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Improving Justice and Avoiding Colonization in Managing Climate Change Related Disasters: A Case Study of Alaska Native Villages

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IMPROVING JUSTICE AND AVOIDING COLONIZATION IN MANAGING CLIMATE CHANGE RELATED DISASTERS: A CASE STUDY OF ALASKA NATIVE VILLAGES

E. Barrett Ristroph

CONTENTS

I.	INTRODUCTION	
II.	FRAMEWORK TO PREVENT AND RESPOND TO DISASTERS	104
	A. How Disaster Declarations Work	104
	B. Efforts to Address Disasters Before They Happen	109
	C. Previous Research Relevant to Disasters Affecting ANVs 112	
III.	Key Findings	113
	A. Overview of Disaster Declarations in Alaska	113
	B. Challenges for ANVs in Preparing for and Responding to	
	Disasters	115
	1. Limited Preparation at the Local Level	115
	2. Limited Support at the National Level	116
	3. Little Local Control when Disaster Strikes	117
IV.	DISCUSSION AND RECOMMENDATIONS	121
	A. Potential for Amending the Stafford Act	122
	B. Smoothing the Response and Recovery Process	124
	C. Thinking beyond FEMA and the Stafford Act	126
	D. ANV Mobilization	126
V.	Conclusion	

IMPROVING JUSTICE AND AVOIDING COLONIZATION IN MANAGING CLIMATE CHANGE RELATED DISASTERS: A CASE STUDY OF ALASKA NATIVE VILLAGES

E. Barrett Ristroph^{*}

I. INTRODUCTION

From severe weather to flooding and rising sea levels, climate change has begun to affect the well-being of communities across America.¹ There has been an increase in climate change-related disasters, including disasters associated with coastal flooding and erosion as well as those related to increasingly severe storms.² American communities have increasingly called on their state and national government for help in the face of severe storms and flooding disasters.³ Small, impoverished, and indigenous

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¹ John Walsh et al., *Our Changing Climate*, *in* CLIMATE CHANGE IMPACTS IN THE UNITED STATES: THE THIRD NATIONAL CLIMATE ASSESSMENT 19, (Jerry M. Melillo, Terese (T.C.) Richmond, & Gary W. Yohe, eds., 2014).

² Suwan Shen & E. Barrett Ristroph, Are Climate-Vulnerable Communities Getting More Disaster Declarations? A Case Study of Flood-Prone Indigenous Communities in Alaska, NAT. HAZARDS REV. (forthcoming) (2019); Jennifer Leaning & Debarati Guha-Sapir, Natural Disasters, Armed Conflict, and Public Health, 369 NEW ENGLAND J. MED. 1836 (Nov. 2013).

³ A. Cavallo, *Disaster Cost Index*, ALASKA DIVISION OF HOMELAND SECURITY AND EMERGENCY MANAGEMENT, (Jan. 20, 2015); R. Steven Daniels, *The Rise* of Politics and the Decline of Vulnerability as Criteria in Disaster Decisions of the United States, 1953-2009, 37 DISASTERS 669 (2013); FEMA, Disaster Declarations Summary - Open Government Dataset,

https://www.fema.gov/media-library/assets/documents/28318 [https://perma.cc/CV76-YG3D] (last visited Dec. 5, 2018); Bruce R. Lindsay,

communities are among the populations that may be particularly vulnerable to climate change and climate-related disasters because they may require additional assistance.⁴

Principles of climate justice suggest that those who are the most responsible for climate change should assist non-contributing, atrisk populations in adapting to climate change and responding to disasters.⁵ While there are strong arguments for providing impoverished indigenous communities with climate change adaptation and disaster assistance, there is a danger that aid can have the effect of further "colonizing" these communities by reducing their ability to make decisions about their own fates⁶ and increasing their dependence on government resources.⁷ Providing assistance with disasters and climate change adaptation while ignoring the legacy of colonialism may also perpetuate colonialism through Western interventions that do not serve the long-term needs of indigenous communities.⁸ Consistent with the procedural aspects of climate justice principles, assistance needs to take place in a manner

FEMA's Disaster Relief Fund: Overview and Selected Issues, Congressional Research Service (May 7, 2014); Francis X. McCarthy, *FEMA's Disaster Declaration Process: A Primer*, Congressional Research Service, 13-14 (Nov. 12, 2014); Andrew Reeves, *Political Disaster: Unilateral Powers, Electoral Incentives, and Presidential Disaster Declarations*, 73 THE JOURNAL OF POLITICS 1142, 1144 (2011).

⁴ W. Neil Adger & Jon Barnett, *Four Reasons for Concern about Adaptation to Climate Change*, 41 ENVT. & PLANNING A 2800 (2009); T.B. Bull Bennett et al., *Indigenous Peoples, Lands, and Resources, in* Melillo, et al., *supra* note 1, at 297; Elizabeth Ann Kronk Warner and Randall S. Abate, *International and Domestic Law Dimensions of Climate Justice for Arctic Indigenous Peoples*, 43 OTTAWA LAW REV. 113 (2013).

⁵ D. R. Nelson et al., *Adaptation to Environmental Change: Contributions of a Resilience Framework*, 32 ANNU. REV. ENVIRON. RESOUR. 395, 410 (2007). ⁶ Emilie S. Cameron, *Securing Indigenous Politics: A Critique of the Vulnerability and Adaptation Approach to the Human Dimensions of Climate Change in the Canadian Arctic*, 22 GLOBAL ENVTL. CHANGE 103, 104 (2012); Elizabeth Marino, *The Long History of Environmental Migration: Assessing Vulnerability Construction and Obstacles to Successful Relocation in Shishmaref, Alaska*, 22 GLOBAL ENVTL. CHANGE 374, 380 (2012); DANIEL R. WILDCAT, RED ALERT!: SAVING THE PLANET WITH INDIGENOUS KNOWLEDGE, at 39 (2009).

⁷ Shannon Michele McNeeley, Seasons out of Balance: Climate Change Impacts, Vulnerability, and Sustainable Adaptation in Interior Alaska, 37 (2009); Henry Huntington et al., The Changing Arctic: Indigenous Perspectives, in ARCTIC CLIMATE IMPACT ASSESSMENT - SCIENTIFIC REPORT 91, 62 (2005); Henry P. Huntington et al., Demographic and Environmental Conditions Are Uncoupled in the Social-Ecological System of the Pribilof Islands, 28 POLAR RESEARCH 119, 125 (2009).

⁸ Cameron, *supra* note 6, at 112.

that avoids interfering with indigenous sovereignty and promotes indigenous community participation.⁹

The purpose of this article is to outline national and Alaskan legal frameworks for disaster assistance; to show how these frameworks are reactive rather than proactive; and to illustrate how they can be problematic when utilized for communities that are not familiar with them and might not be adequately prepared to make post-disaster decisions. I focus on Alaska Native Villages (ANVs), which are federally recognized tribes and sovereign nations that are located within the State of Alaska and are subject to federal regulation. These indigenous communities, which comprise 41% of the United States' federally recognized tribes,¹⁰ are typically small, impoverished, and remote, and they tend to value traditional lifeways based on subsistence hunting and fishing.¹¹ I conclude that ANVs are not always able to get the help they need through these frameworks, which has led to climate injustice.

ANVs are a critical case study for two reasons. First, compared to the rest of the country, climate change is happening far more rapidly in Arctic Alaska (where many ANVs are located).¹² Arctic and sub-Arctic Alaska are the only places in the United States dealing with the problem of melting permafrost.¹³ ANVs are grappling with changes that have resulted in flooding and erosion, the decline of species on which they subsist, melting permafrost, and the delayed formation of the land-fast ice that used to serve as a protective barrier from destructive fall storms.¹⁴

⁹ Elizabeth Ann Kronk Warner & Randall S. Abate, *International and Domestic Law Dimensions of Climate Justice for Arctic Indigenous Peoples*, 43 Ottawa L. Rev. 113, 127 (2013); Jouni Paavola & W. Neil Adger, *Fair Adaptation to Climate Change*, 56 ECOLOGICAL ECONOMICS 594, 596 (2006); Sophie Theriault, *Indigenous Peoples and Climate Change Policies: A Comparative Assessment of Indigenous Governance Models in Canada*, Ch. 9 *in* LOCAL CLIMATE CHANGE LAW: ENVIRONMENTAL REGULATION IN CITIES AND OTHER

LOCALITIES (Benjamin J. Richardson, ed., 2012).

¹⁰ BUREAU OF INDIAN AFFAIRS, INDIAN ENTITIES RECOGNIZED AND ELIGIBLE TO RECEIVE SERVICES FROM THE UNITED STATES BUREAU OF INDIAN AFFAIRS, 82 FED. REG. 4915 (2017).

¹¹ E. Barrett Ristroph, *Alaska Tribes' Melting Subsistence Rights*, 1 ARIZ J ENVTL POL 47, 49 (2010).

 ¹² F. Stuart Chapin III et al., *Alaska*, 514, *in* Melillo, et al., *supra* note 1.
¹³ Id.

