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When Climate Takes a Village: Legal Pathways toward the Relocation of Alaska Native Villages

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Abstract

In Alaska, indigenous rural communities face climate-related challenges to maintaining their physical and cultural continuity. Some of these communities are considering ‘co-relocation’, in which the population of an entire community relocates to a new site on nearby rural land where residents can continue to practice their subsistence lifeways. Some Alaskans have called for government-assisted co-relocation for Alaska Native Villages (ANVs), whereby national and State of Alaska government agencies pay for and lead the construction of housing and infrastructure at the new site. This model of relocation has many challenges, including expense, delay, lack of support from those outside ANVs, confusion as to which agency will do what, and the effect of continuing an unsustainable Western colonial pattern. The state and federal governments, in partnership with ANVs, need to explore what alternatives are available to preserve these communities’ physical and cultural continuity. This article considers the legal and political framework for relocation alternatives, and suggests pathways that would not require major changes of law or the creation of new agencies. I draw on various legal sources as well as interviews with ANV members, Alaska legislators, Congressional staff, federal and state agency directors, academics, planners, and others who make or influence policy that could affect co-relocation.

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Keywords

relocation – indigenous peoples – Alaska Native Villages – adaptation

1 Introduction

Indigenous communities struggling with the impacts of climate change face particular challenges because of their attachment to traditional lands and the impacts of colonization.¹ In the United States, Alaska Native Villages² are experiencing an especially rapid rate of climate change, including climate-related flooding and erosion, species shifts, melting permafrost, and delayed formation of landfast ice.³ These changes affect subsistence,⁴ on which many ANV residents depend.⁵

- 1 W. Neil Adger and Jon Barnett, 'Four Reasons for Concern about Adaptation to Climate Change', 41(12) *Environment and Planning A* 2800, 41; T.B. Bull Bennett, Patricia Cochran, Robert Gough, Kathy Lynn, Julie Maldonado, Garrit Voggesser, Susan Wotkyns, and Karen Cozzetto, 'Indigenous Peoples, Lands, and Resources', in *Climate Change Impacts in the United States: The Third National Climate Assessment* (2015); Randall S. Abate and Elizabeth Ann Kronk, 'Commonality Among Unique Indigenous Communities: An Introduction to Climate Change and Its Impacts on Indigenous Peoples', in *Climate Change and Indigenous Peoples, The Search for Legal Remedies*, edited by Randall S. Abate and Elizabeth Ann Kronk (Cheltenham: Edward Elgar, 2013), at 3–18.
- 2 The term 'Alaska Native Village' refers to the US-recognized tribe (of which there are 229 in Alaska) and the physical settlement or village.
- 3 C.B. Field, V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, et al., eds. *Climate Change 2014: Impacts, Adaptation, and Vulnerability, Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, 2014); F. Stuart Chapin III, Sarah F. Trainor, Carl Markon, and Mark Serreze, 'Alaska', *Climate Change Impacts in the United States: The Third National Climate Assessment* (2014).
- 4 Many Alaska Natives simply refer to 'traditional hunting, fishing, and trapping' rather than 'subsistence.' I use the term 'subsistence' to include hunting, fishing, and trapping practices undertaken with the primary intent to feed and clothe oneself and one's community, as well as the storage and use of harvested goods. Additional purposes include promoting physical health, educating younger generations, and creating arts and crafts for sale. Subsistence is an economic system that involves trade between families and communities. For legal definitions, see Alaska Stat. § 16.05.940; 16 U.S.C. § 3113.
- 5 Shannon Michele McNeeley, *Seasons out of Balance: Climate Change Impacts, Vulnerability, and Sustainable Adaptation in Interior Alaska* (Fairbanks, AK: University of Alaska Fairbanks, 2009); Patricia Cochran, Orville H. Huntington, Caleb Pungowiyi, Stanley Tom, F. Stuart Chapin, Henry P. Huntington, Nancy G. Maynard, and Sarah F. Trainor, 'Indigenous

In 2003, the US Government Accountability Office (GAO) found that flooding and erosion affected 86 per cent of all ANVs.⁶ In 2009, GAO identified 31 ANVs facing imminent flooding and erosion threats, with four villages needing relocation.⁷ GAO based this finding on a US Army Corps of Engineers study that did not attempt to quantify actual rates of erosion or flooding or predict when these locations would become uninhabitable.⁸ Certain ANVs, such as Newtok, having no proper access to sanitation or drinking water, are clearly on the cusp of uninhabitability.⁹ Other ANVs are also suffering from a variety of existential challenges, ranging from climate change to social and economic problems.¹⁰

