

Community engagement and research during climate driven disasters: What are the ethical challenges?

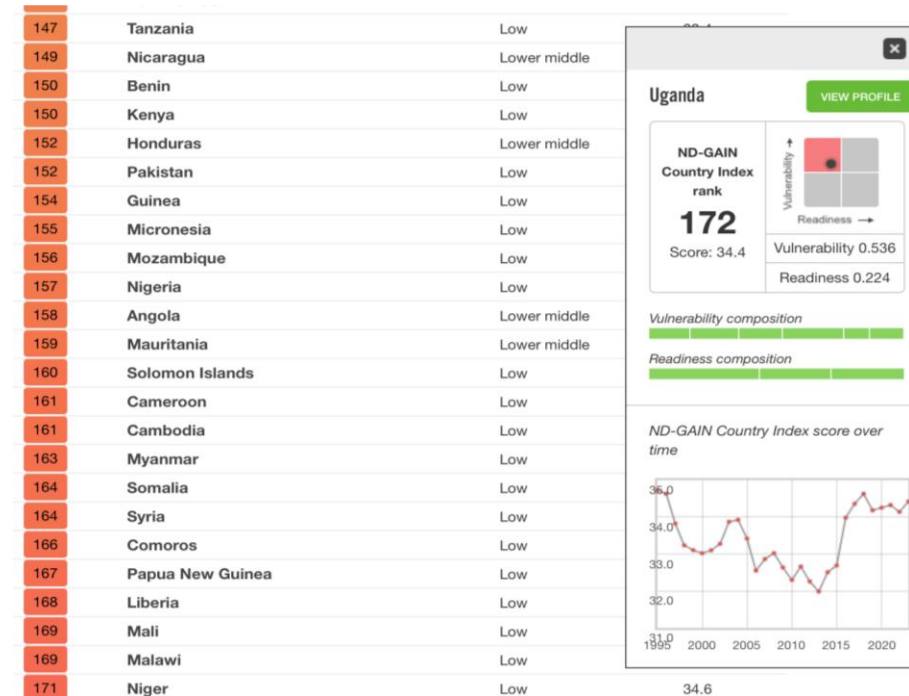
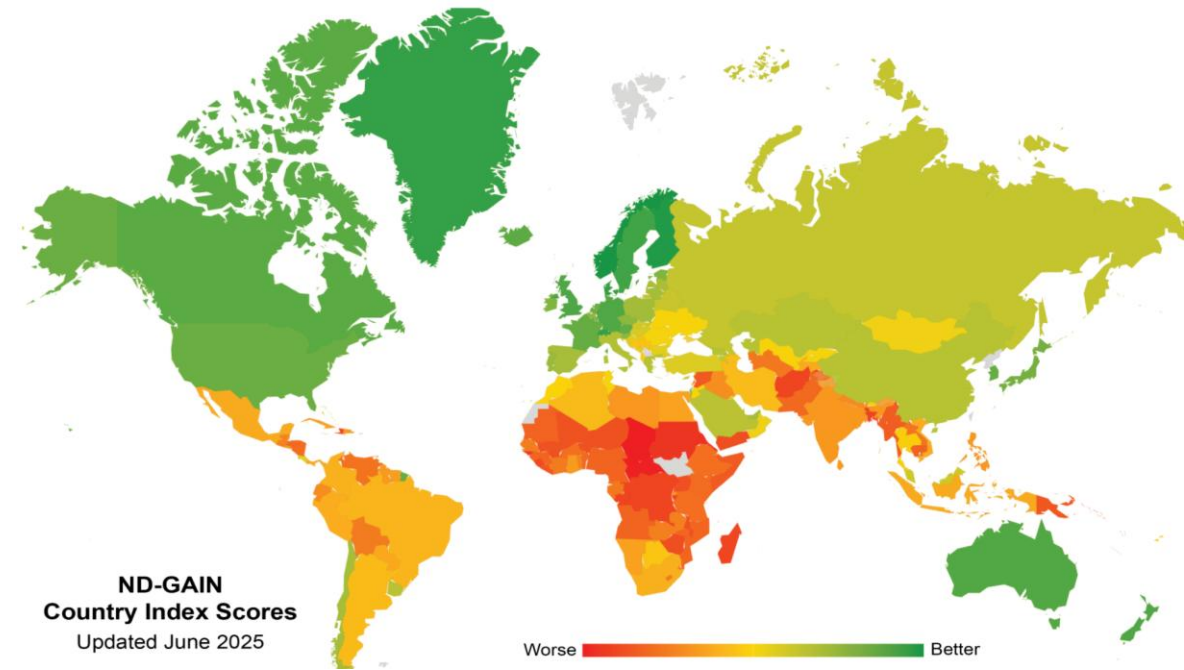
UNCST Conference Tuesday 21st October 2025

Yazidhi Bamutaze (Professor)

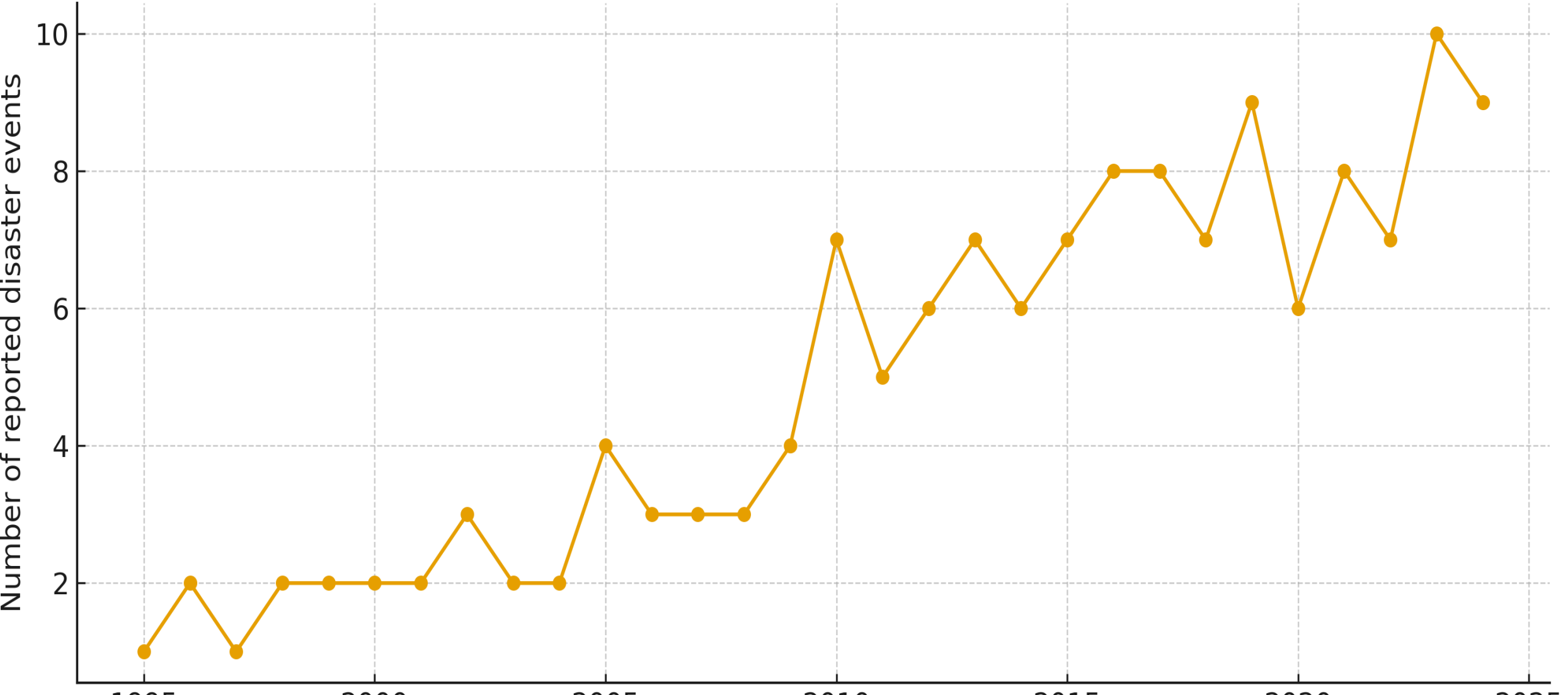
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Introduction