¹⁴ *Id.*, C.B. Field et al. *Summary for Policy Makers*, pp. 1-34 in CLIMATE CHANGE 2014: IMPACTS, ADAPTATION, AND VULNERABILITY, CONTRIBUTION OF WORKING GROUP II TO THE FIFTH ASSESSMENT REPORT OF THE

Second, climate change and disasters add to challenges already faced by ANVs related to their economic situation and colonization. The federal government arguably contributed to ANVs' climate vulnerability by requiring some ANVs to permanently settle in flood-prone locations not meant for year-round settlement.¹⁵ Some Alaska Natives and commentators perceive ongoing colonization in terms of the imposition of state and federal laws and social and economic practices that conflict with traditional practices and values of ANVs.¹⁶ These laws and practices have reduced the self-sufficiency of ANVs and limited their control over resources that could aid adaptation and resilience.¹⁷ ANVs typically lack the resources, workforce, and jurisdiction to undertake large-scale climate change adaptation and disaster response actions on their own.¹⁸ While ANVs retain sovereignty over their members,¹⁹

INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (C.B. FIELD ET AL, EDS. 2014); Ristroph, *supra* note 11, at 51-58.

¹⁵ Robin Bronen, *Climate-Induced Displacement of Alaska Native Communities*, BROOKINGS INSTITUTION 5 (2013),

www.Brookings.Edu/Research/Papers/2013/01/30-Arctic-Alaska-Bronen [https://perma.cc/93S9-ZMRE]; Jessica Scott, *Move or Wait for the Flood and Die: Protection of Environmentally Displaced Populations through a New Relocation Law*, 9 FLA. A&M U. L. REV. 369, 381 (2014); Robert J. Martin, *The Village of Kivalina Is Falling into the Sea: Should CERCLA Section 9626 (B) Be Available to Move the Village from Harm's Way*, 2 EARTH JURISPRUDENCE & ENVTL. JUST. J. 1 (2012).

¹⁶ INDIAN LAW AND ORDER COMMISSION, A ROADMAP FOR MAKING NATIVE AMERICA SAFER - REPORT TO THE PRESIDENT AND CONGRESS OF THE UNITED STATES, May 2015, 47, *available at*

https://www.aisc.ucla.edu/iloc/report/files/A_Roadmap_For_Making_Native_A merica_Safer-Full.pdf [https://perma.cc/7RTL-UUVT]; Harold Napoleon, *Alaska Natives: Still a People in Peril*, ALASKA DISPATCH, Oct. 18, 2014, *available at* http://www.adn.com/article/20141018/alaska-natives-still-peopleperil [https://perma.cc/2F9F-RVNM]; Lisa Wexler, *Looking across Three Generations of Alaska Natives to Explore How Culture Fosters Indigenous Resilience*, 51 TRANSCULTURAL PSYCHIATRY 73, 80 (2014); THOMAS BERGER, A LONG AND TERRIBLE SHADOW: WHITE VALUES, NATIVE RIGHTS IN THE AMERICAS SINCE 1492, at 130 (2d ed. 1999); Marino, *supra* note 6, at 375, 378. ¹⁷ Philip A. Loring et al., "*Community Work*" in a Climate of Adaptation: *Responding to Change in Rural Alaska*, 44 HUMAN ECOLOGY 119, 122 (2016); Amanda H. Lynch & Ronald D. Brunner, *Context and Climate Change: An Integrated Assessment for Barrow, Alaska*, 82 CLIMATIC CHANGE 93, 97 (2007); Huntington (2005), *supra* note 7, at 91.

¹⁸ E.B. Ristroph, *Improving the Quality of Alaska Native Village Climate Change Planning*, 11 J GEOG. & REGIONAL PLANNING 143 (2018).

¹⁹ See 25 U.S.C. § 476 (h)(1) ("each Indian tribe shall retain inherent sovereign power to adopt governing documents under procedures other than those specified in this section"); Indian Tribal Justice Act, Pub. L. No. 103-176, 107

United States law has deprived them of jurisdiction over their traditional lands and natural resources.²⁰ ANVs lack their own tax base ²¹ and often rely on external funding and consultants.²²

This article is based on dissertation research aiming to understand how ANVs are adapting to climate change and responding to disasters and how laws and planning processes help or hinder their efforts. My research involved multiple approaches, each of which I cover in more detail in a separate article.²³ The first approach was to review studies on adaptations to climate change, studies on Alaska Natives, and commentaries on relevant laws. The second approach was to review those relevant laws themselves.

The third approach involved 153 interviews and interviewlike conversations²⁴ with ANV residents and people outside of those communities who make or influence laws that affect them. I specifically sought participants from ANVs for whom national disaster declarations were made due to flooding within recent decades. Of the fifty-nine ANVs from which my participants were drawn, forty-two had been included in a state disaster declaration

2018)[https://perma.cc/KEY7-MRQ6].

Stat. 2004 (1993) (codified at 25 U.S.C. §§ 3601 et seq. (2010) ("Indian tribes possess the inherent authority to establish their own form of government, including tribal justice systems."); Delaware Indians v. Cherokee Nation, 193 U.S. 127 (1904) ("A tribe may determine who are to be considered members by written law, custom, intertribal agreement, or treaty with the United States."); Kimball v. Callahan, 590 F.2d 768, 777-78 (9th Cir. 1979) (inherent power to determine membership does not depend on having a territorial base, so even tribes with no Indian country may retain this power); John v. Baker, 982 P.2d 738 (Alaska 1999) (holding that ANCSA did not extinguish tribal sovereignty); Act of May 1, 1936, ch. 254, 49 Stat. 1250 (codified at 25 U.S.C. § 473a) (amending the Indian Reorganization Act of 1934 to include Alaska Natives). ²⁰ See 43 U.S.C. § 1603.

²¹ Alaska Division of Community and Regional Affairs, Community Database Online, DIVISION OF COMMUNITY AND REGIONAL AFFAIRS, <u>https://www.commerce.alaska.gov/dcra/DCRAExternal</u> (last visited Dec. 5,

²² Richard J. T. Klein et al., *Adaptation Opportunities, Constraints, and Limits, in* CLIMATE CHANGE 2014 IMPACTS, ADAPTATION, AND VULNERABILITY WORKING GROUP II CONTRIBUTION TO THE IPCC FIFTH ASSESSMENT REPORT, GLOBAL AND SECTORAL ASPECTS 907 (2014).

²³ E.B. Ristroph, *Presenting a Picture of Alaska Native Village Adaptation: A Method of Analysis*, 5 SOCIOLOGY & ANTHROPOLOGY 762 (2017).

²⁴ This were conversations where participants essentially answered the interview questions but did not want to be formally interviewed. Interviews and conversations took place between June 2016 and March 2016 in person in ANVs and at conferences pertaining to ANVs, or by phone calls from Fairbanks to participants' locations.

pertaining to a climate-related disaster during the study period, and thirty-six had been part of a national disaster declaration. Eighteen participants from ANVs that were the subjects of disaster declarations described the underlying events when interviewed.

The fourth approach was to analyze community plans relevant to the fifty-nine ANVs from which I selected participants, including hazard mitigation plans required by the Federal Emergency Management Agency (FEMA) for certain kinds of disaster assistance to be granted²⁵ and plans related to economic development and land use. I used qualitative content analysis²⁶ to identify major adaptation actions, relevant laws and agencies, facilitators, barriers, recommendations for change, and other themes emphasized in interviews, related conversations, and community plans.

The fifth approach involved a review of the State of Alaska's record of state-issued disaster declarations related to flooding and erosion from the initiation of state declarations under the Alaska Disaster Act (June 10, 1977) through the end of 2014.²⁷ The record indicates the nature of the disasters to which some of the declarations pertain, the communities or areas that were included in each disaster declaration, and indications as to which of these state declarations resulted in the issuance of a federal disaster declaration. I also reviewed FEMA's record of the federal disaster declarations that are noted in the state record.²⁸ There are far fewer federal declarations since these require a higher threshold than state declarations. FEMA's record indicated the underlying disaster for each declaration, the type of assistance issued, and the county or borough for which the declaration was issued.

This research was authorized by the Institutional Review Board of the University of Hawaii, and ethical considerations

²⁵ 42 U.S.C. § 5165(a).

²⁶ MATTHEW B. MILES & A. MICHAEL HUBERMAN, QUALITATIVE DATA ANALYSIS: AN EXPANDED SOURCEBOOK 56 (2d ed. 1994); JULIET CORBIN & ANSELM STRAUSS, BASICS OF QUALITATIVE RESEARCH: TECHNIQUES AND PROCEDURES FOR DEVELOPING GROUNDED THEORY (3d ed. 2007).

²⁷ Cavallo, *supra* note 3.

²⁸ FEMA, *FEMA Disaster Declarations Summary - Open Government Dataset*, DEPARTMENT OF HOMELAND SECURITY, https://www.fema.gov/media-library/assets/documents/28318 [https://perma.cc/W7HA-P7DD) (last visited Jan. 27, 2017].

required keeping confidential the identity of research participants. For this reason, the names of participants and ANVs are generally not mentioned in this article.²⁹

II. FRAMEWORK TO PREVENT AND RESPOND TO DISASTERS

I begin with a description of how an ANV can seek disaster assistance under the United States' and Alaska's laws. Understanding the legal system for disaster response is important because state and national assistance often come only after a disaster is officially declared at the federal level.³⁰ This section describes the declaration system and discusses the literature that critiques it.

A. How Disaster Declarations Work

The Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act)³¹ lays the groundwork for disaster relief and planning for natural disasters. It establishes the process for a Presidential (national) Disaster Declaration, which is required for many types of national disaster funding.³²

²⁹ The differences in the questions answered by different participants (despite starting with two questionnaires—one for each set of participants) limited the ability to quantitatively compare responses between different participants. Given this limitation and the subjectivity of my coding, I decided that using inferential statistics was not appropriate. *See* H. RUSSELL BERNARD & GERY W. RYAN, ANALYZING QUALITATIVE DATA: SYSTEMATIC APPROACHES (1st ed. 2009); Yan Zhang & Barbara M. Wildemuth, *Qualitative Analysis of Content*, 1 ANALYSIS 1 (2005). I thus avoid referring to specific numbers of participants in this article. To give an order of magnitude of the responses I got, I refer to "a few" (about 2 to 5), "several" (about 6 to 10), "a number of" (10-30), or "many" (more than 30). These categorizations are not statistically significant and should not be interpreted in that manner.