Frameworks for Observing and Responding to Climate Change in Alaska', 120(3) *Climatic Change* 557 (2013); Corrine N. Knapp, F. Stuart Chapin, Gary P. Kofinas, Nancy Fresco, Courtney Carothers, and Amy Craver, 'Parks, People, and Change: The Importance of Multistakeholder Engagement in Adaptation Planning for Conserved Areas', 19(4) *Ecology and Society* 16 (2014).

- 6 Government Accountability Office (GAO), 'Alaska Native Villages: Most Are Affected by Flooding and Erosion, but Few Qualify for Federal Assistance' (2003). While climate change has aggravated flooding and erosion on the north and west coasts of Alaska, see Field et al., *supra* note 4, its effect on riverine flooding and is still unclear. Spyros Beltaos and Terry D. Prowse, 'Climate Impacts on Extreme Ice-Jam Events in Canadian Rivers', 46(1) *Hydrological Sciences Journal* 157 (2001); email from Celine Van Breukelen, re Climate Change and Ice Jams (16 November 2015).
- 7 GAO, 'Alaska Native Villages: Limited Progress Has Been Made on Relocating Villages Threatened by Flooding and Erosion' (2009).
- 8 *Ibid.*, at 2–3; see also Army Corps, 'Alaska Baseline Erosion Assessment, Study Findings and Technical Report' (2009).
- 9 These challenges are well documented in numerous publications by Robin Bronen (Newtok), Christine Shearer (Kivalina), and Elizabeth Marino (Shishmaref). See, e.g., Robin Bronen, 'Climate-Induced Displacement of Alaska Native Communities' (Washington, DC: Brookings Institution 2013), <www.brookings.edu/research/papers/2013/01/30-Arctic-Alaska-Bronen>; Elizabeth Marino, 'The Long History of Environmental Migration: Assessing Vulnerability Construction and Obstacles to Successful Relocation in Shishmaref, Alaska', 22(2) *Global Environmental Change* 374 (2012); Christine Shearer, 'The Political Ecology of Climate Adaptation Assistance: Alaska Natives, Displacement, and Relocation', 19 *Journal of Political Ecology* 174 (2012); and Julie Koppel Maldonado, Christine Shearer, Robin Bronen, Kristina Peterson, and Heather Lazrus, 'The Impact of Climate Change on Tribal Communities in the US: Displacement, Relocation, and Human Rights', 120(3) *Climatic Change* 601 (2013).
- 10 See Philip A. Loring, S. Craig Gerlach, and Henry J. Penn, "'Community Work" in a Climate of Adaptation: Responding to Change in Rural Alaska', 44(1) *Human Ecology* 119 (2016) at 123; Amber Himes-Cornell and Stephen Kasperski, 'Assessing Climate Change Vulnerability in Alaska's Fishing Communities', 162 *Fisheries Research* 1, 2 (2015); Melissa Block, 'A Native Village In Alaska Where The Past Is Key To The Future', *All Things Considered*

ANVs and Alaska Natives have strong traditions of adapting to adversities over thousands of years. In the past, communities migrated between several fixed sites in response to seasons and food availability.¹¹ Even after the colonial efforts of the US government and missionaries in the early 1900s to settle each community in one place,¹² many communities moved to avoid flooding or for economic reasons.¹³ The ability to relocate was important, since some of the settlements were too prone to flooding and erosion for permanent habitation.¹⁴

Few ANVs have completely co-relocated in the era of oil dependence, which began with the discovery of oil at Prudhoe Bay in 1968.¹⁵ The discovery led to

(20 June 2017) <www.npr.org/2017/06/20/531612789/a-native-village-in-alaska-where-the-past-is-key-to-the-future>; and Indian Law and Order Commission, 'Reforming Justice for Alaska Natives: The Time is Now,' Chapter 2 in *A Roadmap For Making Native America Safer; Report To The President And Congress Of The United States*.