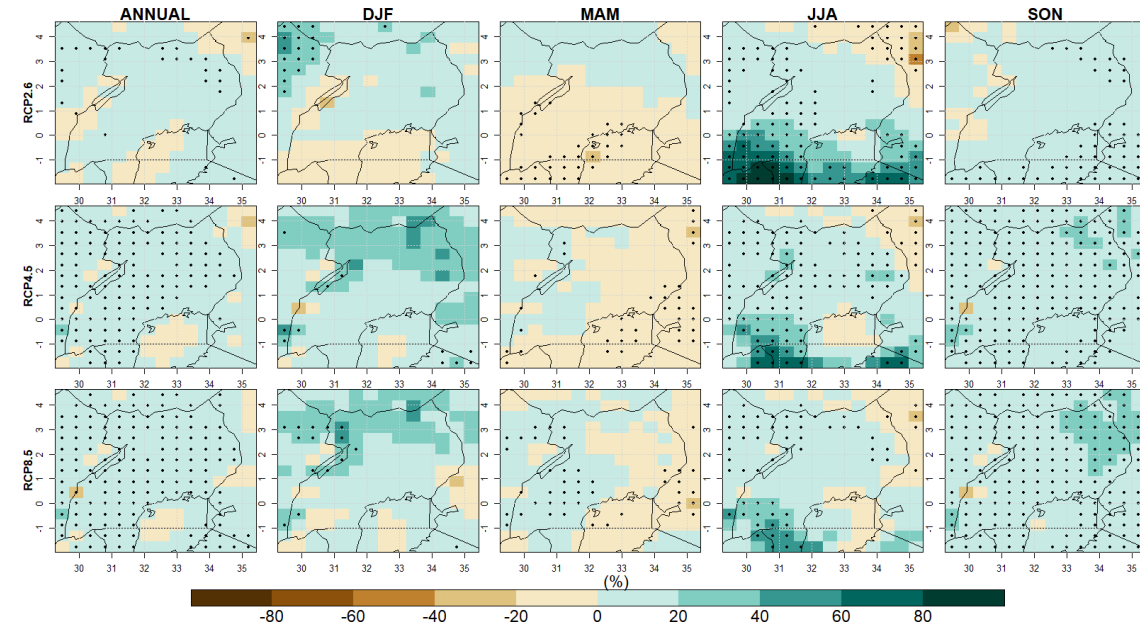
- Disasters globally have been increasing over the last 30 years in the frequency and magnitude.
- In Uganda, it is indicated that there has been a steep rise from 1-9 disasters registered annually.
- A significant number of disasters are linked to climate change which is expected to heighten the numbers
- Increasing need to knowledge on disaster risk to help in cultivating solutions



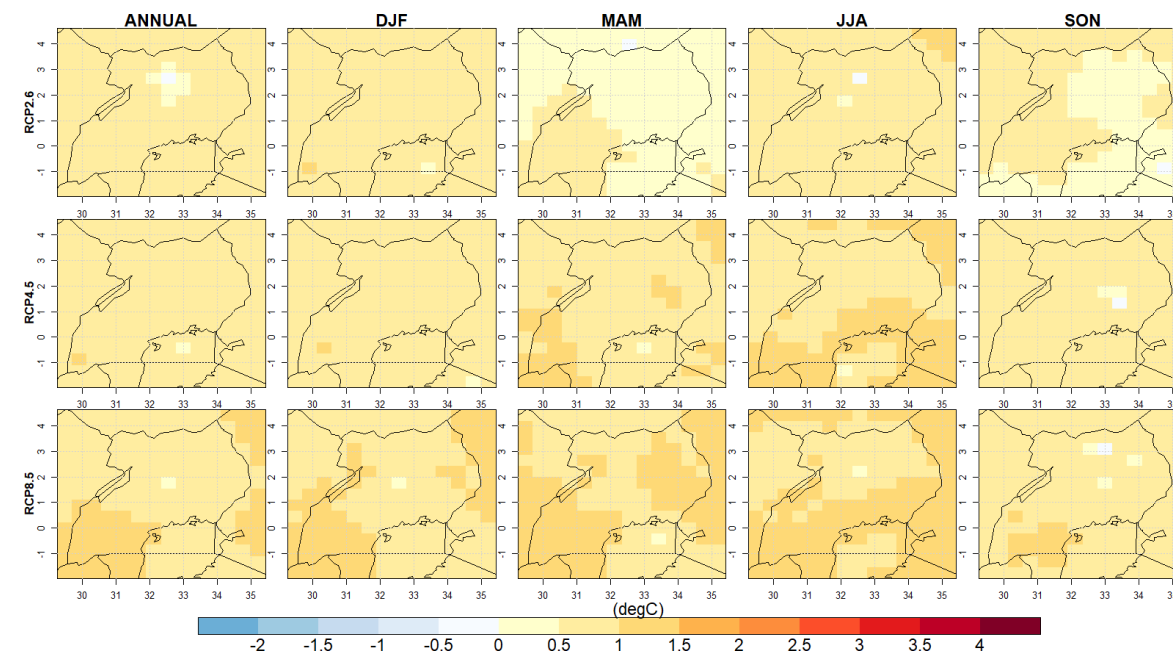
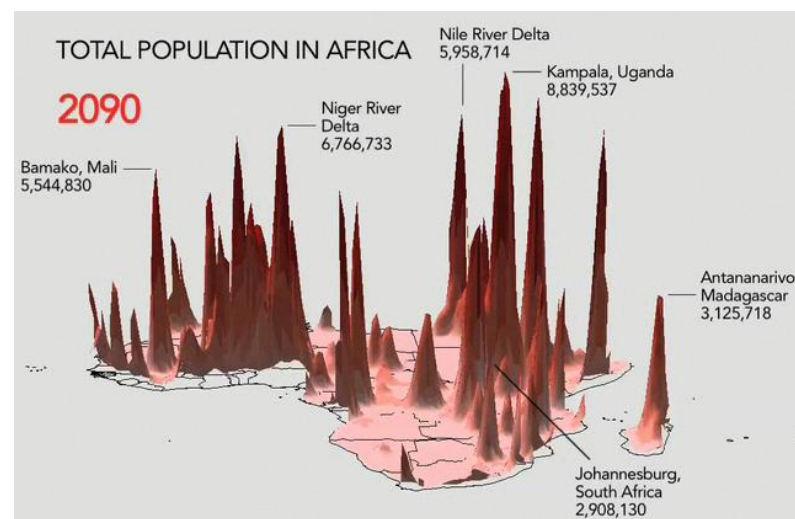
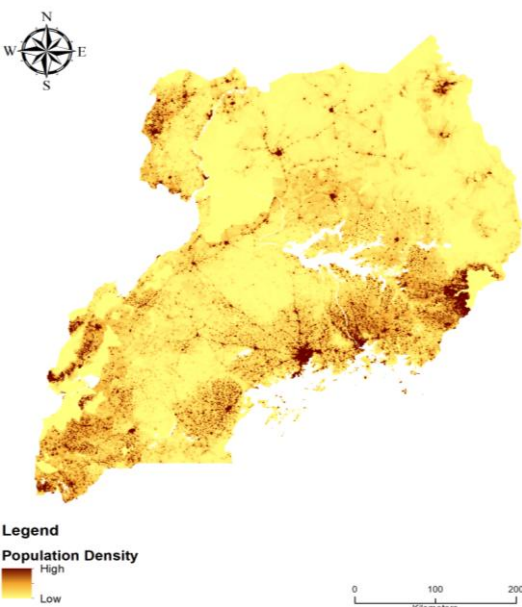
Ddisaster events in Uganda (1995-2024) EM-DAT & World Bank