 ³⁰ Victor B. Flatt, *Domestic Disaster Preparedness and Response, in* THE LAW OF ADAPTATION TO CLIMATE CHANGE : U.S. AND INTERNATIONAL ASPECTS, 481-509 (Michael Gerrard & Katrina Fischer Kuh ed., 2012); Robin Bronen, *Climate-Induced Community Relocations: Creating an Adaptive Governance Framework Based in Human Rights Doctrine*, 35 NYU REV. L. & SOC. CHANGE 357, 401 (2011); U.S. GOV'T. ACCOUNTABILITY OFFICE (GAO), ALASKA NATIVE VILLAGES, LIMITED PROGRESS HAS BEEN MADE ON RELOCATING VILLAGES THREATENED BY FLOODING AND EROSION GAO-09-551, 43 (2009).
³¹ Stafford Act, Pub. L. No. 93-288 (1974), codified as amended at 42 U.S.C. §§ 5121-5206, as amended by § 322 of the Disaster Mitigation Act of 2000 (P.L. 106- 390), Katrina Emergency Management Reform Act of 2006, Pub. L. No. 109-295, 120 Stat. 1394 (codified as amended in scattered sections of U.S.C.).
³² 42 U.S.C. §§ 5122(1), 5191.

Before a presidential disaster can be declared, there must be a state or tribal disaster declaration.³³ Alaska's Disaster Act allows the state governor to declare a "disaster emergency" if a natural catastrophe or the outbreak of a disease causes or threatens to cause severe damage or loss of life.³⁴ A disaster must meet a certain threshold (which is dependent on the local community's resources) to garner a state declaration.³⁵ While ANVs, as federally recognized tribes, could directly ask the president for a disaster declaration without going through the State of Alaska, this process involves cost-sharing requirements that the entity seeking a presidential declaration must bear. ANVs and other federally recognized tribes located in remote areas are often severely economically disadvantaged and not in a position to assume these costs.³⁶

Once a state or tribal disaster declaration has been made, FEMA advises the President whether to declare a disaster.³⁷ In deciding what to recommend to the President, FEMA considers whether the disaster is beyond the capabilities of the affected state and local governments, such that federal assistance is necessary.³⁸ While there are criteria for how much funding a disaster merits, there are no clear criteria for whether a disaster is beyond the capacity of state and local governments.³⁹

Disasters addressed by the Stafford Act include hurricanes, tornados, storms, floods, tidal waves, tsunamis, earthquakes,

³⁸ 42 U.S.C. § 5170(a).

³³ 42 U.S.C. § 5170(b).

³⁴ Alaska Stat. §§ 26.23.020, 26.23.900(2).

³⁵ Alaska Division of Homeland Security & Emergency Management, Public Assistance Overview (2010), https://ready.alaska.gov/recovery/PublicAssistance (https://perma.cc/48SZ-LQ4D).

³⁶ Rachelle E. Luft, Governing Disaster: The Politics of Tribal Sovereignty in the Context of (Un)natural Disaster, 39 ETHN. RACIAL STUD. 802, 808 (2016). ³⁷ 44 C.F.R. § 206.37(c). Since the recommendations to the president are a

matter of executive privilege and not accessible for analysis, researchers have little insight into how this process actually works. John T. Gasper, *The Politics* of Denying Aid: An Analysis of Disaster Declaration Turndowns, 22 J PUB. MGMT. & SOC. POL'Y 7 (2015).

³⁹ Mary W. Downton & R.A. Pielke Jr., *Discretion Without Accountability: Politics, Flood Damage, and Climate*, 2 NAT. HAZARDS REV. 157, 158 (2001). FEMA's Sep. 1, 1999 rule (44 C.F.R. § 206.48 - Factors considered when evaluating a Governor's request for a major disaster declaration) only provides criteria in determining the need for public and individual assistance. A preliminary damage assessment (not mentioned in the Stafford Act), conducted jointly by FEMA and the requesting state, is an important part of this consideration. 44 C.F.R. § 206.33

volcanic eruptions, landslides, snowstorms, and droughts.⁴⁰ The exclusion of erosion from the definition of disaster is noteworthy since this slow-moving disaster plagues so many ANVs.⁴¹ Erosion is addressed through the national disaster regime only if it is sudden, such as when a storm occurs.⁴²

The exclusion of food-related disasters is also significant since these disasters can impact subsistence. ⁴³ Many ANVs depend on subsistence practices for their nutritional and cultural needs.⁴⁴ Given the high costs of flying commercial foods into remote villages that are off the road system, subsistence helps ensure food security.⁴⁵ In

⁴⁰ 42 U.S.C. § 5122.

⁴¹ GAO, *supra* note 30; U.S. ARMY CORPS OF ENGINEERS, ALASKA BASELINE EROSION ASSESSMENT, STUDY FINDINGS AND TECHNICAL REPORT (2009). ⁴² My search of national disaster declarations from the 1950s to 2014 revealed three instances mentioning erosion, including DR 1445 for "Severe Winter Storms, Flooding, and Coastal Erosion and Tidal Surge" in Alaska's Aleutian Islands in 2012.

⁴³ I use the State of Alaska's legal definition for subsistence: the noncommercial, customary and traditional uses of wild, renewable resources by a resident domiciled in a rural area of the state for direct personal of family consumption as food, shelter, fuel, clothing, tools, or transportation, for the making and selling of handicraft articles out of nonedible by-products of fish and wildlife resources taken for personal or family consumption, and for the customary trade, barter, or sharing for personal or family consumption.

Alaska Stat. § 16.05.940. This definition does not convey the significance of subsistence to many Alaska Natives, who value it as a fundamental part of their culture. E. Barrett Ristroph, *Alaska Tribes' Melting Subsistence Rights*, 1 ARIZ J ENVTL POL 49 (2010).

⁴⁴ Philip A. Loring et al., *Ways to Help and Ways to Hinder: Governance for Effective Adaptation to an Uncertain Climate*, 64 ARCTIC 73 (2011); Patricia Cochran, et al., *Indigenous Frameworks for Observing and Responding to Climate Change in Alaska*, 120 CLIMATIC CHANGE 557 (2013).

⁴⁵ Cochran, et al., *supra* note 44, at 560; Davin Holen, *Fishing for Community and Culture: The Value of Fisheries in Rural Alaska*, 50 NORTHERN FISHERIES 403 (2014); McNeeley, *supra* note 7. By "food security," I mean "a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life." *See* FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, THE STATE OF FOOD INSECURITY IN THE WORLD 2002 (2002), <u>http://www.fao.org/docrep/005/y7352e/y7352e00.htm</u> (https://perma.cc/VX5L-HDMH); Rachel Engler-Stringer, *Food Security,* ENCYCLOPEDIA OF QUALITY OF LIFE AND WELL-BEING RESEARCH, 2326–27 (Alex C. Michalos ed., 2014). In the context of ANVs, "preference" is particularly important since Western foods may be culturally unacceptable. *See* Mark Nuttall et al., *Hunting, Herding, Fishing and Gathering: Indigenous Peoples and Renewable Resource Use in the Arctic,* ARCTIC CLIMATE IMPACT ASSESSMENT 654, 649-690 (2005). Also important is the "active and healthy

addition, subsistence enables families to spend time together and pass down knowledge and values.⁴⁶ There is no law providing specifically for the kind of disaster that occurs when ANV residents are not able to conduct their annual harvest of an important subsistence species. Federal⁴⁷ and state⁴⁸ laws do allow for "economic disasters" to be declared through the federal and state commerce departments,⁴⁹ but these do not necessarily cover subsistence.

As I noted above, a Presidential Disaster Declaration is important because of the relief that comes with it—funding, agency support, and even relocation.⁵⁰ Once a national disaster is declared, FEMA utilizes the incident command system to coordinate the response with other agencies (and in some cases, the military). It provides public assistance⁵¹ to support government and nongovernment entities and individual assistance for housing and other expenses.⁵² Payouts for disasters can be substantial. Congress provided roughly \$120 billion for Hurricane Katrina and \$60 billion for Hurricane Sandy recovery efforts.⁵³ Nearly \$6.9 million in

life" component, since subsistence supports an active and healthy lifeway Aaron Wernham, *Inupiat Health and Proposed Alaskan Oil Development: Results of the First Integrated Health Impact Assessment/Environmental Impact Statement for Proposed Oil Development on Alaska's North Slope*, 4 ECOHEALTH 514 (2007).

⁴⁶Michael Hibbard & Robert Adkins, *Culture and Economy: The Cruel Choice Revisited*, RECLAIMING INDIGENOUS PLANNING, 94-112 (Ryan Walker,

Theodore S Jojola, & David C. Natcher eds., 2013); Jonathan M. Hanna, *Native Communities and Climate Change: Protecting Tribal Resources as Part of National Climate Policy: Report*, 11 (2007),

http://scholar.law.colorado.edu/cgi/viewcontent.cgi?article=1014&context=book s_reports_studies (https://perma.cc/ACF4-NAB8); Nuttall et al., *supra* note 45, at 654; Holen, *supra* note 45.

⁴⁷Magnuson-Stevens Fisheries and Conservation Act, Pub. L. No. 94-265 (1996), §§ 312, 315, codified as amended at 16 U.S.C. §§ 1861a, 1864; Interjurisdictional Fisheries Act, Title III of Public Law 99–659 100 Stat. 3731(1986).