- 11 Bronen, *supra* note 10, at i.
- 12 Communities consolidated into permanent settlements primarily because of the US Bureau of Education's requirement that Alaska Native children attend school, and also because of the rise of missionaries. Amanda H. Lynch and Ronald D. Brunner, 'Context and Climate Change: An Integrated Assessment for Barrow, Alaska,' 82(1-2) *Climatic Change* 93 (2007) at 104; Gigi Berardi, 'Schools, Settlement, and Sanitation in Alaska Native Villages,' 26(2) *Ethnohistory* 329 (1999), 329-359; and James D. Ford and Tristan Pearce, Frank Duerden, Chris Furgal, and Barry Smit, 'Climate Change Policy Responses for Canada's Inuit Population: The Importance of and Opportunities for Adaptation,' 20(1) *Global Environmental Change* 177 (2010) at 187. For example, Newtok's residents moved to their current site between the Ninglick and Newtok Rivers in 1950 when the Bureau of Indian Affairs decided that the community needed a school. ASCG Incorporated, 'Newtok Transportation Plan,' (2001).
- 13 Based on community histories outlined in the Alaska Division of Community and Regional Affairs, at least 25 ANVs moved due to flooding. Alaska Division of Community and Regional Affairs, 'Community Information' (2015), at <www.commerce.alaska.gov/dcra/DCRAExternal/community>. See also Mamie L. Mizen, *Federal Facilities for Indians: Tribal Relations with the Federal Government: Report* (1967) (citing additional ANVs that moved during the 1960s).
- 14 For example, concern about erosion and flooding in Kivalina have been expressed since soon after the community was first established. Clinton S. Replegle, 'Kivalina, Annual Report of US Public School for the Natives of Kivalina' (30 June 1911). The location was chosen by the Bureau of Indian Affairs rather than the residents. Glenn Gray, 'Kivalina Consensus Building Project, Final Project Report' (2010).
- 15 By 'co-relocation' I mean that the entire population of a village moves to nearby, unoccupied land that may or may not be contiguous with the original site. While in this article I use the term 'co-relocation', others may use a different term to convey the concept of an entire village relocating to a different site. One interviewee voiced a preference for the term 'site expansion', to acknowledge that residents do not wish to give up access to the

efforts to clarify land ownership and build an oil pipeline. It also resulted in the Alaska Native Claims Settlement Act of 1971 (ANCSA).¹⁶ ANCSA stripped tribes of land ownership and gave ownership of some of that land to Native corporations.¹⁷ It also extinguished aboriginal hunting and fishing rights.¹⁸ The State of Alaska was awash with oil money for decades, during which time it supplied ANVs with fossil-fuel-powered Western-style infrastructure and goods.¹⁹

ANVs are now highly adapted to a system that is no longer sustainable in the current era of low oil prices.²⁰ They lack ownership and control over their traditional lands and natural resources that could be used for adaptation.²¹ Given their distance from urban centers and, for many, the absence of road connections, ANVs face high costs of living and limited access to jobs and health care. Homes can be overcrowded. Some families grapple with challenges related to substance abuse and domestic violence, yet many villages lack any police, public-safety officer, or court. Populations in some ANVs have declined to the point where communities can no longer support a school, while in some northern and western ANVs, youth and unemployed individuals are

original site, and because announcing a village 'relocation' plan can lead to disinvestment in critical facilities at the original site.

16 43 U.S.C. §§ 1601–1629.

17 43 U.S.C. § 1603. The Act aimed to expedite construction of the Trans-Alaska Pipeline following the 1968 discovery of oil at Prudhoe Bay. See Clive S. Thomas, Laura Savatgy, and Kristina Klimovich, eds., *Alaska Politics and Public Policy: The Dynamics of Beliefs, Institutions, Personalities, and Power* 277 (Fairbanks, AK: University of Alaska Press 2014). Alaska Native Corporations include village-level and regional corporations whose shareholders are descendants of those who were Alaska's tribal citizens in 1971. 43 U.S.C. §§ 1606–1607.

18 43 U.S.C. § 1603.

19 Gary P. Kofinas, F. Stuart Chapin, Shauna Burn Silver, Jennifer I. Schmidt, Nancy L. Fresco, Knut Kielland, Stephanie Martin, Anna Springsteen, and T. Scott Rupp, 'Resilience of Athabaskan Subsistence Systems to Interior Alaska's Changing Climate', 40(7) *Canadian Journal of Forest Research* 1347 (2010) at 1353; Marino, *supra* note 10, at 375, 378; Loring et al., *supra* note 11, at 122.