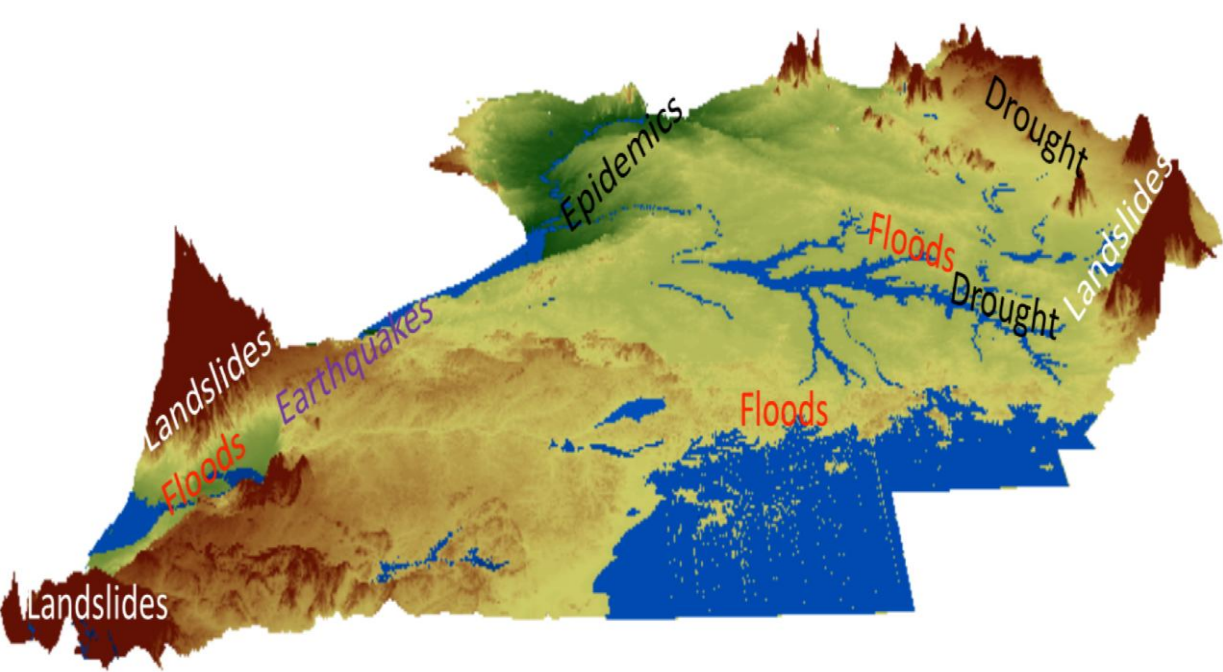


PARIS CLIMATE AGREEMENT

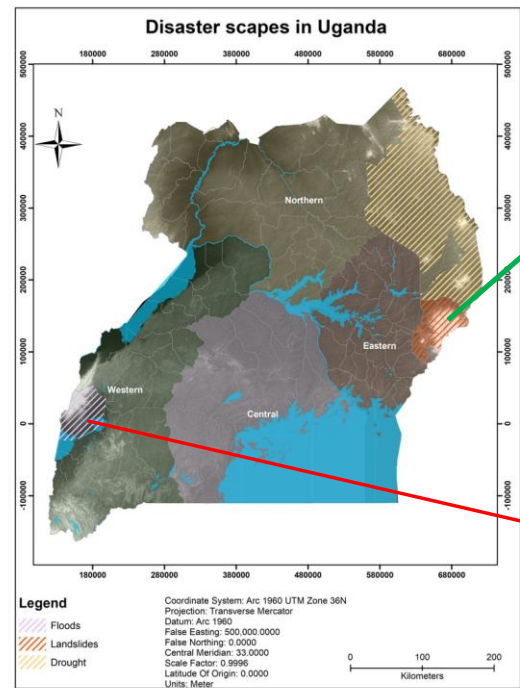
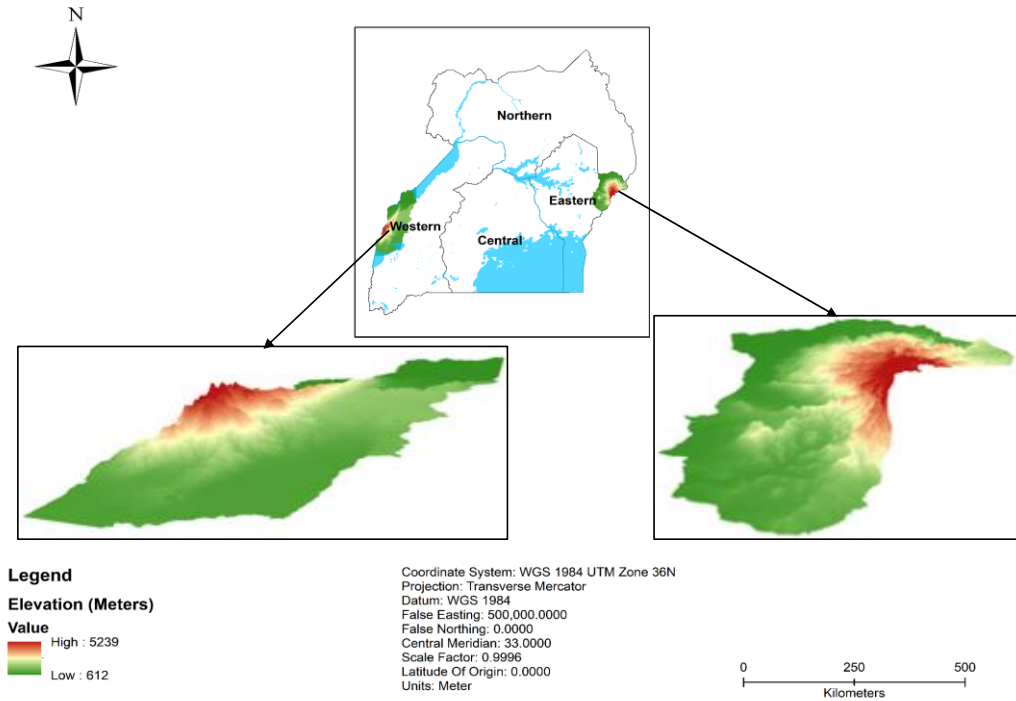


Changing climate and demographic conditions coupled with high vulnerability increases the risk to disasters ($D=H \times V$)