⁴⁸ Alaska Stat. §§ 44.33.285, 44.33.310.

⁴⁹ National disasters have been declared due to poor fisheries, typically related to hurricanes, floods, changes in ocean conditions, or algal blooms. HAROLD F. UPTON, COMMERCIAL FISHERY DISASTER ASSISTANCE, 6 (2011).

⁵⁰ 42 U.S.C. §§ 5170b(b), 5172(b), 5173(d).

⁵¹ 42 U.S.C. § 5172; 44 C.F.R. § 206 Parts G-I.

⁵² 42 U.S.C. § 5174; 44 C.F.R. § 206 Parts E-F.

⁵³ Bruce R. Lindsay, "FEMA's Disaster Relief Fund: Overview and Selected Issues" (Congressional Research Service, May 7, 2014),

https://www.fas.org/sgp/crs/homesec/R43537.pdf (https://perma.cc/P2G6-GRKK).

individual assistance was provided after an Interior Alaska riverine flooding disaster in 2009.⁵⁴ While it is not clear whether postdisaster funding is sufficient to revive pre-disaster economies, ⁵⁵ this source of funding could be significant for a small, rural, and remote ANV with a limited basis for generating revenue.⁵⁶ It is especially important for communities hoping to relocate; post-disaster assistance enabled the community relocations of Alatna and Eagle Village.

In the absence of a Presidential Disaster Declaration, a community may still get assistance from the State of Alaska, though the amount is likely to be much smaller.⁵⁷ Unless the state legislature approves a higher amount, the governor can provide up to \$500,000 to avoid an impending disaster or \$1 million to respond to a state disaster declaration.⁵⁸

A great deal of research has noted the lack of any correlation between the issuance of disaster declarations and the amount of damage incurred by disaster-struck communities, which suggests that the issuance of disaster declarations relates more to politics than it does to the vulnerability of communities.⁵⁹ This may lead to unjust consequences for ANVs that often lack political connections.

⁵⁴ FEMA, Nearly \$6.9 Million in Spring Floods/Ice Jam Recovery Funds for Individuals, Release Number: 1843-015, News Releases for Alaska Flooding and Ice Jams (DR-1843) (Sep.18, 2009), <u>https://www.fema.gov/newsrelease/2009/09/18/nearly-69-million-spring-floods/ice-jam-recovery-fundsindividuals (https://perma.cc/9TNP-QONW)</u>

individuals (https://perma.cc/9TNP-QQNW). ⁵⁵ Makena Coffman and Ilan Noy, *Hurricane Iniki: Measuring the Long-Term Economic Impact of a Natural Disaster Using Synthetic Control*, 17 ENVT. & DEV. ECON. 187 (2012).

⁵⁶ Hyun Kim and David Marcouiller, *Considering Disaster Vulnerability and Resiliency: The Case of Hurricane Effects on Tourism-Based Economies*, 54 *ANNALS OF REGIONAL SCI*. 945 (2015).

⁵⁷ Alaska Stat. § 26.23.020.

⁵⁸ Alaska Stat. § 26.23.020.

⁵⁹ E.g., Susan Cutter and Christopher Emrich, Are Natural Hazards and Disaster Losses in the U.S. Increasing?, 86 EOS, TRANSACTIONS AMERICAN GEOPHYSICAL UNION 381 (2005); Susan L. Cutter, Bryan J. Boruff, and W. Lynn Shirley, Social Vulnerability to Environmental Hazards, 84 SOC. SCI. QUARTERLY 242, 256 (2003); R. Steven Daniels, The Rise of Politics and the Decline of Vulnerability as Criteria in Disaster Decisions of the United States, 1953-2009, 37 DISASTERS 669, 689 (2013); Downton & Pielke, supra note 39 at 163; Thomas A. Garrett, and Russell S. Sobel, The Political Economy of FEMA Disaster Payments, 41 ECON. INQUIRY 496, 508 (2003); Gasper, supra note 37; Andrew Reeves, Political Disaster: Unilateral Powers, Electoral Incentives, and Presidential Disaster Declarations, 73 J POLITICS 1142, 1147 (2011); Mathew C. Schmidtlein, Christina Finch, and Susan L. Cutter, Disaster

B. Efforts to Address Disasters Before They Happen

In the previous section, I talked about the billions of dollars that are spent attempting to restore disaster-stricken communities. In this section, I will talk about the far smaller amount of money spent in the arena of "hazard mitigation," which seeks to reduce the risk of disasters related to climate change as well as other natural hazards. There is a lack of proactive spending despite a general agreement by experts that money spent on hazard mitigation yields benefits that well exceed the costs.⁶⁰

FEMA has several hazard mitigation programs that provide for disaster mitigation, preparation, and recovery, including the Hazard Mitigation Grant Program (HMGP), the Pre-Disaster Mitigation Program (PDM), and Flood Mitigation Assistance (FMA).⁶¹ FEMA allows a state or tribe that has received a disaster declaration in the last year to apply for HMGP funding, which the recipient can regrant to localities (or tribes that choose to be "sub-applicants") to reduce their hazard risks.⁶² Rather than providing states with a set, consistent amount of funding, HMGP funds are calculated as a percentage of payouts made through the last disaster declaration.⁶³

FEMA's PDM⁶⁴ provides for projects similar to those covered by HMGP. For PDM, there need not have been a disaster declaration, and the amount of funding available is far less

Declarations and Major Hazard Occurrences in the United States, 60 PROF. GEOGRAPHER 1, 13 (2008).

⁶⁰ Adam Rose et al., Benefit-Cost Analysis of FEMA Hazard Mitigation Grants, 8 NAT. HAZ. REV. 97 (2007); David R. Godschalk et al., Estimating the Value of Foresight: Aggregate Analysis of Natural Hazard Mitigation Benefits and Costs, 52 J ENVTL PLANNING & MNGMT 739 (Sep. 2009); John C. Whitehead and Adam Z. Rose, Estimating Environmental Benefits of Natural Hazard Mitigation with Data Transfer: Results from a Benefit-Cost Analysis of Federal Emergency Management Agency Hazard Mitigation Grants, 14 MITIGATION AND ADAPTATION STRATEGIES FOR GLOBAL CHANGE 655 (Oct. 2009); Tim G. Frazier et al., Opportunities and Constraints to Hazard Mitigation Planning, 40 APPLIED GEOGRAPHY 52 (June 2013).

⁶¹ GAO, High-Risk Series, An Update, GAO-15-290 87 (2015).

 ⁶² 42 U.S.C. § 5170c; 44 C.F.R. §§ 201.7, 206.2(a) (16), 206.434(a), 206.436.
⁶³ 42 U.S.C. § 5170c(a); 44 C.F.R. § 206.432; FEMA, *Hazard Mitigation* Assistance Program Digest, 41, 48, 53 (2015), https://www.fema.gov/media-

Assistance Program Digest, 41, 48, 53 (2015), <u>https://www.rema.gov/media-</u> library-data/1444240033001-518cdc8d447ef79a1360763e3145d17e/HMA Program Digest 508.pdf

<u>518cdc8d44/ef/9a1360/63e3145d1/e/HMA_Program_Digest_508.pdf</u> (https://perma.cc/H5BY-TP3W).

⁶⁴ 42 U.S.C. § 5133.

(whatever Congress chooses to allocate to the program that year).⁶⁵ The third program, FEMA's FMA provides funds to states, territories, tribes, and local governments to prepare flood mitigation plans and carry out mitigation projects. FMA requires communities to participate in the National Flood Insurance Program (NFIP).⁶⁶

ANVs face several challenges to getting funding through the programs mentioned above. First, to obtain funding to carry out projects through HMGP or PDM, the ANV needs to have an existing hazard mitigation plan.⁶⁷ The creation of this plan is highly complex, and most ANVs that were able to produce these plans hired consultants to write them. Second, few, if any, ANVs are eligible for FMA because they are not eligible for NFIP. This relates to the fact that ANV tribal governments lack the jurisdiction over land that they must have in order to establish the flooding ordinances that are required for participation in NFIP.⁶⁸

Third, measures for which FEMA provides funding must be "cost-effective" or in the interest of NFIP.⁶⁹ The challenge is that some benefits are not easily quantified (i.e., cultural values, mental health, and ecosystem services), and FEMA has a limited tolerance for unconventional calculation methods.⁷⁰ This, along with the expenses associated with projects in remote ANVs, ⁷¹ impairs the ability of ANVs to get funding for measures that can benefit their communities and lifeways. Elizabeth Marino, an expert on disaster relief funding, points out the injustice of FEMA's cost-effective standards for housing buyouts, noting that they focus on the value

878c470e718239eedcaadc8d52ea1823/PDMFactSheetFY2015.pdf

⁶⁵ 2 U.S.C. § 5133(c); FEMA, FY 2015 Pre-Disaster Mitigation Grant Program Fact Sheet (May 2015), <u>http://www.fema.gov/media-library-</u> data/1432847398289-

⁽https://perma.cc/ZD65-SCRW).

⁶⁶ 42 U.S.C. § 4104c;

⁶⁷ 42 U.S.C. § 5165(a).

⁶⁸ See 44 C.F.R. § 59.1, definition of community.

⁶⁹ 44 C.F.R. §§ 79.6(d), 206.434(c); FEMA, Hazard Mitigation Assistance Unified Guidance, Hazard Mitigation Grant Program, Pre-Disaster Mitigation Program, and Flood Mitigation Assistance Program, 31 (2013), <u>https://www.fema.gov/media-library-data/1424983165449-</u> <u>38f5dfc69c0bd4ea8a161e8bb7b79553/HMA Guidance 022715 508.pdf</u>

⁽https://perma.cc/Q9WB-44YT).

