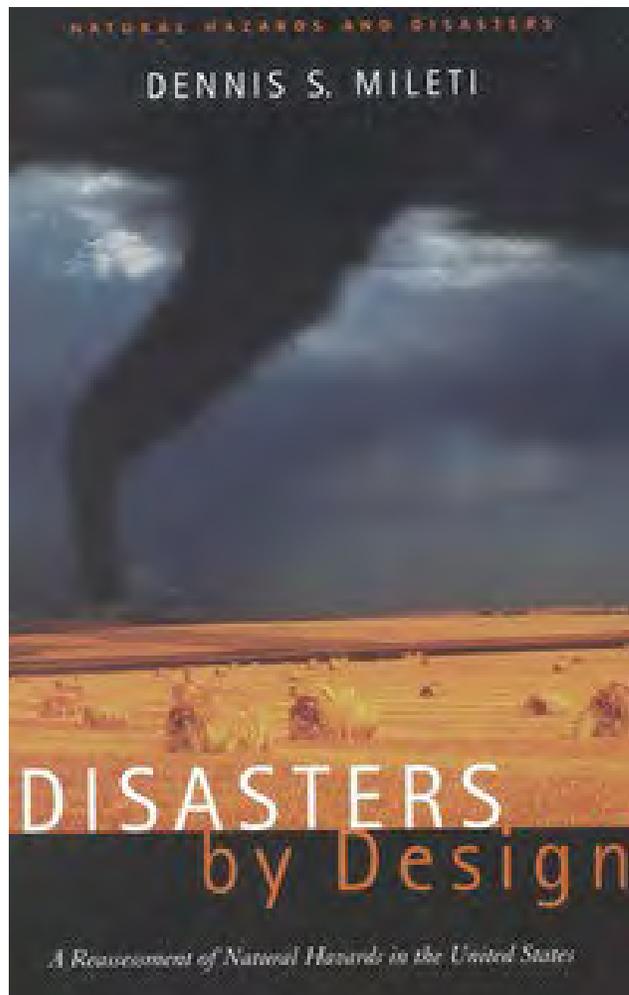
Start with the *Why*

1. The last national assessment appeared in print in **1999**. In the time since, the **threats** we face have become increasingly complex, the **number of people, places, and assets affected** by natural hazards and compound / complex / cascading disasters is at an all time high, and the **amount of research** produced has grown dramatically. **It is time to take stock of what is known in the field.**
2. Understanding the body of available research can improve the possibility for its **practical application**. **By assessing what we have learned, we have an opportunity to apply it to improve the safety, health, vitality, and resilience of the nation.** Further, by applying an **(in)equity lens** throughout, this assessment will advance a framework for centering such concerns *across disciplines and dimensions* of hazards and disaster research.
3. The assessment will set a **forward-looking research and applications agenda** to inform the next generation of hazards and disaster research and evidence-based practice and policy.
4. The **approach** to producing this assessment will ensure that it is **inclusive, transparent, and replicable**. (*We do not want to wait another 25+ years for the next assessment!*) Diverse members of the field will have various opportunities to participate, which will strengthen the final products and their reach.

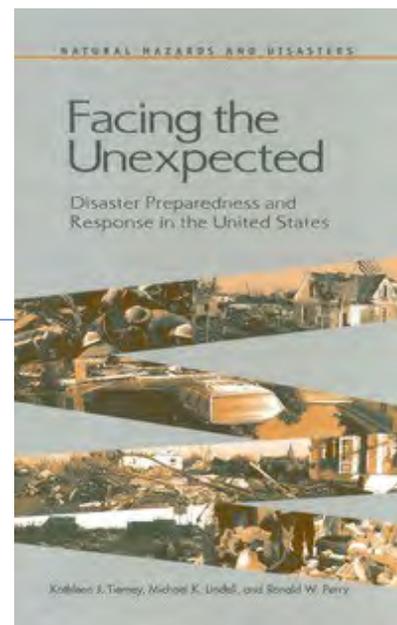
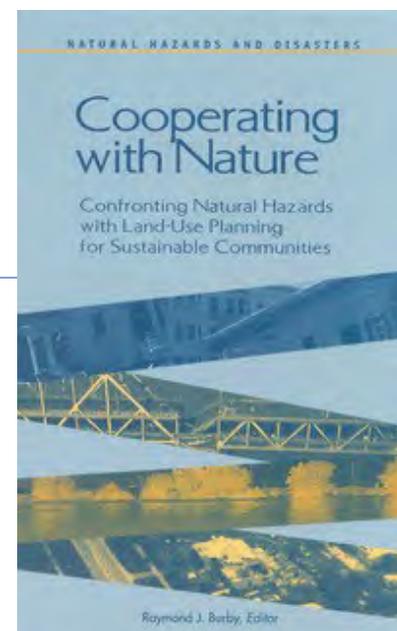
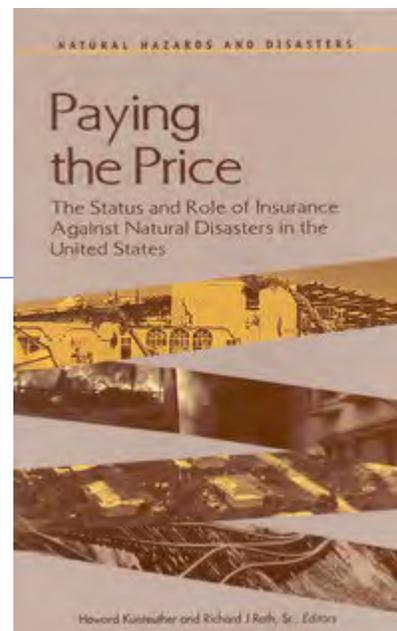