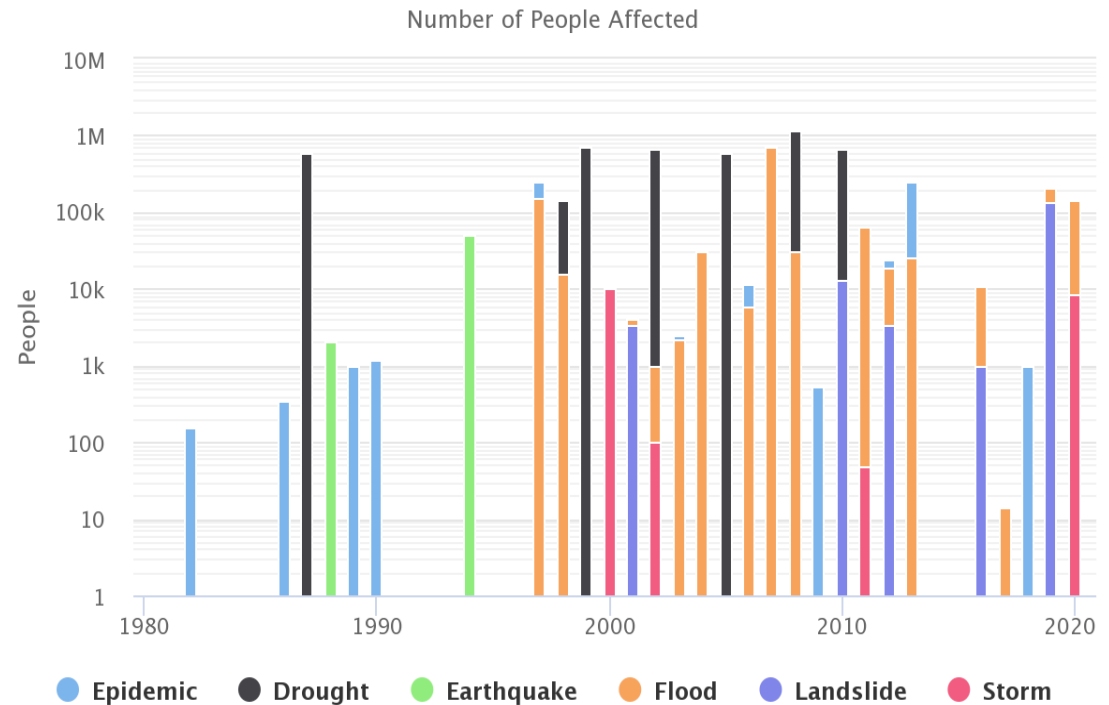
Highland areas and hydrologically connected landscapes are the hotspots of climate triggered disasters



Elgon system



Rwenzori system



Disasters in Uganda are heavily linked to climatic conditions

- Events of hydro-meteorological (70%) origin constitute the large majority of disasters in Uganda.
- They are likely to increase due to climate change especially in fragile and sensitive landscapes inhabited by vulnerable populations

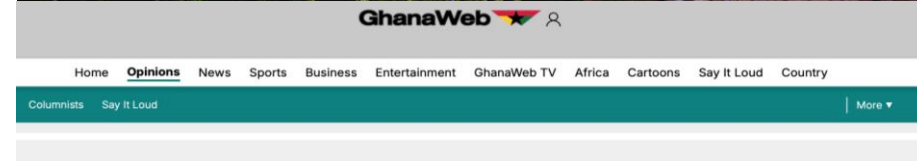


Questions of “*Fit for Purpose*” of knowledge creating institutions

- Increasing demand for knowledge, innovations and solution to climate change and disasters
- A paradigm shift underway (transformative universities)?
 - Solutions oriented to societal challenges
- 4th Generation University: Fostering innovation ecosystems and societal development
- 5.0 education model: Fostering innovation, industrialization and societal transformation

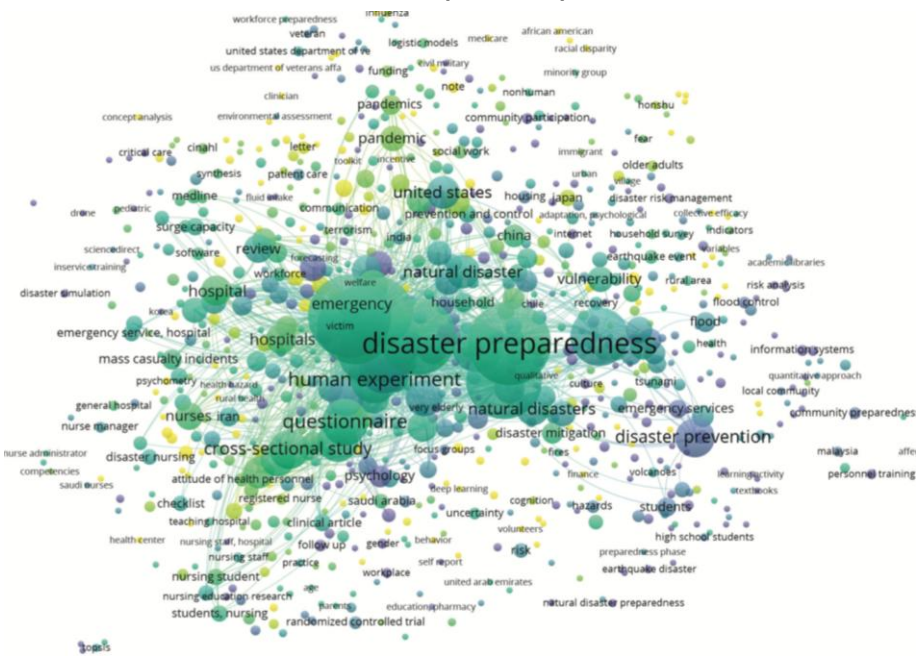
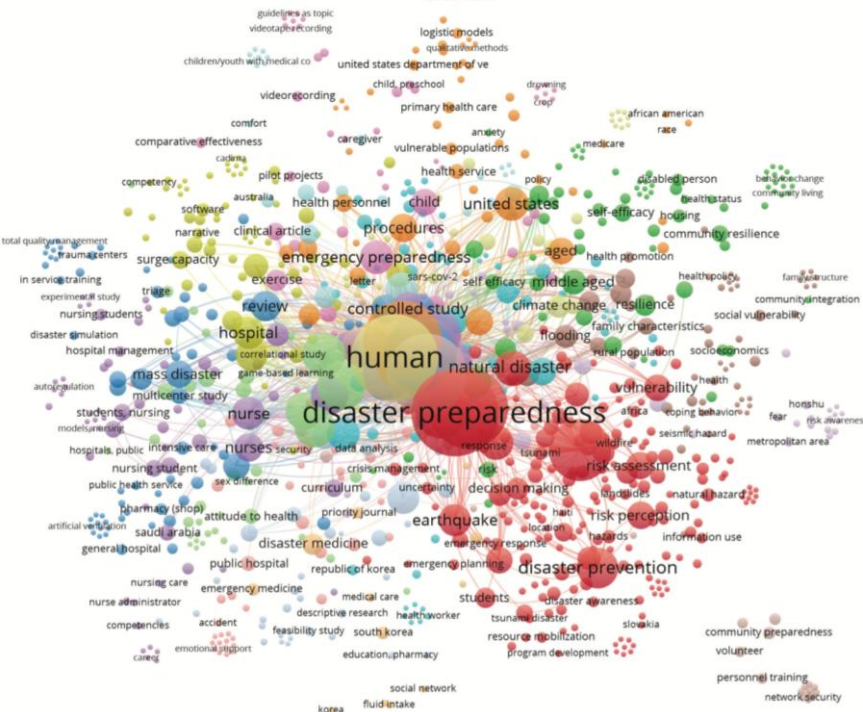
Towards the 4th generation university