⁷⁰ FEMA, *supra* note 69, at 50.

⁷¹ GAO, *supra* note 30.

of the property rather than the protection of displaced peoples.⁷² Properties that have a lower market value (even if they would be very expensive to rebuild in remote ANVs) may be less able to garner buyouts.⁷³

The Disaster Reform Act of 2018 did little to improve the predisaster funding situation for ANVs.⁷⁴ For example, Section 1234 of that Act amends 42 U.S.C. § 5133(f) to clarify that PDM awards must be cost-effective.⁷⁵ Although this is already a FEMA requirement, it may increase the burden on remote ANVs that try to get their projects funded. Further, Section 1234 narrows eligibility for PDM in a manner similar to HMGP, so only state or tribes that have had disaster declarations in the last seven years can get PDM. ⁷⁶ This could reduce the incentive for states to prepare for climate change related disasters. Finally, Section 1234 allows FEMA to set aside from the Disaster Relief Fund (to which Congress chooses to add money after disasters) funds used on various post-disaster programs.⁷⁷ This money can go to technical and financial assistance under PDM. This may be helpful in the sense that it makes more funding available for grants, given that PDM is currently quite small compared to HMGP. Yet it carries forward the arbitrary notion of tying together hazard mitigation funding with how much was spent on a disaster declaration-a declaration which may or may not relate to a community's vulnerability to disaster.

Obstacles to getting FEMA assistance are noteworthy because FEMA plays the primary role in disaster response and preparedness in the United States. Still, other agencies with infrastructure-planning responsibilities do have roles in reducing disaster risk. Among the most important is the Department of Housing and Urban Development (HUD), which provides flexible funding to communities and tribes for infrastructure through the Community Development Block Grant Program (CDBG) and the Indian Development Grant Program. Funding specific to disaster

⁷² Elizabeth Marino, *Adaptation privilege and Voluntary Buyouts: Perspectives on ethnocentrism in sea level rise relocation and retreat policies in the U.S.*, 49 GLOB. ENVTL. CHANGE 10, 10 (2018).

⁷³ GAO, *supra* note 30, at 38.

⁷⁴ Pub. L. No. 115-254 (Oct. 5, 2018).

⁷⁵ Id.

⁷⁶ Id.

⁷⁷ Id.

relief is available through the CDBG Disaster Recovery program, which extends recovery funding beyond what FEMA provides.⁷⁸ But this assistance is available only after a national disaster declaration, only to urban municipalities, and only such a quantity as Congress decides to provide in a post-disaster appropriation act.⁷⁹

C. Previous Research Relevant to Disasters Affecting ANVs

Other than articles calling for government assistance with community relocation, there is little literature specific to climate-related disasters in Alaska.⁸⁰ Various authors have, however, written about the physical and sociological impacts of and responses to the Exxon-Valdez oil spill.⁸¹ While they may not help a community navigate the legal and funding systems for getting natural disaster assistance, lessons from this oil spill could be instructive in terms of resilience to climate change and impacts to subsistence resources.

One point that emerges from the articles written in response to the Exxon-Valdez spill is that Alaska Natives may have different processes than non-Natives for understanding, coping with, and responding to disasters.⁸² There is a need for responses that address

⁷⁸ 42 U.S.C. §5306(c).

⁷⁹ 42 U.S.C. §5306(c)(4).

⁸⁰ Bronen, *supra* note 15; Julie Koppel Maldonado et al., *The Impact of Climate* Change on Tribal Communities in the US: Displacement, Relocation, and Human Rights, 120 CLIMATIC CHANGE 601 (Oct. 2013); Marino, supra note 6; Christine Shearer, The Political Ecology of Climate Adaptation Assistance: Alaska Natives, Displacement, and Relocation, 19 J. POL. ECOLOGY. 174 (2012). ⁸¹ Duane A. Gill, J. Steven Picou, and Liesel A. Ritchie, 56 The Exxon Valdez and BP Oil Spills, AMERICAN BEHAVIORAL SCIENTIST 3 (2012); Liesel Ashley Ritchie and Duane A. Gill, Social Capital Theory as an Integrating Theoretical Framework in Technological Disaster Research, 27 SOCIOLOGICAL SPECTRUM 103 (Jan. 2007); Liesel Ashley Ritchie and Duane A. Gill, Fostering Resiliency in Renewable Resource Communities Subsistence Lifescapes and Social Capital, HOW ETHNICALLY MARGINALIZED AMERICANS COPE WITH CATASTROPHIC DISASTERS, at 51-82; Ruth E. Cohn, The Role of Emotion in Organizational Response to a Disaster: An Ethnographic Analysis of Videotapes of the Exxon Valdez Accident, Natural Hazard Research Working Paper 74, Natural Hazards Research and Applications Information Center, Institute of Behavioral Science, University of Colorado (1992); Catalina M. Arata et al., Coping with Technological Disaster: An Application of the Conservation of Resources Model to the Exxon Valdez Oil Spill, 13 J TRAUMATIC STRESS 23 (2000). ⁸² Cohn, supra, note 81; J. Steven Picou, The 'Talking Circle' as Sociological Practice: Cultural Transformation of Chronic Disaster Impacts, 2 SOCIOLOGICAL PRACTICE 77 (2000); Christopher L. Dyer, Tradition Loss as

the particular concerns of Alaska Natives that both relate to their subsistence lifeways and cultural practices and contribute to healing.⁸³ At worst, disaster responses that invalidate tribal concerns and fail to acknowledge tribal sovereignty can contribute to what some scholars see as the ongoing "permanent disaster" of colonization.⁸⁴

In sum, there is a robust top-down framework at the national level for responding to fast-moving natural disasters. There are substantially fewer resources available to help communities prepare for and prevent disasters. This is particularly problematic for slowmoving disasters in Alaska related to climate change—specifically permafrost melt and erosion. It is also problematic for communities like ANVs that face challenges related to their eligibility for and access to resources needed for disaster management. While much research has been conducted on the need for assistance to ANVs facing climate change-related disasters, there is a lack of research on how the national disaster declaration system has affected ANVs who have received disaster assistance. Likewise, outside of the national framework there is a lack of research on how ANVs might better prepare for disasters on their own.

III. KEY FINDINGS

A. Overview of Disaster Declarations in Alaska

State disaster declaration records provide some insight on the nature of climate-related⁸⁵ disasters in Alaska. Between 1977

Secondary Disaster: Long- term Cultural Impacts of the Exxon Valdez Oil Spill, 13 SOCIOLOGICAL SPECTRUM 65 (1993); L. A. Palinkas et al., Community Patterns of Psychiatric Disorders after the Exxon Valdez Oil Spill, 150 AM. J PSYCHIATRY 1517 (1993).

⁸³ Picou, supra note 82; Dyer, supra note 82; James C. Hagen, Emergency Management Structure for Use in the Alaska Native Elderly Population, 5 INT. J. EMERGENCY MNGMT. 275 (2008); Robert S. Newsad, An Overview of Developing Tribal Emergency Management in the USA, 7 INT. J. EMERGENCY MNGMT. 296, 297 (2010).

⁸⁴ Luft, *supra* note 36, at 804.

⁸⁵ Here, climate-related disasters are those related to heavy rains, storms, flooding, and sudden erosion. As I discuss in this chapter, the gradual erosion that a number of ANVs are experiencing is not considered a disaster for purposes of state and national disaster declarations.

and 2019, there were 155 communities⁸⁶ with state disaster declarations and 220 state disaster declarations in total.⁸⁷ The Governor of Alaska requested a Presidential Disaster Declaration for approximately eighteen of these disasters; the request was denied on eight occasions and granted on ten other occasions.⁸⁸

There were thirty-seven sea storms, surges, and flooding disasters (17% of all disasters); twelve rain and flooding disasters (5% of all disasters); eighty-seven ice jams and flooding disasters (40% of all disasters); ten erosion and flooding disasters (5% of all disasters); twenty-four storms and flooding disasters (11% of all disasters); and fifty other flooding disasters (23% of all disasters).⁸⁹

Although some ANVs that are vulnerable to flooding and erosion have been able to obtain disaster relief and even to relocate, many have not. For example, the Native Village of Alaknuk obtained eight state and five national disaster declarations (and associated funding) related to flooding between 1977 and 2014.90 But Shishmaref, often cited as one of the villages that is most vulnerable to climate change-related flooding and erosion,⁹¹ received only one state disaster declaration during this same period. Thus, there may be inconsistencies between ANVs that are most vulnerable to climate change and flooding and those that are receiving disaster assistance.

⁸⁶ Here, this term includes ANVs and similarly size non-Native communities. It excludes Alaska's major urban areas in and near Anchorage, Fairbanks and Juneau. -- Open Government Dataset, at https://www.fema.gov/medialibrary/assets/documents/28318 (Last Updated: Mar. 18, 2019)

⁸⁷ Id.

⁸⁸ Id.

⁸⁹ *Id*. ⁹⁰ *Id*.