First Assessment, 1975



Second Assessment, 1999



Additional Volumes from the Second Assessment, 1998-2001



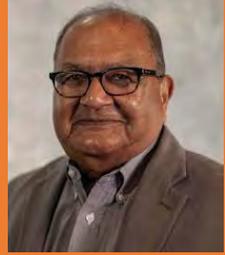
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Impacts

- Offered new paradigms for the field
- Advanced multidisciplinary and interdisciplinary research
- Inspired the creation of an institution, new publication outlets, and other structural changes
- Brought members of the field together around a common purpose
- Trained generations of researchers



The *People* Make the Assessment



First Assessment: **200+** Staff, Students, Reviewers Workshop Participants

Second Assessment: **132** Contributing Authors

The Third Assessment

- **Summary** of Key Findings and Recommendations
- **Introduction**
- **Chapter 1:** Disasters in the U.S.
- **Chapter 2:** Counting the Costs: The Rising Toll of Disasters
- **Chapter 3:** The Enduring Societal Consequences of Disaster
- **Chapter 4:** Understanding Risk and Resilience: Exposure, Vulnerability, and Capacity
- **Chapter 5:** Mitigation Matters: Reducing the Impact of Disasters
- **Chapter 6:** Cultures of Preparedness
- **Chapter 7:** State of Emergency: Responding to Disaster
- **Chapter 8:** Recovering from Disaster
- **Chapter 9:** Research Infrastructure and the Research Workforce
- **Chapter 10:** The Future: Convergent Hazards and Disaster Research



The Third Assessment

Appendices

- **Appendix A:** Definitions of Key Concepts
- **Appendix B:** Data Sources
- **Appendix C:** Other Resources Generated as Part of the Third Assessment
- **Appendix D:** Documenting Disaster: Writing the Third Assessment
 - The Process
 - The People and Organizations Involved

Bibliographies

- **Chapter Specific Bibliographies Online**



Scope

- **Literature and Time:** This assessment will attend to **foundational literature** as well as review peer-reviewed literature (journal articles, books, and book chapters) as well as select government reports published between **1999 and 2026**.
- **Geography:** Primary literature will focus on hazards and disasters affecting **U.S. states, tribal regions, and territories**. Recognition that the issues are global and therefore, findings from other regions will be integrated as possible and appropriate.
- **Disciplines:** This is a social science-led assessment that will integrate perspectives from public health, engineering, the physical sciences, and humanities.
- **Natural Hazards and Disasters:** The central focus of this assessment is on **natural hazards** such as earthquakes, volcanoes, floods, drought, hurricanes, wildfires, heat waves, cold waves, tornados, landslides, tsunamis, and avalanches. The assessment will also include recognition of the importance of research on other disaster types and crises of profound public concern. Examples include: (a) terrorism, cyberterrorism, acts of mass violence, (b) industrial accidents and technological disasters, (c) pandemic and other public health emergencies, and (d) interlocking social crises such as poverty, the drug epidemic, affordable housing crisis and homelessness, and migrant resettlement.



Structure and Approach

The assessment will be led by **Lori Peek** and the **Natural Hazards Center** team. The work will be guided by an 8-person, **multidisciplinary Steering Committee**.