The transformative role of TU/e in delivering innovation and impact in the Eindhoven region

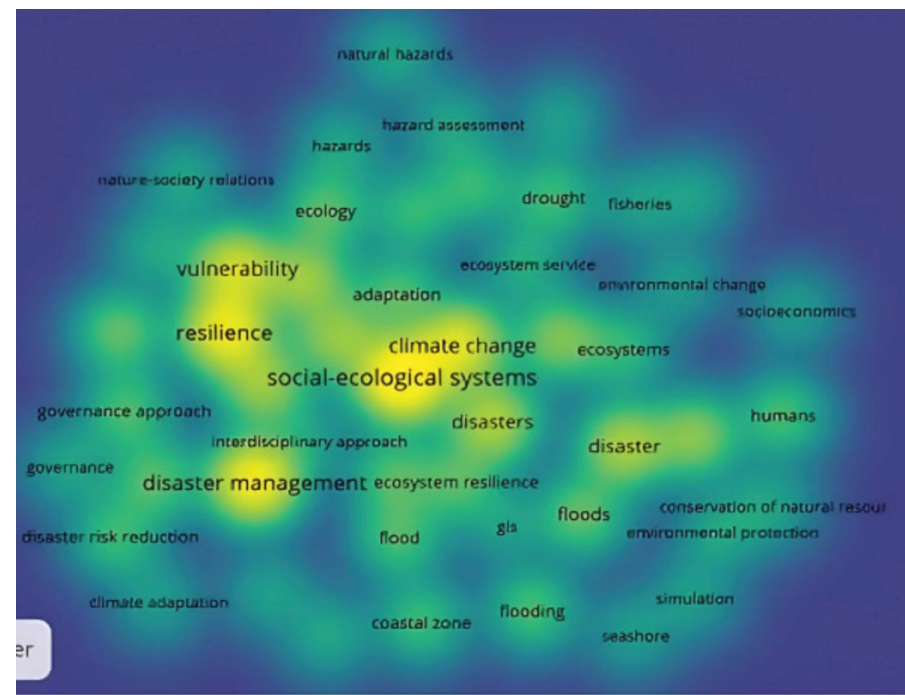
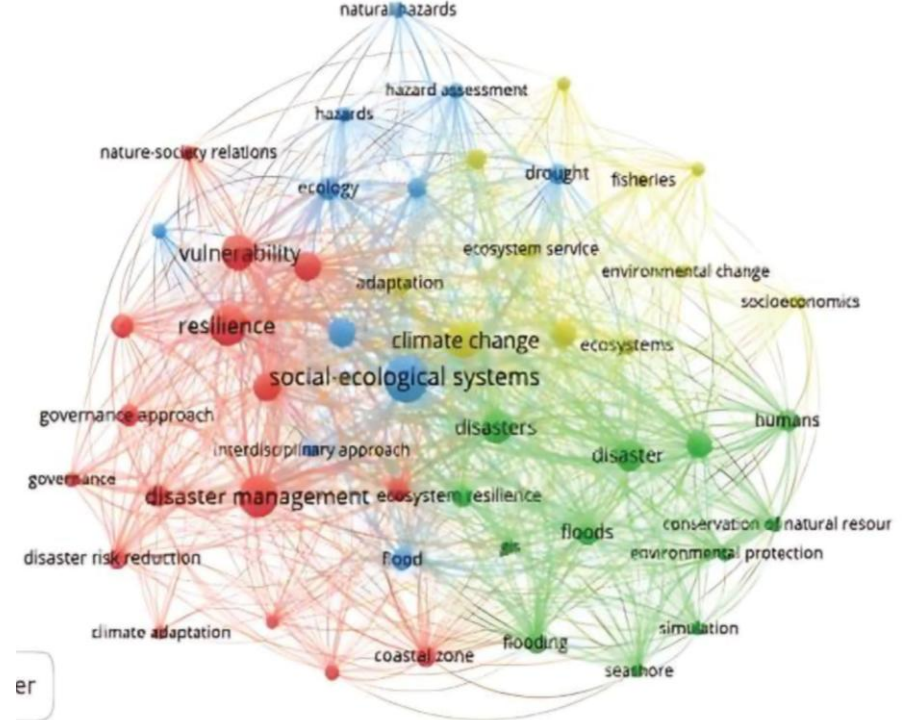