⁹¹ See Elizabeth Marino, Fierce Climate, Sacred Ground: An ETHNOGRAPHY OF CLIMATE CHANGE IN SHISHMAREF, ALASKA (2015); U.S. Gov't. Accountability Office (GAO), GAO-09-551, Alaska Native Villages, Limited Progress Has Been Made on Relocating Villages Threatened by Flooding and Erosion 1(2009); Victoria Herrmann, Alaskan Villages Imperiled by Global Warming Need Resources to Relocate; Climate Change Rendering Coastlines Uninhabitable Is Starkest in the Arctic, but Places like New Jersey and California Will Soon Be at Risk Too. THE GUARDIAN (Jul 27, 2015) https://www.theguardian.com/commentisfree/2015/jul/27/alaska-globalwarming-relocation. https://perma.cc/K37P-6GJJ

1. Limited Preparation at the Local Level

At a local level, many ANVs seem ready to face short-term emergencies but have limited infrastructure to do so and little experience related to what happens once a serious, fast-moving disaster strikes. While many community plans mention past disasters⁹² and have strategies relevant to emergencies,⁹³ I did not find any stand-alone disaster prevention and response plans similar to what exists for some larger communities in the continental United States.⁹⁴ Instead, a number of participants referred to Small Community Emergency Response Plans. These are short, easily accessible flipbooks based on a state-designed template that provide information on emergency contacts, places in the community where residents can take shelter, and ways to evacuate. They can provide guidance in the event of a disaster but do not look beyond the initial disaster to the recovery period.

There may be a disconnect between the emergency preparation measures mentioned in community plans and what ANV residents are actually prepared to do. For example, local hazard mitigation plans for thirty-three ANVs and four other plans listed specific emergency preparedness measures such as emergency drills, evacuation alerts, and storm warnings, but none of my participants gave any indication that these measures were being implemented. Further, a number of plans and ANV community members proposed an evacuation road, which may not be feasible. As participants outside ANVs pointed out, the funds for a road and

⁹² Local hazard mitigation plans are required to do "include information on previous occurrences of hazard events." 44 C.F.R. §201.6 (c)(2)(i).

⁹³ For example, several plans referred to purchasing supplies that might to be used during storms such as generators and family emergency kits, and a few ANV participants referred to storing emergency supplies and being ready to use sandbags. These strategies are relatively feasible to carry out for small communities.

⁹⁴ For example, many communities in Washington State have disaster plans pursuant to state law, RCW 38.52.070, which requires each political subdivision of the state to establish a local organization or to be a member of a joint local organization for emergency management. Seattle, Washington has a Disaster Readiness and Response Plan. Seattle Office of Emergency Management, Disaster Readiness and Response Plan (2012),

http://www.seattle.gov/Documents/Departments/Emergency/PlansOEM/SDRRP/ /Final%20SDRRP%20V11-13-12.pdf. https://perma.cc/X9LZ-JZ6Z

the availability of gravel for its construction be challenging to obtain, and the construction would require more gravel as the road would need to be significantly elevated to avoid storm surge. A few participants suggested that a gravel mound within the village would be a more cost-effective way to protect from storm surge, given that much less gravel would be required for a mound than for a road. But, as of yet, ANVs facing storm surges have not been able to construct a gravel mound, much less an evacuation road.

2. Limited Support at the National Level

My interviews also revealed a sense of frustration on account of state and national funding for disaster prevention being relatively limited in comparison to response funding and the fact that relatively little is being done to address slow-moving disasters such as erosion and permafrost melt. Several participants recommended amending the Stafford Act to include erosion and climate change in the definition of disaster. Yet many were pessimistic about prospects for change. One ANV participant said, "It kind of feels like we don't really know how to move forward other than just acknowledging that we need to prepare."⁹⁵ A few participants expressed the view that it would take a disaster that affected middle-class Americans to get more substantial funding to address climate-related disasters. As one ANV participant said:

"Since 1954, we've lost over a quarter of a mile [of land]. This year we're going to lose our water supply. We already lost our dump. . . . When a hurricane comes to Florida, they immediately issue a disaster declaration. But this one has been waiting for ten years, fifteen years. We know it's happening. We lose about seventy-five feet a year."⁹⁶

Some participants from the federal government believed an amendment to the Stafford Act that would allow related funding to be utilized in combatting erosion was not likely to be made, for they believe that Congress is unwilling to allocate the money that would

⁹⁵ Telephone Interview with Participant No. 35, female tribal employee from west coast of Alaska (Oct. 11, 2016).

⁹⁶ Telephone Interview with Participant No. 12, male tribal employee from west coast of Alaska (Feb. 24, 2017).

be needed to address all the resultant disaster declarations that would be made by ANVs and similarly situated communities. One FEMA employee explained that the Stafford Act is simply not designed to address climate change.⁹⁷

Views on barriers to disaster prevention parallel views on barriers to address climate change more generally: Many participants referred to a lack of political willingness to address climate change and a tendency to be reactive rather than proactive. A former member of the Alaska legislature said, "We don't plan enough and then we react badly."⁹⁸ A Native non-profit entity leader said, "There's a system, and the problem is [that] unless it's broken, it doesn't get done."⁹⁹ A supporter of an ANV seeking to relocate said, "If you knew that a village was going to be destroyed, what would you do? Go to international conferences, write papers, and get PhDs? The reality is that nobody . . . is spending any money to assist climate endangered indigenous communities. . . . There are villages being destroyed today."¹⁰⁰

3. Little Local Control when Disaster Strikes

a. An Unclear and Inefficient Process

Other than participants who had sought or received national disaster declarations, few were familiar with the process. Participants who had been through national disaster declarations emphasized how important it is for ANVs to understand the disaster management process so that a community can articulate its needs to FEMA. The flooding disaster in Interior Alaska in 1994 illustrates the importance of understanding the post-disaster process. A participant who worked with ANVs following the flood described how the Village of Alatna, which is located in a boreal forest in the middle of Arctic Alaska, was able to use the process to relocate its

⁹⁷ Telehphone Interview with Participant No. 152, female FEMA employee from Anchorage, Alaska (July 8, 2016).

⁹⁸ Telephone Interview with Participant No. 117, male from northwest coast of Alaska (Aug, 13, 2016).

⁹⁹ Telephone Interview with Participant No. 87, male director of a division of a Native-non-profit entity in Anchorage, Alaska (July 12, 2016).

¹⁰⁰ Telephone Interview with Participant No. 153, male in private law practice in Fairbanks, Alaska Feb. 23, 2017).

small community to higher ground.¹⁰¹ Alatna had simple, clear demands—residents wanted decent log cabins on a nearby hill out of the floodplain.¹⁰² Alatna was able to negotiate a timeframe of one year for rebuilding the community rather than the normal timeframe of three years.¹⁰³ Alatna chose to forego emergency funding for temporary housing structures in the village to increase its investment in long-term housing solutions.¹⁰⁴ More than one participant suggested that the Village of Allakaket (located across the river from Alatna) did not have a clear plan, so its money was spent on more peripheral needs like snow machines rather than permanent homes. Residents opted for temporary houses to be built in the same floodplain where many have remained for decades.¹⁰⁵

A participant from another ANV described a lack of clarity among community members/leadership regarding the community's options after a disaster, which made negotiations difficult: "Nobody understood that if you don't ask, you're not going to get anything. . . . If you say no to something you need, there's no turning back, even five minutes later. If you say 'no' once, that's it. There's still cleanup that hasn't happened because of that."¹⁰⁶

A few participants suggested that FEMA assistance was inefficient or not very helpful to the community. One ANV resident offered the following description of FEMA assistance:

> "For the first three weeks, almost a month . . . they had a Learjet that came in at 9:00 or 10:00 in the morning and sat there all day. . . . They drove around all day and took pictures of themselves and the damage. . . . They flew in twenty-four ATVs, top of the line, \$30,000 each, so they could all ride around town . . . then around four o'clock they jump in the Learjet and they go back to wherever they

¹⁰¹ Telephone Interview with Participant No. 46, female from interior Alaska village (Aug. 4, 2016).

 $^{^{102}}$ Id.

 $^{^{103}}$ Kelley Hegarty & Associates, Alatna Comprehensive Plan 47 (1995) (on file with the author).

 $^{^{104}}$ *Id*.

¹⁰⁵ KELLEY HEGARTY & ASSOCIATES, ALLAKAKET COMPREHENSIVE PLAN 22 (1995) (on file with the author).

¹⁰⁶ Telephone Interview with Participant No. 31, male tribal citizen from Interior Alaska (Jan. 1, 2017).

come from. Come to find out, this ended up costing about \$11 million. . . . To this day, our water plant is still flooding. It was never cleaned up."¹⁰⁷

The resident suggested that FEMA missed the opportunity to have local residents participate in in disaster recovery by training local residents to take photographs themselves.¹⁰⁸

A FEMA representative offered a different view of the recovery processes, noting that when a certain ANV flooded, FEMA gave each household a choice of having FEMA entirely repair the home or receive a grant to rebuild it themselves.¹⁰⁹ The families that took the home repair grant never completed their homes and left the village, whereas the other families who had FEMA help are back in the village. The representative suggested that this related to villages not being fully immersed in a cash economy—when households got handed a large chunk of money, they were not fully thinking through the best uses of such funds.¹¹⁰

The disparate views of the recovery process between the ANV residents and FEMA may relate to different ways of handling disasters in different ANVs. They may also relate to different perceptions of FEMA's roles and responsibilities versus those of the community and its individual residents.

b. Perception of Unfairness

Although it may be impossible to design a recovery process that is completely fair to all ANV residents, it is important for FEMA to aim for fairness. Problematically, a few participants from ANVs who experienced disaster declarations said that FEMA funding was unfairly distributed between similarly situated communities or individuals within those communities. One participant said that because he had not agreed to have FEMA buy out (and then destroy) his flooded home, FEMA would not help him with anything else,

¹⁰⁷ Telephone Interview with Participant No. 31, male tribal citizen from Interior Alaska (Jan. 1, 2017).