20 This adaptation could be considered a maladaptation in that it reduces the long-term resilience of a community by making it dependent on unsustainable financial capital. See Lynch and Brunner, *supra* note 13 at 96; Jon Barnett and Saffron O'Neill, 'Maladaptation', 20(2) *Global Environmental Change* 211, 211 (2010).

21 E. Barrett Ristorph, 'Alaska Tribes' Melting Subsistence Rights', 1 *Ariz. J. Envtl. L. and Policy* 47, 76–77 (2010). The State of Alaska and its political subdivisions have land-use jurisdiction over Native corporation lands. See Alaska Statutes Title 29; P.L. 280 Act of 15 August 1953 (codified at 18 U.S.C. § 1162, 25 U.S.C. §§ 1321–1326, 28 U.S.C. §§ 1360). The federal and state government have jurisdiction over natural resources and wildlife, with some opportunities for co-management with ANVs. 16 U.S.C. Chapter 51(11); Alaska Statutes 16.05.258.

rapidly increasing.²² The Western-style infrastructure that was introduced to many ANVs during the oil boom is expensive, hard for locals to maintain, and not really suitable for the climate in Alaska.²³ Fast-moving climate change aggravates ANV problems by threatening infrastructure and making subsistence less safe and more difficult.²⁴

Faced with flooding and erosion risks that may worsen in the future, some ANVs seek to 'co-relocate'. Most residents in these communities do not want to see a 'dispersed' relocation, where individuals and families gradually move to a more urban community with room to absorb them.²⁵ Some are also opposed to joining up with a nearby community, due to concerns about discrimination and difficulties in maintaining their current subsistence practices.²⁶ ANVs including Newtok, Kivalina, and Shishmaref have actively planned to co-relocate with government assistance, but have been stymied by costs, the lack of leadership among state and federal agencies in facilitating relocation, and, in some

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- 22 Hamilton, Kei Saito, Philip A. Loring, Richard B. Lammers, and Henry P. Huntington, 'Climigration? Population and Climate Change in Arctic Alaska', 38(2) *Population and Environment* 115 (2016).
- 23 By 'Western-style' I am referring to poorly insulated, above-ground timber houses and large, immobile systems to supply power, drinking water, and sanitation to the entire community. When asked about maladaptations, eight of my research participants referred to 'overbuilding' or overspending on infrastructure that ANVs cannot sustain. Eleven referred to infrastructure constructed by outsiders using 'Lower 48'-style designs that did consider local knowledge. 'Western-style' infrastructure contrasts with Arctic-appropriate houses with better insulation and space usage as well as individual/household units that could provide for sewage. For more details on this research, see E.B. Ristroph, 'Presenting a Picture of Alaska Native Village Adaptation: A Method of Analysis,' 5(9) *International Journal of Sociology and Anthropology* 762 (2017).
- 24 Ristroph, *supra* note 22 at 58–59. Lack of subsistence jurisdiction hinders adaptation and relocation, because ANV members cannot rely on traditional strategies of hunting different species at different times and places in response to environmental changes. Kofinas et al., *supra* at 20; Sophie Theriault, Ghislain Otis, Gerard Duhaime, and Christopher Furgal, 'The Legal Protection of Subsistence: A Prerequisite of Food Security for the Inuit of Alaska', 22 *Alaska L. Rev.* 35 (2005).
- 25 Fifteen people I interviewed (both from ANVs and from more urban settings) mentioned disadvantages of moving to urban settings.
- 26 Annie Weyiouanna, Community Coordinator for the Native Village of Shishmaref, Alaska, explained (personal communication, 13 December 2016): 'It's like a punch in the gut to be told to move to Nome We don't want that. We want to stay as a community and move to where we want to. ... If we are forced to move to a hub, that's taking our identity away.'

cases, disagreement among their members and with federal and state agencies regarding relocation.²⁷

The confusion about how to navigate the laws and institutions related to relocation and climate change poses barriers not just to indigenous communities, but also to other communities throughout the United States that may wish to relocate due to climate stress.²⁸ Beyond the United States, many communities are facing the prospect of climate-induced relocation, be it to higher ground in the same country, or to other countries in the case of small-island states. The latter are grappling with the lack of an international framework to facilitate 'climate refugees'.²⁹

While this article only considers the legal and political framework for climate-induced relocation of ANVs, some aspects of US federal law are relevant to other US communities. These include how relocation takes place after federally declared disasters and how agencies conduct environmental reviews for relocations outside of the disaster-relocation process.