African Professors must stop counting publications — And start building nations

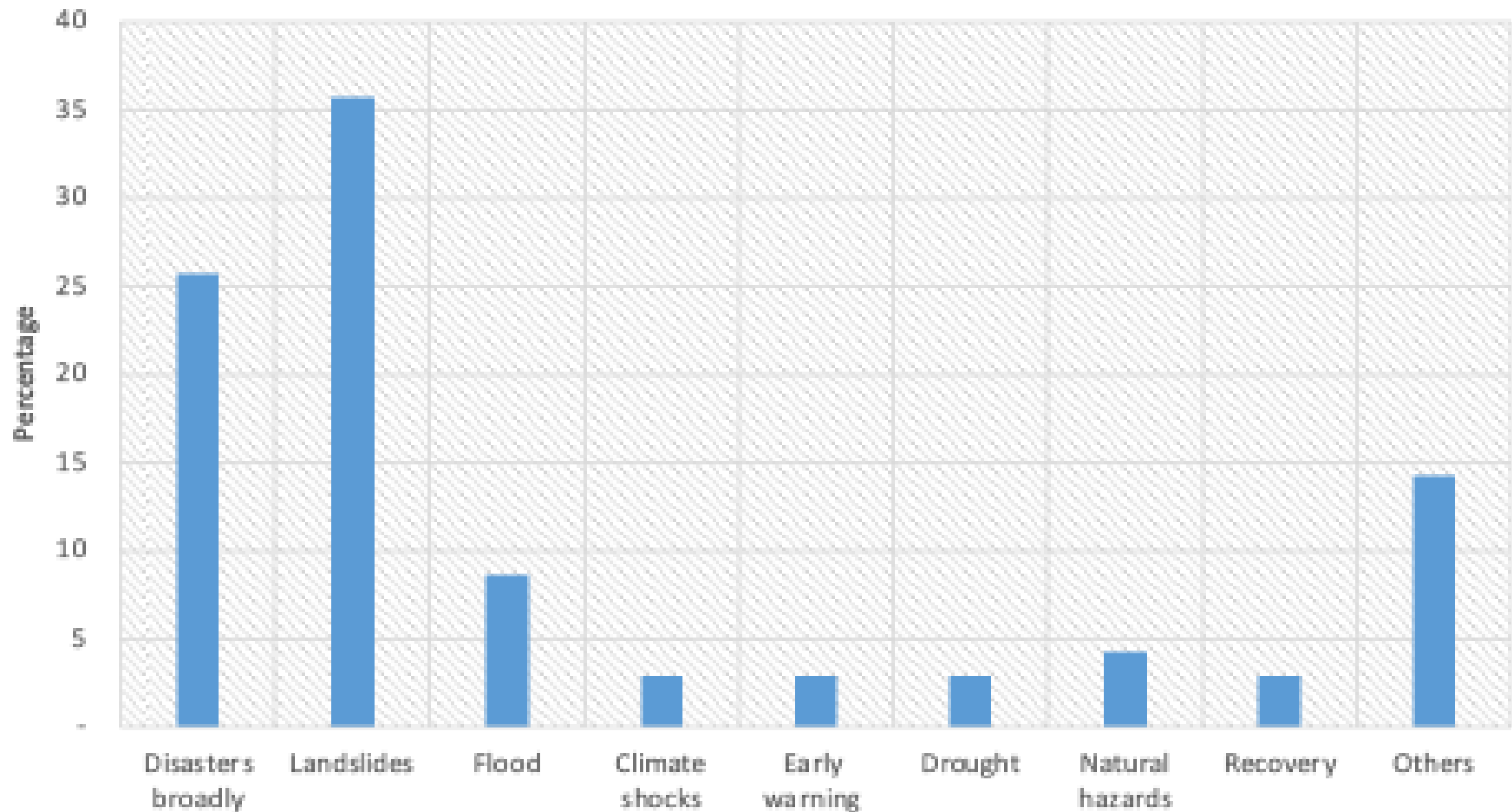




Increasing demand for multifaceted research on disaster risk and climate change



Disaster research largely focussed on landslides





Community engagement

- Meaningful engagement of the communities for research that is beneficial
- Resilience building (effective disaster preparedness, response, recovery, and resilience building.
- Community engagement recognizes local people as equal partners rather than mere recipients of aid.
- Leveraging on existing local knowledge and resources
- Fosters trust and and social change needed to address community vulnerabilities.

Disaster research increasingly becoming transdisciplinary



- Disaster research should ideally contribute to building resilient societies.
- Disaster research should generate actionable knowledge in disaster prone contexts. Thus, it should intentionally embed community perspectives at all stages.
- Legitimacy and representation creates co-ownership and translation into acceptable interventions





What ethical issues emerge for disaster research and response in communities?



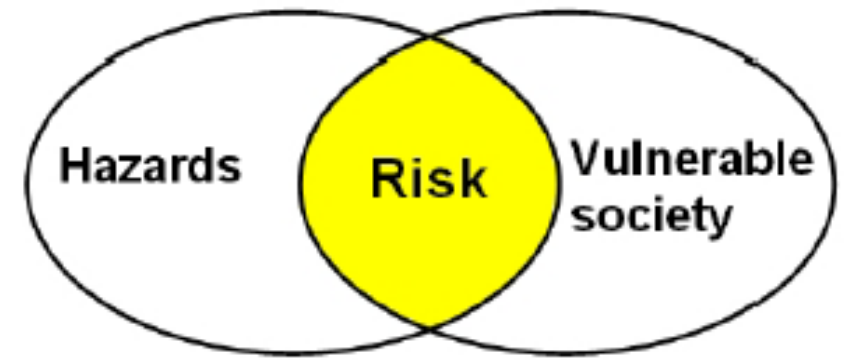
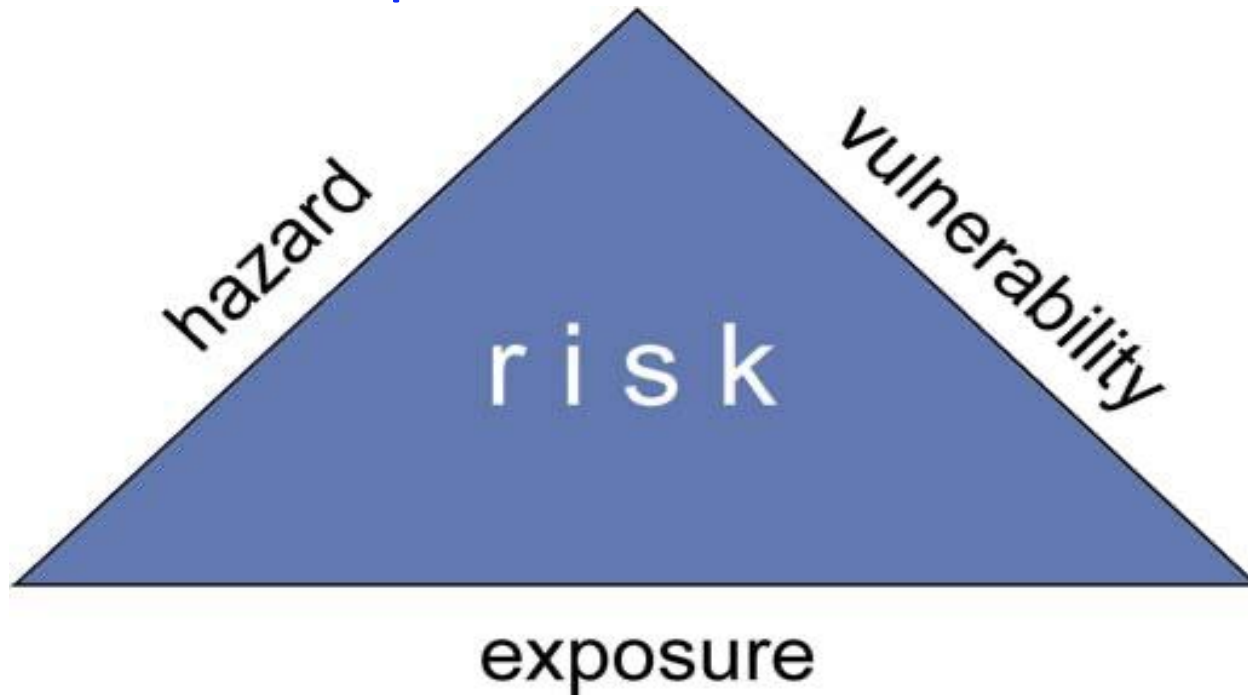
Does disaster research & response present distinctive ethical concerns compared to non-crisis situations?



Ethical stakes are higher for disaster research compared to conventional research