¹⁰⁸ Telephone Interview with Participant No. 31, male tribal citizen from Interior Alaska (Jan. 1, 2017).

¹⁰⁹ Telephone Interview with Participant No. 152, female FEMA employee from Anchorage, Alaska (July 8, 2016).

¹¹⁰ Telephone Interview with Participant No. 152, female FEMA employee from Anchorage, Alaska (July 8, 2016).

even food. After refusing the buyout, he was not allowed to take any emergency food supplies from FEMA.¹¹¹

A participant from another ANV said that there was a disparity between the way FEMA treated her as a tribal leader and the way FEMA treated non-tribal municipal leaders during disaster recovery.¹¹² The tribal leader said that FEMA personnel threatened her and pointed out multiple times that she would go to jail if she lied and that they did not treat the city mayor the same way. Further, there was confusion and conflict regarding FEMA's purchase of flooded houses. Some people got to keep their houses that got flooded out, while others were told that if they took the purchase money, they could not have any part of their old houses.¹¹³ It seemed to the tribal leader that a disproportional number of non-Natives got to keep their houses even though they received buyout money.¹¹⁴ Some of the conflict and confusion may relate to the legal residency requirements for buyouts.¹¹⁵ These laws are not designed to address the situation that a number of ANV citizens find themselves in: They live in urban areas for employment or health reasons but consider their house within an ANV to be their primary home. A participant from the same ANV described his frustration over FEMAs refusal to buyout the cabin of his mother, who lived in the ANV seven to nine months of the year.¹¹⁶

c. Failure to Provide for Subsistence

A few participants noted that FEMA generally does not provide funding for subsistence food or damage to subsistence

¹¹¹ Telephone Interview with Participant No. 31, male tribal citizen from Interior Alaska (Jan. 1, 2017).

¹¹² Interview with Participant No. 58, female tribal citizen from Interior Alaska, in Fairbanks, Alaska (Feb. 28, 2017).

¹¹³ Under FEMA buyout programs, the purchased property is generally required to be maintained as open space in perpetuity to restore and/or conserve the natural floodplain functions. 42 U.S.C. §5170c(b)(2); 44 C.F.R. §80.11(f).

¹¹⁴ Interview with Participant No. 58, female tribal citizen from Interior Alaska, in Fairbanks, Alaska (Feb. 28, 2017).

¹¹⁵ FEMA's post-disaster individual assistance program, which pays to buy out damaged homes, only applies to homes that serve as a primary residence. 42 U.S.C. § 5174(b)(1). Under 44 C.F.R. § 206.113(b)(2), those "who have adequate rent-free housing accommodations" are ineligible for housing assistance.

¹¹⁶ Telephone Interview with Participant No. 57, male tribal citizen from Interior Alaska (Jan. 15, 2015).

equipment. In the words of the FEMA representative, "FEMA doesn't do food."¹¹⁷ One participant from an ANV showed me photos of a subsistence camp destroyed by ice during a storm and asked why FEMA did not give disaster funding to subsistence infrastructure. Not only is subsistence economically important for ANV residents, he said, it is important to preserving the culture: "Fish in the freezer is like money in the bank. Fish camp is a vehicle to provide food. Subsistence is a job."¹¹⁸

To summarize, when representatives of the national government enter into an ANV and employ a top-down command system to respond to disasters, it is effective in providing immediate relief in terms of physical needs. But it can seem unfair, inconsiderate, and even colonizing to local residents who do not understand the process and do not feel fully involved in the recovery.

IV. DISCUSSION AND RECOMMENDATIONS

While some ANV participants and plans have called for more robust measures to prepare for and prevent disasters, funding for large-scale infrastructure and relocation generally comes only after a disaster declaration. ANVs have relatively few means for responding to disasters other than basic emergency plans and supplies that meet needs during and immediately after disasters. Aside from Newtok Village, which is engaged in a gradual relocation to Mertarvik, there is a lack of formal planning at the community, state, and national levels regarding what ANV residents will do and where they will go when a disaster strikes, and homes become uninhabitable. In recent times, this lack of consideration has resulted in hasty, top-down post-disaster management that has left some ANV residents feeling unfairly treated. In this section, I discuss some measures that might improve pre- and post-disaster management.

¹¹⁷ Telephone Interview with Participant No. 152, female FEMA employee from Anchorage, Alaska (Jul. 8, 2016).

¹¹⁸ Interview with Participant No. 23, male tribal citizen from the west coast of Alaska, in Nome, Alaska (Jan. 23, 2017).

A. Potential for Amending the Stafford Act

Among my participants, there have been calls to amend the Stafford Act¹¹⁹ so that it is more proactive and inclusive of slow-moving disasters, such as gradual erosion and permafrost melt. Hazards related to climate change that are currently excluded from the definition of "disaster" (i.e., "erosion" and "permafrost melt") could be added. A similar change could be made to the state's disaster declaration process, which mirrors the federal process.¹²⁰

However, such an amendment, without any further action on the part of Congress or FEMA, does not guarantee that badly eroding ANVs would get disaster assistance. The literature has demonstrated that disaster declarations can be politically motivated, such that those with better political connections and understanding of the system would be in a better position to get disaster declarations than impoverished ANVs.¹²¹ To address this, FEMA has sufficient discretion under the Stafford Act¹²² to issue additional criteria for who is eligible to receive disaster declarations similar to how it has issued criteria for determining the need for public and individual assistance.¹²³ There could be some sort of sliding scale based on monetary damage thresholds (i.e., how much damage there must be to rise to the level of a disaster) based on median incomes in the affected regions. Declarations based solely on such a sliding scale could negatively affect communities with below-average per capita incomes in relatively wealthy states that choose not to spend their own money.¹²⁴ To avoid this impact, there could be an exception for declarations involving communities below a certain income threshold. There could also be other "vulnerability" factors

¹¹⁹ 42 U.S.C. § 5122.

¹²⁰ The state legislature could amend the Alaska Disaster Act to specifically include erosion and permafrost in the disaster declaration definition and to more clearly delineate thresholds for when damage rises to the level of a disaster. Alaska Stat. §§ 26.23.020, 26.23.900(2). Flooding, storms, and other climate-change related disasters are already part of the definition of disaster under both state and national law.

¹²¹ Supra note 59.

¹²² 42 U.S.C. § 5170(a).

¹²³ 44 C.F.R. § 206.48.

¹²⁴ The Stafford Act in its current form actually prohibits such an effect: "No geographic area shall be precluded from receiving assistance under this Act solely by virtue of an arithmetic formula or sliding scale based on income or population." 42 U.S.C. § 5163.

assessed aside from just income, such as whether the disaster affects minority communities or those dependent on subsistence foods.¹²⁵ While criteria that limit disaster declarations and financial assistance to areas and communities that need it most would reduce the flexibility of FEMA and the President to declare a disaster, they would increase the likelihood of assistance being directed to where it is most needed.

Changes to the Stafford Act should address the disproportionate amount of post-disaster funding compared to predisaster funding. Part of the problem is that the Stafford Act makes preventative funding under the Hazard Mitigation Grant Program (HMGP) equal to a small percentage of money spent on recent disaster declarations, rather than basing spending on the risk of future disasters.¹²⁶ This means that a community that did not get a presidential disaster declaration cannot get HMGP funding, although it could still apply for the smaller pot of funding available through the Pre-Disaster Mitigation Program (PDM). Hazard mitigation plans, which are specifically required to assess and quantify future risks and damages,¹²⁷ could serve as a better basis for determining the amount of mitigation funding to which a jurisdiction is entitled. If a community does not have a hazard mitigation plan, its risks could be approximated from those of a nearby community and/or the state hazard mitigation plan.

With regards to FEMA's cost-benefit rules for HMGP and PDM, just as American individuals pay progressively higher levels of income tax on greater earnings, FEMA could require households and communities with higher levels of income to demonstrate a higher benefit to cost ratio for proposed projects.¹²⁸ Communities recognized as "small and impoverished"¹²⁹ by FEMA could be

¹²⁵ National agencies are already required to consider environmental justice concerns in their decision-making. Exec. Order No. 12898, 3 C.F.R. § 7629 (1994).

¹²⁶ 42 U.S.C. § 5170c(a) (2018); 44 C.F.R. § 206.432 (2009).

¹²⁷ 44 C.F.R. §§ 201.4–.7 (2015).

¹²⁸ Both statutes, like 42 U.S.C. § 5133(h) (2018) and 44 C.F.R. § 206.434 (2016), and guidance, like FEMA, DEPARTMENT OF HOMELAND SECURITY, HAZARD MITIGATION ASSISTANCE UNIFIED GUIDANCE: HAZARD MITIGATION GRANT PROGRAM, PRE-DISASTER MITIGATION PROGRAM, AND FLOOD MITIGATION ASSISTANCE PROGRAM at 40 (2013), could be revised to incorporate the recommended progressive cost-benefit calculation requirement. ¹²⁹ See 42 U.S.C. § 5133(a) (2018).

approved for projects with a lower benefit-cost ratio. This would be consistent with climate justice, given that many impoverished communities, particularly indigenous communities, have not had a large historical role in contributing to greenhouse gases but lack the means to address climate change impacts.¹³⁰

B. Smoothing the Response and Recovery Process

There may be additional things that FEMA could do to smooth the disaster declaration and recovery process, such as more consistent adherence to existing FEMA regulations on how money is to be spent in disaster recovery.¹³¹ FEMA could issue regulations expressing a preference for more permanent, climate-appropriate housing for residents with a demonstrated interest in staying in the village, as opposed to the kind of temporary housing in the floodplain that Allakaket received. Cash buyouts under HMGP may be more appropriate for those who do not want to be in the village. Further, FEMA should consider what functions could be performed by residents, rather than flying FEMA workers to and from the disaster site each day. FEMA could develop a video or video series that could be watched on a smartphone or on DVD to explain how the disaster declaration/recovery process works (i.e., options in terms of moving buildings or rebuilding, typical timeframes). The video could feature residents who went through process (i.e., Allakaket and Alatna) talking about and comparing their experiences.