Section 2 of this article outlines the reasons why ANVs want to co-relocate and why state and federal governments should provide some form of support for relocation. Section 3 describes obstacles that ANVs pursuing government-assisted co-relocation are facing. Section 4 discusses alternatives to the kind of co-relocation described in Section 3. Section 5 describes how current laws could be modified to better support ANV co-relocation. The article is based on a review of laws and literature, as well as interviews and conversations with 153 people in ANVs and those who affect ANV policy.³⁰

2 Why Co-relocate? Principles of Climate Justice

In 2006, the US Army Corps of Engineers estimated that the cost to relocate Kivalina, Newtok, and Shishmaref ranged from \$80 million to \$200 million for

27 See studies cited in note 10, *supra*.

28 See Elizabeth Ferris, 'Planned Relocations, Disasters and Climate Change: Consolidating Good Practices and Preparing for the Future', Background Document, Sanremo Consultation (March 12, 2014).

29 See, generally, Maxine Burkett, *In Search of Refuge: Pacific Islands, Climate-Induced Migration, and the Legal Frontier* (Honolulu: East-west Center, 2011).

30 For a complete description of methods, see E.B. Ristroph, 'Presenting a Picture of Alaska Native Village Adaptation: A Method of Analysis', 5(7) *International Journal of Sociology and Anthropology* (2017) (forthcoming).

each community.³¹ The current costs to co-relocate a village are unknown, but likely to be high as long as they are based on the idea of Western-style infrastructure being imported from far away and assembled by ‘qualified’ workers.³² National and state policymakers have suggested that these high costs make co-relocation infeasible.³³ In this section, I argue that factors beyond these costs merit consideration, including principles of climate justice.

First, policymakers should consider the costs of *not* supporting co-relocation. Dispersed relocation could result in tangible and intangible costs. When displaced community members arrive in urban settings, they may not have the skill sets that allow them to thrive. There are tangible costs of job training, counseling, and food assistance, as well as intangible costs of losing local control, a unique culture and way of life, and potentially a language. At the same time, there are benefits in having people positioned in remote outputs. Residents on the west coast of Alaska would likely serve as first-responders in the event of disasters from the increasing Bering Sea ship traffic. Residents in all villages collect information about their environment every time they hunt, fish, and travel across their traditional lands and waters. When people are able to stay in their traditional communities with fellow tribal citizens, they are better able to maintain their culture and avoid the social adjustment challenges associated with urban resettlement.³⁴

31 Army Corps, ‘An Examination of Erosion Issues in the Communities of Bethel, Dillingham, Kaktovik, Kivalina, Newtok, Shishmaref, and Unalakleet’ (2006).

32 Federal law requires labor standards that raise the cost of construction and may disqualify local workers. E.g., Davis Bacon Act, 40 U.S.C. 3141 et seq.; Fair Labor Standards Act of 1938, as amended, 29 U.S.C. 201 et seq.; McNamara-O’Hara Service Contract Act of 1965, as amended, 41 U.S.C. 351 et seq.; Contract Work Hours and Safety Standards Act, as amended, 40 U.S.C. 3701 et seq.; Walsh-Healey Public Contracts Act, 41 U.S.C. 35 et seq.; Copeland Anti-Kickback Act, 40 U.S.C. 3145; see U.S. Department of Labor, Wage and Hour Division, Davis-Bacon and Related Acts <www.dol.gov/whd/govcontracts/dbra.htm>. To show what this does to the costs of housing, consider the example of a proposal by the Interior Regional Housing Authority made to Allakaket at a Tribal council meeting I attended in May 2015: two houses without plumbing would cost \$1.2 million.

33 Twenty-nine out of 75 of my research participants who offered an opinion on relocation suggested that co-relocation was not possible due to high costs.

34 Rachma M. Syam and Ryuzo Ohno, ‘Residents’ Usage Of, Adjustment To, and Evaluation of Donated Post-Disaster Housing’, in *Vulnerability, Risks, and Complexity: Impacts of Global Change on Human Habitats*, edited by Sigrun Kabisch, Anna K. Kunath, Petra Schweizer-Ries, and Annett Steinführer (2012); Adger and Barnett, *supra* note 2 at 2803; Colette Mortreux and Jon Barnett, ‘Climate Change, Migration and Adaptation in Funafuti, Tuvalu’, 19(1) *Global Environmental Change* 105 (2009).