Disaster research is complex,
multidimensional, multifaceted
and multi-phased



Hazard & risk materialize



$$R_{ah} = H_{ah} \times E_a \times V_{ah}$$

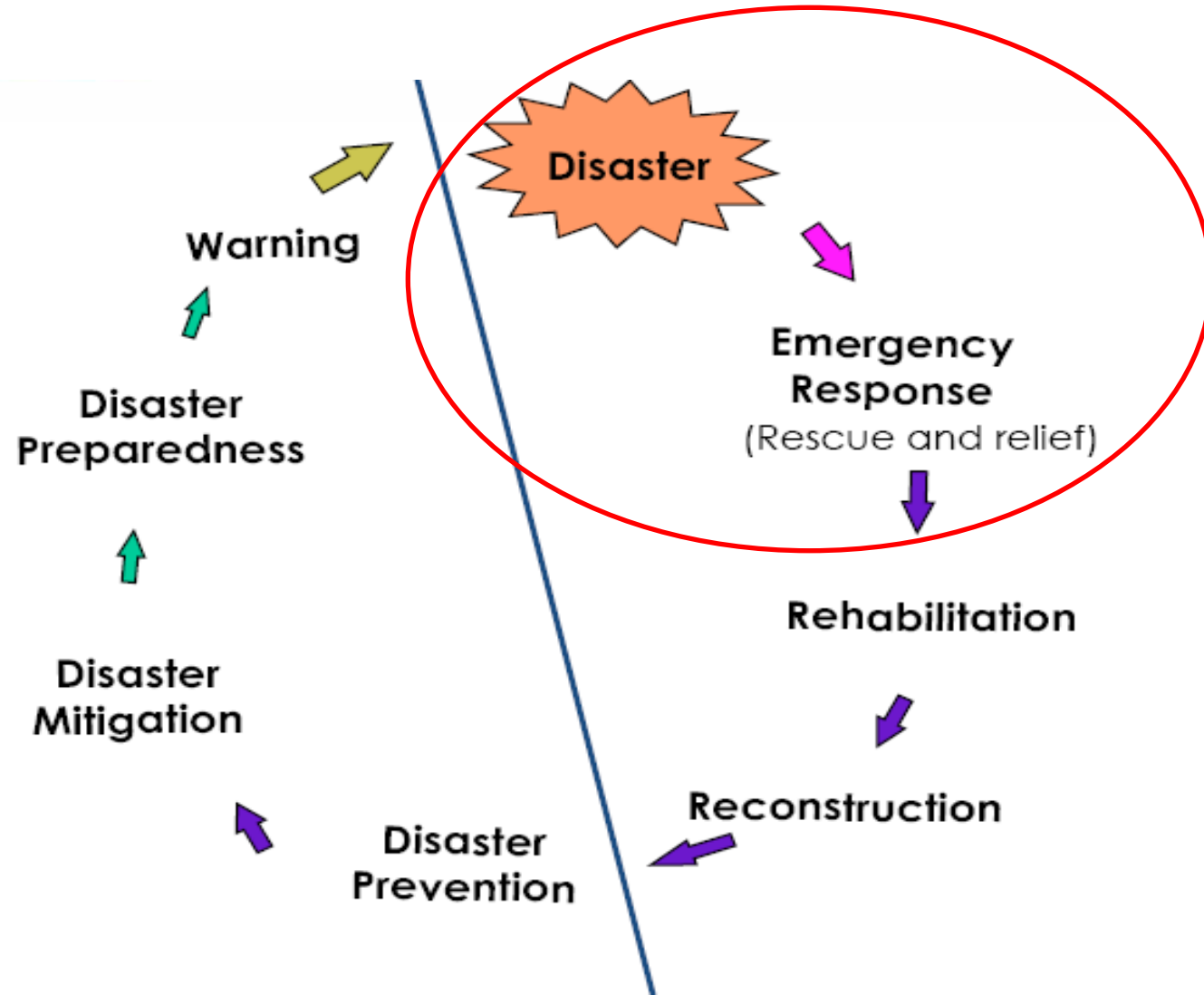
Risk = Hazard * Vulnerability * Amount of elements-at-risk

Ethical issues in disaster research and response

- Immediate response: Protocols that are hastily written because of the need to respond quickly after a sudden onset event
- Heightened vulnerability of research participants due to the destabilization and destruction following a disaster
- The primacy of saving lives following a disaster
- Cross-cultural issues when international researchers conduct studies during a disaster that has occurred in another country.



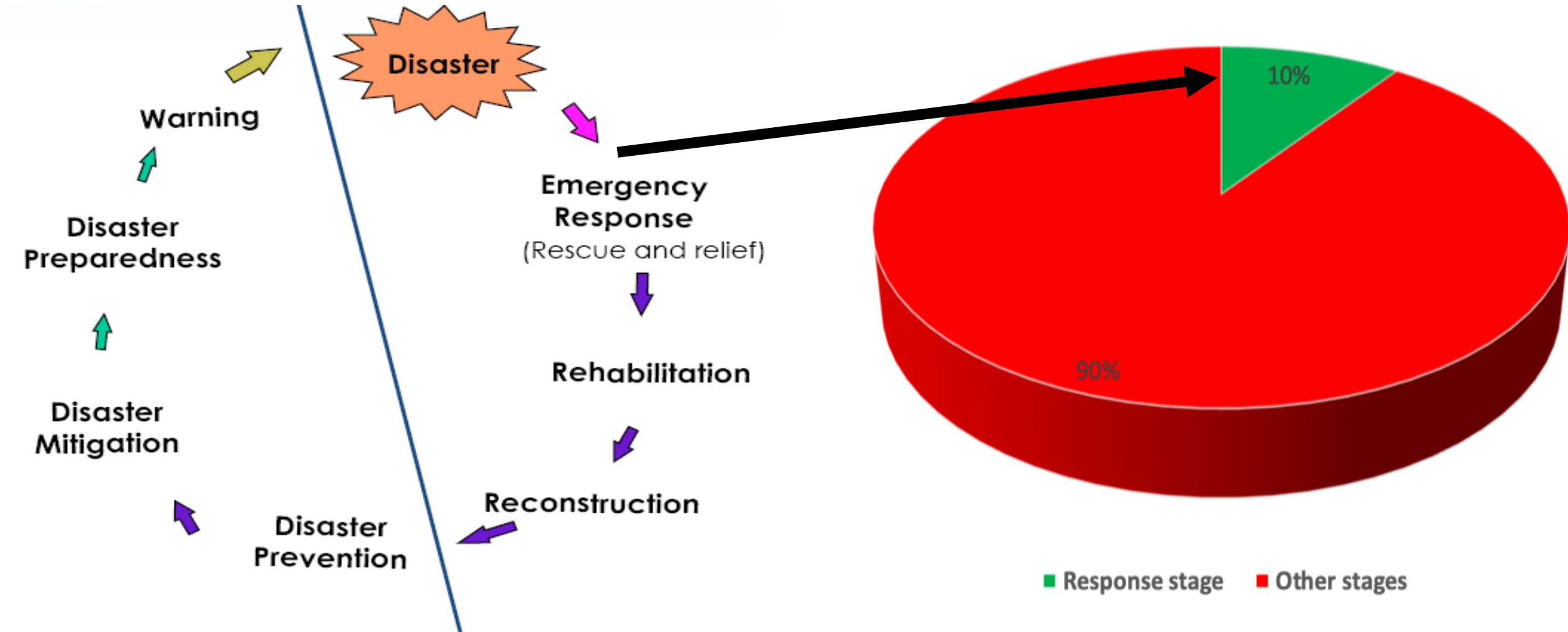
Disaster Research & Response



Research protocols during and after disaster events (the cycle)

- Research during a disaster situation imposes logistical and ethical challenges.
 - Adapting procedures for emergency contexts.
- Disasters situations are dynamic and risks can change in unpredictable manners.
- Disaster response activities must be ethically responsive, respecting the dignity, boundaries, and lived realities of affected populations.
- Complex ethical dilemmas
 - Equity,
 - ownership, reciprocity, cultural sensitivity, and power dynamics.

Limited studies in Uganda for the response phase





Problem Identification

Identify urgent and relevant research needs related to Uganda's disaster risks (e.g., floods, droughts, landslides)



Conceptualization and Design

Develop ethically sound and methodologically rigorous research designs



Universities and Centres



Data Collection and Fieldwork

Gather field evidence on hazards, exposure, vulnerability, and coping mechanisms



DMMC, M, UBOS



Data Processing, Analysis and Interpretation

Convert raw data into actionable insights and identify disaster patterns and vulnerabilities



Universities & GIS Centers (e.g. Makerere's Hub)



Knowledge Generation and Validation

Produce credible and validated disaster research outputs



Universities Researchers



Communication and Dissemination

Share findings in accessible formats



Universities & Communities



Application and Uptake

Use research results to inform practice, planning, and preparedness



OPM, NEMA, Ministry of Local Government



Monitoring, Evaluation, and Learning (MEL)

Track the effectiveness of research informed actions

OPM, NEMA, Parliament & Cabinet, Universities

Ethical issues in the disaster research value chain

- The research value chain is geared at having an impactful and transformative research
- At each stage of the value chain, there are ethical issues to contend with
- The responsibility for ensuring ethical research lies with the Research and Ethics Committees (RECS)
- RECs are charged with the review and oversight to better understand and respond to the ethical dimensions of disaster research.



