

Resilience Planning for Climate-Influenced Hazards and Health Impacts for Virginia Tribes



Nicole Hutton, Institute for Coastal Adaptation and Resilience¹

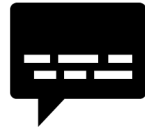
Juita-Elena (Wie) Yusuf, School of Public Service¹

Jesse Palma, Geography Program¹

¹Old Dominion University



Project Overview



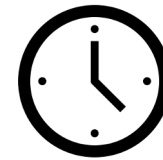
Purpose

To develop a Tribe-focused holistic resilience planning process for climate-influenced hazards, and to develop a resilience building integration model for leveraging partnerships and capturing synergies across health-hazards initiatives.



Research Site

- Mattaponi Indian Tribe & Reservation
- Upper Mattaponi Indian Tribe
- Both locations adjacent to King William County, a coastal Virginia locality, on the Mattaponi River approximately 50 miles upstream from the Chesapeake Bay.



Timeline

- Dec 2022: Completed initial assessment with Tribal liaisons
- Feb 2023: Conducted workshops with community members to develop an agenda and Resilience Action Checklist
- Subsequent implementation processes vary in range from less than 1 year to 3+ years



Research Questions

1

How can the RAFT process be adapted to reflect Tribe-centered health implications of climate-influenced hazards?

2

How can Tribes leverage synergies between external partners and internal resources at the health-hazards nexus to bolster resilience building efforts?

Methods

RAFT Process

1. Scorecard

Resilience Assessment

Focus Groups & Interviews

2. Resilience Action Workshop

Resilience Action Checklists

Locality Implementation Teams

3. Implementation

Ongoing Assistance



Preliminary Findings

Necessary Initial Adaptations:

- Working with a Tribal liaison:
 - To complete initial assessment
 - To develop agendas
 - Liaison recruited workshop participants
 - To access/manage confidential documentation
- RAFT products and documentation reviewed, approved, and held by council
- Tribal inclusive language and cultural/community structure references within assessment scorecard
 - Inclusion of cultural assets
 - Traditional ecological knowledge
- No access to private documentation
- Extended planning periods



Public Health Implications



1

Established an offering for a holistic health-hazards resilience planning process through Tribe-centered engagement

2

Developed an integrative resilience building model that leverages Tribal and external resources in the context of previous and existing efforts

Public Health Implication

1

Identified an offering for holistic health-hazards resilience planning process through Tribe-centered engagement.

Scorecard Category	Mattaponi Indian Tribe and Reservation	Upper Mattaponi Indian Tribe	Total Score Possible
1) LOCALITY LEADERSHIP, POLICY, AND COLLABORATION	5	10	20
2) RISK ASSESSMENT AND EMERGENCY MANAGEMENT	11	15	20
3) INFRASTRUCTURE RESILIENCE	12	9	30
4) PLANNING FOR RESILIENCE	9	4	20
5) COMMUNITY ENGAGEMENT, HEALTH, AND WELL BEING	13	16	20
Total Score:	50	54	110

Public Health Implication

2

Developed an integrative resilience building model that leverages Tribal and external resources in the context of previous and existing efforts.

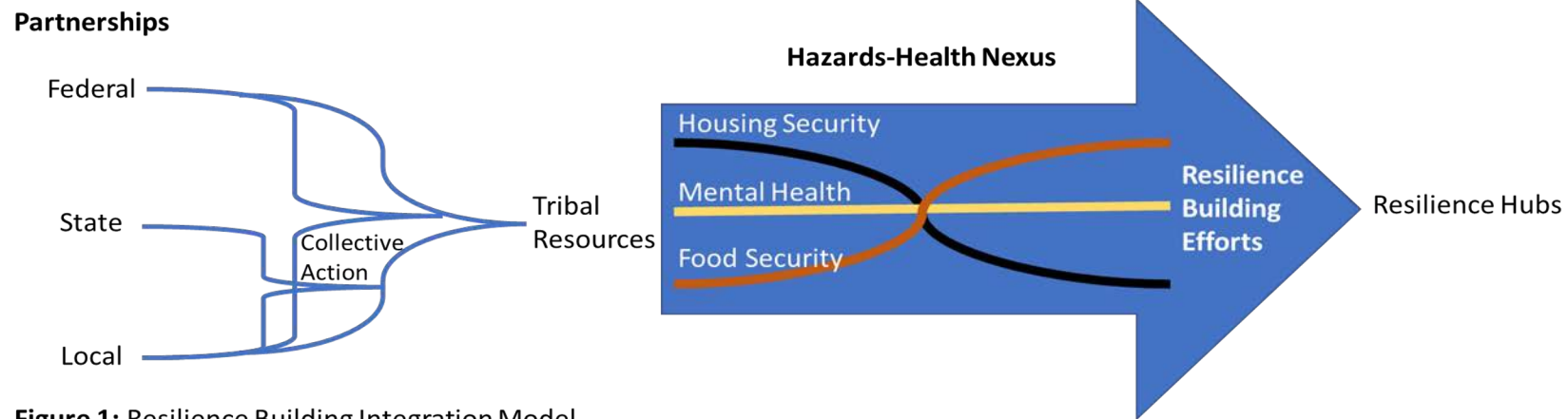


Figure 1: Resilience Building Integration Model

Public Health Implication

Resilience Hubs and
Synergistic Strategies



Acknowledgements

Anonymous

Environmental Resilience Institute at the University of Virginia
National Fish and Wildlife Foundation
National Oceanic and Atmospheric Administration*
School of Architecture at the University of Virginia
Virginia Coastal Zone Management Program*
Virginia Environmental Endowment
Virginia Sea Grant Climate Adaptation and Resilience

The Public Health Disaster Research Award Program is based on work supported by the National Science Foundation (NSF Award #1635593) through supplemental funding from the Centers for Disease Control and Prevention. Any opinions, findings, conclusions, or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of NSF, CDC, or the Natural Hazards Center.



View of the Mattaponi River from the Town of West Point, Virginia