To avoid "colonizing" disaster response, there is a need to better integrate subsistence and other Alaska Native lifeway concerns into the natural disaster recovery process. The Stafford Act already allows FEMA to provide for various personal and workrelated needs for individuals.¹³² For example, FEMA's Other Needs Assistance (ONA) program specifies some of these needs¹³³ but does not mention subsistence. It could be interpreted or specifically amended to provide for subsistence-related infrastructure (i.e., fish

¹³⁰ Carmen Gonzales & Sumudu Atapattut, *International Environmental Law, Environmental Justice, and the Global South*," 26 TRANSNAT'L LAW AND CONTEMP. PROBS. 229, 230–233 (2017); Paavola & Adger, *supra* note 9.

¹³¹ See 44 C.F.R. \S 206 (2009), for existing FEMA regulations.

 $^{^{132}}$ 42 U.S.C. § 5174(e)(2) (2018).

¹³³ 44 C.F.R. § 206.119(c) (2002).

wheels, cabins where subsistence participants temporarily reside) and gear (i.e., nets, boats).¹³⁴

Another way to address subsistence would be for Congress to amend the Magnuson Stevens Act and/or the Interjurisdictional Fisheries Act¹³⁵ to add "subsistence" to the section providing for disaster relief. This would allow the National Oceanic and Atmospheric Agency (NOAA) to declare and provide relief for disasters that specifically affect subsistence.¹³⁶ Alaska's separate law on economic disasters, which has been used for subsistence, could be revised to better address subsistence disasters and provide relief to the extent that FEMA fails to address subsistence after presidential disaster declarations.

Short of changing laws, it would be helpful for those who may be involved in disaster recovery in ANVs to have some sort of cultural sensitivity training and understanding of ANV lifeways. To start, various ANVs have already worked with national agencies to create videos providing such training.¹³⁷

¹³⁴ Some FEMA officials may already be interpreting ONA to provide for this. There is a photo of a fish wheel in FEMA's press coverage of the Eagle Village recovery with the caption, "Salmon Wheels are a necessary tool for the subsistence living residents in the upper Yukon and FEMA provides Other Needs Assistance (ONA) in the form of grants to those who are eligible for federal assistance." ADAM DUBROWA, SALMON WHEEL IN RUIN (photo. reprint (Aug, 7, 2013) (Aug. 8, 2013), <u>https://www.fema.gov/media-</u> <u>library/assets/images/72358 [https://perma.cc/AZT4-UH87]</u>.

library/assets/images/72358 [https://perma.cc/AZT4-UH87]. ¹³⁵ Pertinent sections of both are respectively codified at 16 U.S.C. § 1802 (2018), 16 U.S.C. § 1861a (2006), 16 U.S.C. § 1864 (2007).

¹³⁶ Examples of the kind of relief that would be helpful to subsistence participants can be found in an agreement that the North Slope Borough, a county-level government in Arctic Alaska, has brokered with various oil companies to provide relief in the event of an oil spill: transportation required to relocate subsistence hunters and their equipment to alternate hunting sites and to safely return the hunters, their equipment and subsistence catch to their village; acquisition of alternate subsistence food supplies to replace subsistence resources that are otherwise unavailable and transportation of food supplies to their designated destination; and assistance for the Alaska Eskimo Whaling Commission to restore their International Whaling Commission subsistence whaling quota. EXXONMOBIL & NORTH SLOPE BOROUGH, POINT THOMSON PROJECT OIL SPILL CONTINGENCY MITIGATION AGREEMENT (2009). ¹³⁷ U.S. Fish and Wildlife Serv., *Alaska Native Cross Cultural Communication*

for Law Enforcement (May 19, 2016)

https://www.youtube.com/watch?v=q7C1V7aZgkI&t=70s

[[]https://perma.cc/ST99-YVDW].

C. Thinking beyond FEMA and the Stafford Act

Amending the Stafford Act was participants' most common suggestion for fixing the disaster framework. Based on participants' descriptions of FEMA as taking an emergency, incident command approach with limited community participation, however, perhaps FEMA is not the best-equipped agency to be charged with long-term efforts to avoid disasters. As one state planner told me, "FEMA doesn't have scientists and engineers, it is really just designed for disaster response."¹³⁸

It could be more useful to allocate limited funding to programs that are more flexible in meeting community needs and have longer planning horizons, such as the Community Block Development Grants administered by the national Department of Housing and Urban Development (HUD). The legislation and regulations authorizing these grants do not specifically provide for hazard mitigation activities like elevation and relocation, but it is possible that such activities might fall within the permissible category of "rehabilitation." ¹³⁹ Otherwise, there may be a need to broaden HUD's mandate so that it can better assist communities seeking to protect themselves or relocate in the face of climate change-related disasters.

D. ANV Mobilization

ANVs have faced emergencies and disasters for millennia and have a history of sharing resources and being prepared to endure temporary discomfort. In modern times, this resilience is evidenced by descriptions of emergency preparedness measures, such as providing for generators, extra supplies, and family emergency kits.¹⁴⁰ But emergency preparedness alone will not enable ANVs to rebuild after major disasters with the kind of infrastructure to which they have become accustomed in modern times.

¹³⁸ Telephonic Interview with Participant No. 94, female Alaska state employee (Jul. 28, 2016).

¹³⁹ 42 U.S.C. § 5305(a)(4) (2014) authorizes "clearance, demolition, removal, reconstruction, and rehabilitation (including rehabilitation which promotes energy efficiency)." FEMA could adjust 24 C.F.R. § 570.202 (2017) (Eligible rehabilitation and preservation activities) to specifically provide for measures to reduce the risk of loss from extreme weather events and natural hazards.

¹⁴⁰ These descriptions appeared in hazard mitigation plans and interviews with ANV residents.

It would be valuable for ANV residents to agree on what, where, and how each village wants to rebuild in the event of a disaster that destroys much of their existing infrastructure. This need not be some glossy Disaster Recovery Plan prepared by an outside consultant. It could be a joint resolution providing a vision for postdisaster rebuilding passed by the Tribal Council, the council of the incorporated city associated with the ANV, if any, and other leadership entities in the community. For example, the resolution could indicate that new homes will be built in a certain elevated area nearby the community. An ANV could also set a priority on who is most eligible for new housing (i.e., year-round residents, followed by elders and families with children). Finally, given the lack of attention to subsistence and other lifeway concerns at the national level, ANVs could consider how they will meet their nutritional and cultural needs in the event that disaster reduces the population of, or access to, an important subsistence resource. This may involve informal or formal agreements with other ANVs whose subsistence may not be affected. Being proactive could avoid a hasty, unplanned disaster response from FEMA that gives rise to a sense of colonization and injustice.

Developing a post-disaster vision and mustering the resources to carry it out is easier said than done. From a Western standpoint, there is a significant gap in "capacity" between those who live in ANVs and those outside ANVs involved in disaster response.¹⁴¹ It is important for ANV leaders to improve their understanding of state and national resources and processes relevant to disaster management. As a start, ANVs can take advantage of free disaster management courses offered regularly at FEMA's training institute.¹⁴² It is also important for ANVs to build relationships with staff at FEMA and the equivalent state agency, as well as other agencies that can provide resources.

¹⁴¹ GAO, *supra* note 30, at 20; Robin Bronen & F. Stuart Chapin III, *Adaptive Governance and Institutional Strategies for Climate-Induced Community Relocations in Alaska*, 110 PROCS. OF THE NAT'L ACAD. OF SCIS. U.S. 9320 (2013); Loring et al., *supra* note 17, at 123.

¹⁴² FEMA, *EMI Courses and Schedules*, FEDERAL EMERGENCY MANAGEMENT AGENCY, <u>https://training.fema.gov/emicourses/</u> [https://perma.cc/X3EC-XU3F] (last visited Mar. 2, 2017),

V. CONCLUSION

The United States and, to a lesser extent, the state of Alaska have a system in place to provide funding to Alaska Native Villages and other communities struck by major flooding events. However, this system does little to address the slow-moving erosion and permafrost melt in Alaska, and it can seem unfair, inconsiderate, and even colonizing to local residents who do not understand the process and do not feel fully involved in the recovery. Not only is there a need for more proactive efforts to address disasters related to climate change, but there is also a need for better understanding and action at two levels. First, at higher levels, there is a need to understand the particular concerns of ANVs in terms of their subsistence lifeway and the logistical difficulties in obtaining infrastructure and external support. Federal laws, or at least agency practices, may need to be adjusted to better provide for subsistence concerns in the event of a disaster and to level the playing field for ANVs that want to access assistance outside of a disaster through FEMA's hazard mitigation programs or other programs. Taking into account the particular needs and values of ANVs may help reduce the extent to which assistance comes across as colonizing and unjust. Second, there is a need for ANVs to plan beyond an initial disaster so that they are prepared to fully engage in the recovery process and avoid rebuilding in a manner that does not serve community needs and values. ANVs should be able to act on the sovereignty that they have to make decisions about their future. Doing so will require building the capacity to make decisions within the Western framework in which these communities find themselves and access the resources needed to carry out these decisions.