Distinctive areas for disaster research ethics

Disaster research some distinctive ethical considerations that require attention to ensure that participants are protected.

1. Assessing the justification for conducting research
2. Addressing pervasive vulnerability during the event: Quite often you are dealing with vulnerable and traumatized persons
3. Promoting safety, confidentiality and data security in insecure or unstable environments; and
4. Gauging the possibility for meaningful community engagement

Why ethical issues matter more in disaster contexts

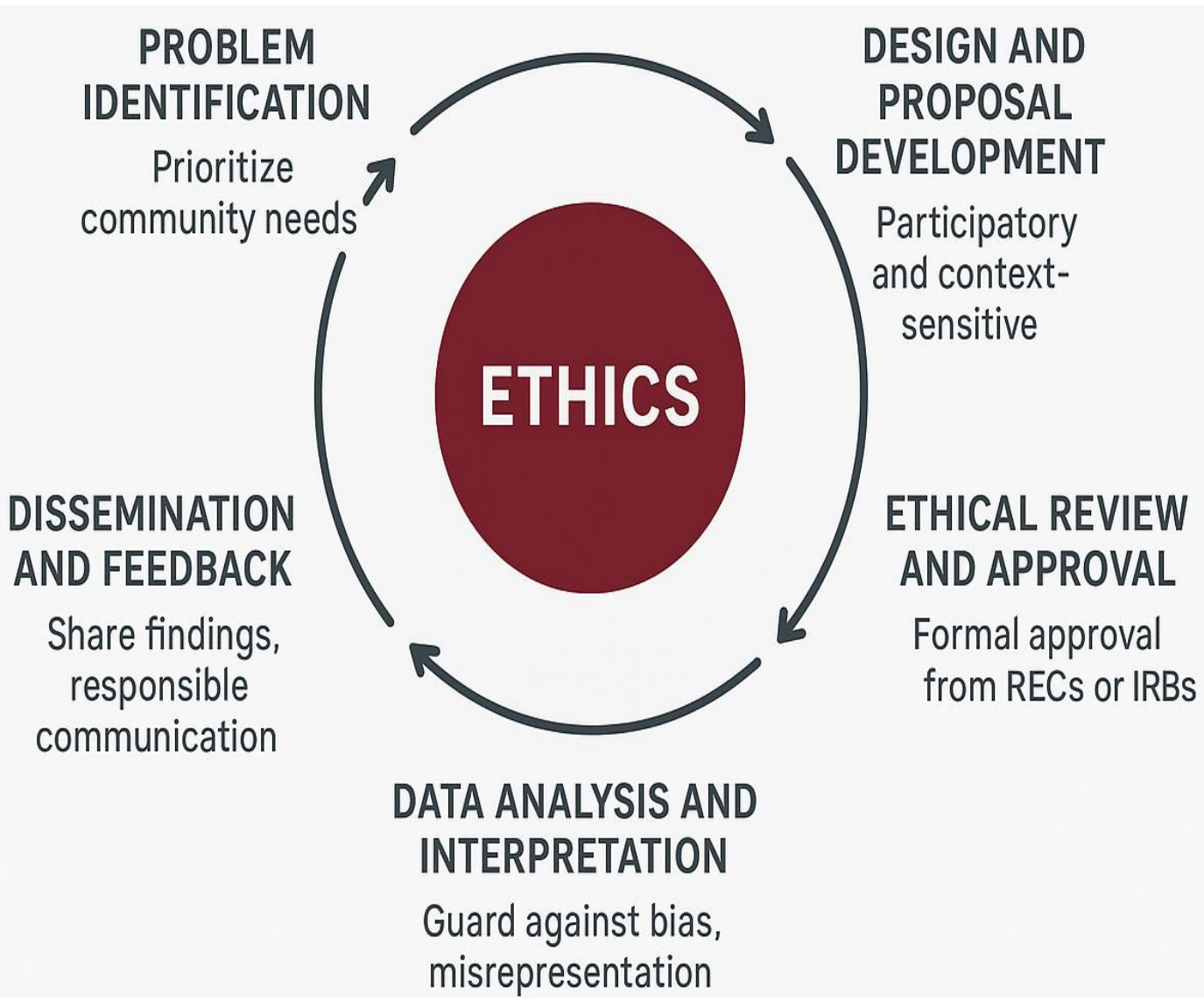
- Disaster settings are characterized by urgency, scarcity, trauma, and social upheaval,. Ethical issues are instilled to prevent
- Exploitation or harm to survivors: Research benefits outweigh harms to the community
- Damage to community relationships and cooperation
- Reduced effectiveness of aid and recovery efforts
- Moral injury and distress among both participants and researchers
- Loss of credibility and trust in research outcomes

Handling ethical issues along the value chain



Stage	Core Activities	Distinct Ethical Issues	Key Ethical Safeguards
1. CONCEPTUALIZATION & DESIGN	• Identifying research problem • Framing objectives • Selecting target populations	• Risk of exploiting crisis contexts for academic gain • Framing sensitive (issues (e.g, mortality, trauma) without community input	• Ethical reflexivity in design • Engage community representatives early
2. ETHICAL REVIEW & APPROVAL	• Submitting to Research Ethics Committee (REC) • Seeking emergency or expedited review	• Limited or delayed REC processes during crises • Local RECs may be disrupted or lack capacity	• Expedited but rigorous reviews • Dual approval (home & local) • Continuous ethics monitoring
3. FIELDWORK PREPARATION	• Recruitment planning • Team training • Access negotiation	• Researcher safety vs, duty to collect data • Potential community coercion to participate	• Simplify consentt processes • Continuous consent (reconfirm later) • Use trauma-Informed methods
4. DATA COLLECTION	• Surveys, interviews, observation • Engagement with survivors	• Informed consent challenges in chaotic settings • Re-traumatization through questioning	• Secure data storage • De-identifying data rigproously • Involve local cellaborators in interpretation
5. DATA HAN- DLING & ANALYSIS	• Storage, coding & Interpretation • Damage conderriation	• <i>Exploitation</i> or sensationalism of suffering • Exclusion of affected communities from benefits	• Prioritize comm- unity feedback before publication • Share findings locally • Ensures equitable authorship and representation

Situating ethics at the center of disaster research



- Core ethical principles in disaster (Respect for persons in disaster situations).
- Research benefits have to outweigh the potential harm in the communities.
- Fair and equitable selection of participants – working collaboratively with affected communities.
- Accountability and transparency: Results ultimately communicated and disseminated to the researched communities

Ethics at the disaster research value chain & response

- Beyond REC or IRB: Ethical: Ethical issues embedded across the entire research value chain:
 - Problem Identification: Prioritize community needs and avoiding disaster tourism
 - Co-creation and co-design: Engage communities in risky areas to define research questions.
 - Ethical review and approval from committees (RECs and IRB)
 - Data collection: Avoiding re-traumatization of the communities
 - Data analysis and interpretation: Avoiding and misrepresentation
 - Dissemination: Sharing findings with affected communities and relevant authorities.

Issues of consideration



- Context sensitivity and adaptability
 - Ethical frameworks should be flexible & allow for rapid ethical assessment.
 - Recognition of power imbalances between researchers and participants.
 - Account for cultural and contextual norms of affected communities.
- Ethical competencies
 - Developing context-specific ethical guidelines for medical, social science.
 - Consideration of the possibility of including locals (communities) on the RECS
- Community empowerment
 - Findings contribute to recovery and resilience building