Lori Peek,
Sociology



Divya Chandrasekhar,
Regional Planning



Shideh Dashti,
Geotechnical Engineering



James Kendra,
Geography



Abbie Liel,
Structural Engineering



Michelle Meyer,
Sociology



Monica Schoch-Spana,
Anthropology &
Public Health



Eric Tate,
Geography



Tricia Wachtendorf,
Sociology

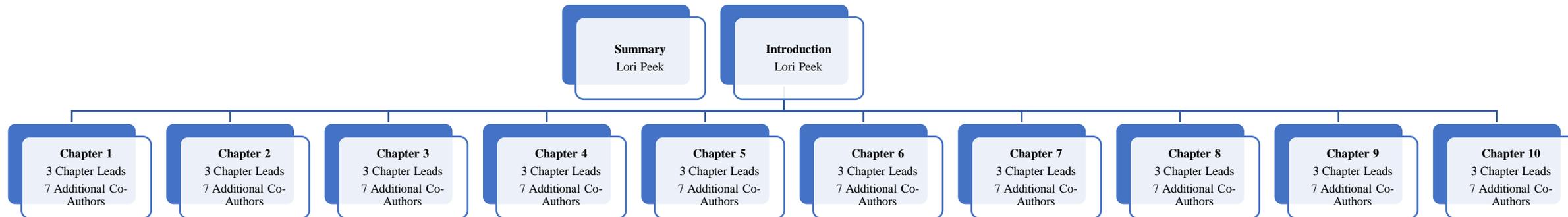
Structure and Approach

The assessment will include a **summary, introduction, and 10 chapters.**

Peek will serve as **lead author** for the assessment.

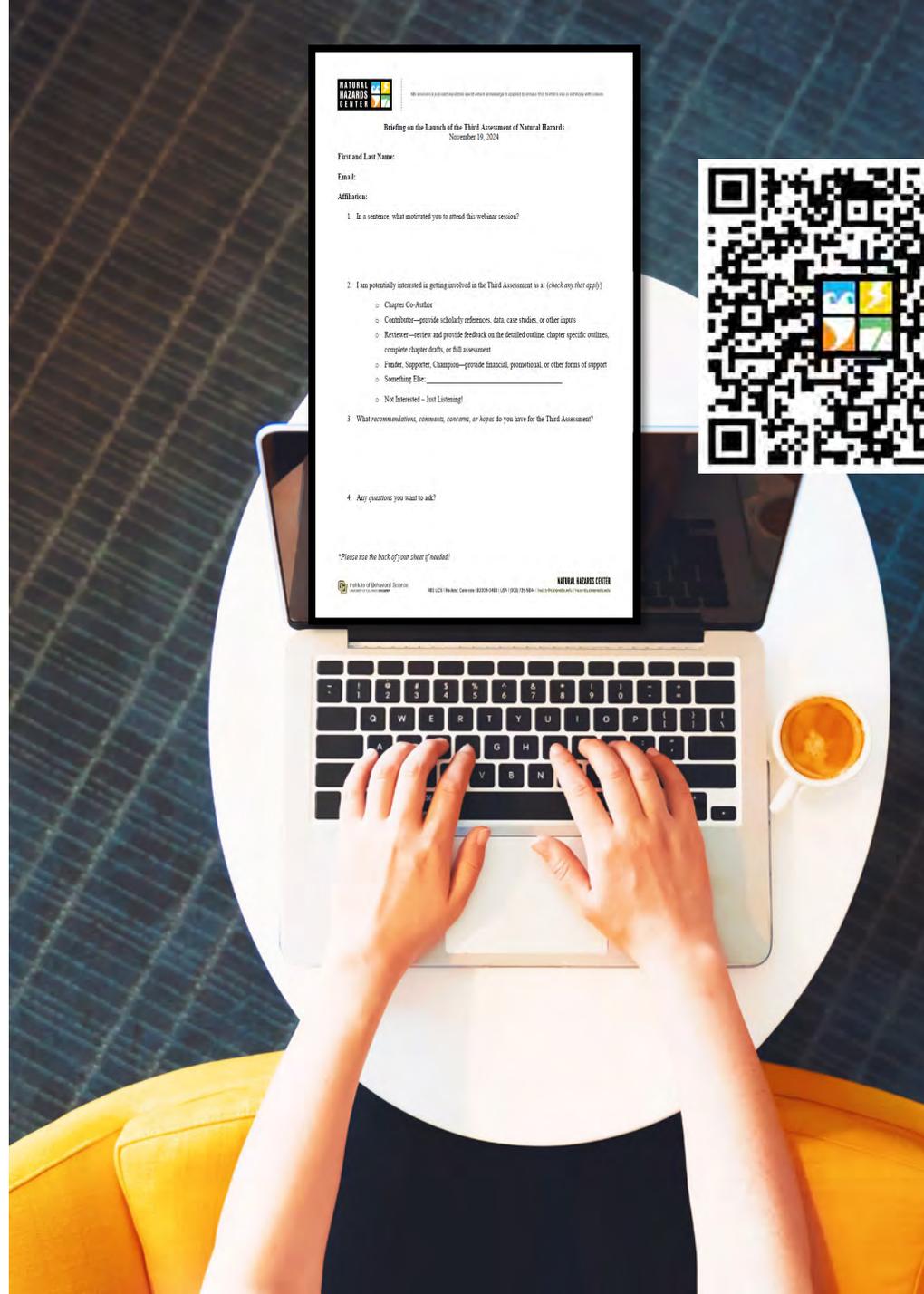
Each chapter will involve:

- **1 lead chapter author and 2 co-lead chapter authors**—these individuals will take primary responsibility for producing the chapter on time.
- Up to **~7 additional chapter co-authors**—these individuals will help write text for the chapter.
- **Considerations:** a) technical expertise; b) disciplinary and functional diversity; c) demographic diversity; d) career stage (early career to senior scholars).



Ways to Get Involved + Time Commitments

- **Chapter Co-Author**
- **Contributor**—provide scholarly references, data, case studies, or other inputs
- **Reviewer**—review and provide feedback on the detailed outline, chapter specific outlines, complete chapter drafts, or full assessment
- **Funder, Supporter, Champion**—provide financial, promotional, or other forms of support
- **Some Other Role?**



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WE INVOLVE A DIVERSE RANGE OF EXPERTS AND STAKEHOLDERS TO IMPROVE THE QUALITY AND RELEVANCE OF OUR ASSESSMENTS.

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Documentation and Process

The involvement of all people who help produce this assessment will be **meticulously** documented to:

- ensure that **proper credit** is given and
- encourage **future replication** of this effort.

A **shared drive** has been established to ensure collaboration.

We will use **templates** for the chapters to ensure as much consistency across chapters as possible.

- What is the existent knowledge on this topic or issue?
- What elements of that knowledge base have stood the test of time and are still valid?
- What elements of the knowledge base have been modified or refuted by recent research?
OR What elements have been challenged by climate, social, technological, or other forms of change?
- Where are the fundamental knowledge and data gaps?



Envisioned Audiences

1. Primary Audiences

- i. Undergraduate and graduate students across multiple disciplines / degree programs
- ii. Researchers in academic, government, private sector, and non-profit settings / Researchers in the social and behavioral sciences, public health and medicine, engineering, and the natural sciences will be especially important audiences for the assessment
- iii. Leaders and team members in [hazards and disaster research centers](#) and faculty and students in [emergency management programs](#) in higher education

2. Additional Audiences

- i. Practitioners in local, state, federal, tribal, and territorial hazard mission agencies
- ii. Government, philanthropic, and private funders interested in using this work to set future research funding agendas.
- iii. Journalists, public commentators, and public information officers



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Possible Outputs

Scholarly Outputs

1. The Third Assessment
2. Additional Volumes (?)
3. Journal Articles
4. Bibliographies

Research to Practice to Policy Outputs

1. Briefing Papers Co-Created with Practitioners or Policy Makers
2. One-Page PDF Summaries
3. Brochures

Educational and Promotional Possibilities

1. Curricular Materials
2. Brief Videos
3. Podcasts
4. Social Media Posts
5. Language Translations?



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Timeline, Support, and Next Steps



2022-2023

- Background Research
- Interviews
- Process and Approach Development

2024

- Steering Committee Meeting
- Formal Launch (In Person and Online) Launch
- Invitations to Authors

2025-2027

- Bibliography Development
- Assessment Work
- Chapter Drafts and Reviews
- Annual Workshop and Online Briefings
- Sharing Preliminary Findings

2028

- Final Assessment Reviews
- Finalize and Submit Assessment
- Continue Development of Outputs



Support

- **Acknowledgements:** The Federal Emergency Management Agency, via supplemental funding to the National Science Foundation, provided funding for the launch of the Third Assessment Launch



FEMA



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We envision a just and equitable world where knowledge is applied to ensure that humans live in harmony with nature.

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your form!



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THANK YOU



Questions? Contact:
Lori Peek, Ph.D.
Lori.Peek@Colorado.edu

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