Costs aside, climate justice merits consideration. Principles of climate justice suggest that those who have the most responsibility for greenhouse gas emissions should assist less responsible, at-risk populations in adapting to climate change and with low-carbon development.³⁵ Most ANVs have very little responsibility for producing greenhouse gases compared to the rest of the United States, yet they are at a greater risk of losing their homes and lifeways.³⁶ Climate justice has distributive and procedural components. The distributive aspect relates to providing monetary and technical assistance.³⁷ Because the American people as a whole have benefited from the United States' historic and current contributions to climate change, the federal government has a responsibility to support the adaptation of America's vulnerable, place-based communities.³⁸ Likewise, the state of Alaska, which has benefited from the greenhouse-gas-emitting oil and gas industry,³⁹ has a responsibility to support ANV adaptation.

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- 35 Mary Robinson Foundation, 'Principles of Climate Justice' (2014) at 2, <www.mrfcj.org/about/principles.html>; Donald R. Nelson, W. Neil Adger and Katrina Brown, 'Adaptation to Environmental Change: Contributions of a Resilience Framework', 32(1) *Annual Review of Environment and Resources* 395 (2007) at 410. Climate justice has roots in John Rawls's *A Theory of Justice*, which argues that social and economic inequalities to be arranged 'so that they are both (a) to the greatest benefit of the least advantaged and (b) attached to offices and positions open to all under conditions of fair equality of opportunity.' John Rawls, *A Theory of Justice* 302 (1971); Kirstin Dow, Roger Kasperson, and Maria Bohn, 'Exploring the Social Justice Implications of Adaptation and Vulnerability,' in *Fairness in Adaptation to Climate Change*, edited by W. Neil Adger, Jouni Paavola, and Saleemul Huq, 79–96 (2006).
- 36 Jonathan M. Hanna, 'Native Communities and Climate Change: Protecting Tribal Resources as Part of National Climate Policy: Report' (2007) 29 <http://scholar.law.colorado.edu/cgi/viewcontent.cgi?article=1014&context=books_reports_studies>; Peter Van Tuyn, 'America's Arctic: climate change impacts on indigenous peoples and subsistence,' Chapter 13 in *Climate Change and Indigenous Peoples, The Search for Legal Remedies*, edited by Randall S. Abate and Elizabeth Ann Kronk (2013).
- 37 Jouni Paavola and W. Neil Adger, 'Fair Adaptation to Climate Change', 56 *Ecological Economics* 594 (2006).
- 38 Thom Brooks, 'Climate Change Justice,' 46 *Ps: Political Science and Politics* 9, 9; Elizabeth Ann Kronk Warner and Randall S. Abate, 'Climate Justice for Arctic Indigenous Peoples,' 43 R.G.D. 113, 135 (2013); Paavola and Adger, *supra* note 36; Mary Robinson Foundation, *supra* note 36.
- 39 See, e.g., Alaska Department of Revenue, 'Annual Report' (2014), <www.tax.alaska.gov/programs/documentviewer/viewer.aspx?1139r> (showing how much of the state government's budget has come from oil revenue).

The procedural aspect of climate justice involves engaging with indigenous communities to determine how they want to adapt and to ensure that they (not any outside government) take a leading role in any sort of relocation.⁴⁰ This engagement is consistent with efforts to ‘decolonize’ interactions with indigenous communities by acknowledging the validity of indigenous lifeways and epistemologies.⁴¹ Indigenous community participation is all the more essential given the legacy of unjust relocations of some communities during colonization.⁴²

While the precise location of certain ANVs is problematic due to flooding and erosion, most residents want to continue to live, hunt, and fish in their traditional lands and waters. Thus, co-relocation to nearby suitable land has emerged as a preferred option for some communities facing flooding and erosion.

3 Obstacles to co-relocation

While state and federally supported co-relocation may be consistent with principles of climate justice, there are many obstacles to carrying out such relocation. Robin Bronen called attention to obstacles that the Native Village of Newtok has faced, including the lack of a coordinating agency or government funding dedicated to relocation.⁴³ This section summarizes these obstacles.

Previously, the US Congress had authorized the Army Corps of Engineers to take the lead role in relocating ANVs and had appropriated money to do so.⁴⁴

40 Asuka Hirabe, ‘Rising Waves of Change: Sociocultural Impacts of Climate Change in the Village of Taftoala, Samoa, in the Face of Globalization,’ (2011), available at <<http://scholar.space.manoa.hawaii.edu/handle/10125/24266>>, at 86; Cochran et al., *supra* note 6.

41 Julie Koppel Maldonado, *Facing the Rising Tide: Co-Occurring Disasters, Displacement, and Adaptation in Coastal Louisiana’s Tribal Communities* (2014), at 255; Linda Tuhiwai Smith, *Decolonizing Methodologies: Research and Indigenous Peoples* (2nd ed., 2012), 41, 101.

42 Jamie Kay Ford and Erick Giles, ‘Climate Change Adaptation in Indian Country: Tribal Regulation of Reservation Lands and Natural Resources’ 41 *Wm. Mitchell L. Rev.* 519 (2015), at 521.

43 Robin Bronen, ‘Climate-Induced Community Relocations: Creating an Adaptive Governance Framework Based in Human Rights Doctrine’, 35 *NYU Rev. L. and Soc. Change* 357 (2011), at 399.

44 Consolidated Appropriations Act, 2005, Pub. L. No. 108–447, Div. C, Title I, § 117, 118 Stat. 2944–45 (2004).

Congress later revoked this mandate.⁴⁵ Although the Corps could facilitate relocation under present laws,⁴⁶ it will not do so without funding.⁴⁷

Another contender for a leading role in ANV relocation was the Alaska Climate Change Sub-Cabinet's⁴⁸ Immediate Action Work Group (IAWG), formed by the State of Alaska to address impacts on vulnerable communities.⁴⁹ IAWG identified six communities (all ANVs) in need of immediate action and recommended relocation planning and other adaptation actions.⁵⁰ Based on IAWG's recommendations, the Alaska Legislature established the Alaska Climate Change Impact Mitigation Program.⁵¹ The program allocated non-competitive funding to the six priority communities and administered other funding through a competitive grant process.⁵² But the Sub-Cabinet became dormant in 2011, and has not been revived.

45 Pub. L. No. 111-8, Div. C, Title I, § 117, 123 Stat. 524 (2009). This program had no cost-sharing requirement.

46 Section 116 of the Energy and Water Development and Related Agencies Appropriations Act, 2010 (P.L. 111-85) provides a similar authority to that which was revoked, but it requires cost sharing of up to 35 percent non-federal. The Army Corps completed a Section 117 construction project in Unalakleet and is planning a Section 116 project for in Utqiagvik /Barrow. See Army Corps, Unalakleet Erosion Control Project, Unalakleet, Alaska, Environmental Assessment and Finding of No Significant Impact (2007); Army Corps, Barrow Coastal Erosion Mitigation Project Feasibility Study (2016), <www.usace.army.mil/Portals/2/docs/civilworks/Project%20Planning/wrda/2014/2016_proposals/AK_POD_Barrow_Coastal_Erosion_Mitigation_Proj_Feas_Study_Proposal.pdf?ver=2017-03-16-110730-233>.

47 Interview with Bruce Sexauer, Chief of the Civil Works Branch, Alaska District, Army Corps (29 November 2016).

48 State of Alaska, Administrative Order 238 (14 September 2007).

49 IAWG, Recommendations Report to the Governor's Subcabinet on Climate Change (2008).

50 Ibid, Bronen *supra* note 10, at iii.

51 Alaska Administrative Code 3 AAC 195.040.

52 Criteria for the competitive funding included risk to life or safety during storm or flood events; loss of critical infrastructure; threats to public health; and the loss of 10% or more of residential dwellings. Communities that received this funding could then obtain additional funding to support adaptation activities, including relocation planning. Sally Russell Cox and Erik O'Brien, 'Alaska Division of Community and Regional Affairs, Memo Re Notice of Competitive Grant Solution (12 January, 2009). See also Robin Bronen and F. Stuart Chapin, 'Adaptive Governance and Institutional Strategies for Climate-Induced Community Relocations in Alaska', 110(23) *Proceedings of the National Academy of Sciences of the United States of America* 9320, 9321 (2013).

Currently, there is no lead agency or law in Alaska to coordinate adaptation or relocation, and many Alaskans (as well as many outside Alaska) resist the idea of a new agency or law.⁵³ A new agency, or a new program under an existing agency, would be dysfunctional unless the legislature appropriated funding to it—a decision that could reduce funding to other agencies and programs that already have roles in adaptation and relocation. A new agency would have to work with existing agencies to provide infrastructure and logistics, recognizing that each agency has its own regulations, priorities, and grant programs.⁵⁴

Dependence on agency-assisted relocation has its disadvantages, including agency control over site selection. In Kivalina's case, a long study conducted by the Army Corps of Engineers⁵⁵ ultimately invalidated the community's preferred relocation site. Agency support can also mean that a large percentage of relocation funding will be consumed by agency overhead costs.⁵⁶

Once a site is selected and approved, there is still the problem of land ownership. Newtok spent seven years brokering an act of Congress to exchange its current site for a new site located on federal land managed by the US Fish and Wildlife Service.⁵⁷

53 Of my 54 research participants that discussed the potential for a new law to address relocation, nine wanted to see a new law. Of the 40 who discussed the potential for a new agency, seven wanted to see a new agency. Many felt that there were already too many laws and agencies, and creating another one without institutional knowledge whether it would simply add to bureaucracy and contribute to 'siloeing' of agencies.

54 GAO *supra* note 7, at 36. One example of conflicting regulations concerns the Department of Housing and Urban Development (HUD), which has been the primary source for new housing development in rural Alaska. But an ANV cannot service HUD-funded houses with funds from Indian Health Service (which has the primary responsibility to address sanitary needs in ANVs) due to restrictions in the Native American Housing Assistance and Self-Determination Act Indian Housing Block Grant. See US Pub. L. 104–330, Sec. 522 (26 October 1996) (terminating a provision of the Housing Act of 1937 that provided for water and sewer development for Indian housing).

55 Army Corps, 'Relocation Planning Project Master Plan, Kivalina, Alaska' (2006).

56 Newtok Council Attorney Michael Walleri described a federal grant to Newtok administered by the state, in which the majority of the grant money paid for agency programmatic costs rather than Newtok-related expenses. Out of a \$200,000 grant, about \$60–80,000 went to a contractor, CRW, which was not bid competitively. Interview with Michael Walleri (23 February 2017).

57 US Pub. Law 108–129 was signed into law on 17 November 2003 after six years of negotiation DCRA, Newtok Relocation History, <www.commerce.alaska.gov/web/dcra/PlanningLandManagement/NewtokPlanningGroup/NewtokVillageRelocationHistory/NewtokHistoryPartTwo.aspx>.

For Newtok, government agencies have focused on rebuilding some of the same large, Western-style infrastructure at the new site (Mertarvik), while the community remains at the old site. The new infrastructure includes an evacuation center, even though Newtok's hazard-mitigation plan indicates that there is no flooding and erosion risk at Mertarvik.⁵⁸ Each of these large structures has triggered review under the National Environmental Policy Act (NEPA), which requires any federal agency that assists or funds a project with potential environmental impacts to conduct an environmental review.⁵⁹ Currently there is no guidance for conducting NEPA reviews for relocation, although agencies are supposed to use the 'shortest existing applicable process'.⁶⁰ The result is that agencies providing assistance to a community relocation may undergo numerous, piecemeal reviews for different aspects of the relocation, rather than conducting a programmatic analysis of co-relocation for one or more communities.⁶¹

In addition to the challenges of not having a lead agency or a streamlined process for site selection, relocation, and the associated environmental reviews, ANVs seeking government assistance for relocation must grapple with federal and state restrictions on building in floodplains and wetlands.⁶² These restrictions, which require government-sponsored construction projects to be sited and constructed to reduce the potential for flood and erosion damage, are important to limit new construction in flood-prone areas. But they can also complicate the expansion or relocation of ANVs already located in floodplains (as so many are). An ANV may have trouble receiving funding for needed

58 Village of Newtok Hazard Mitigation Plan Update (2015) 68, <www.commerce.alaska.gov/web/Portals/4/pub/2015_Newtok_HMP.pdf>.

59 42 U.S.C. § 4332(C).

60 42 U.S.C. 5170c(d)(1)(B); 49 C.F.R. 24.8(d). This applies to relocation led by the Federal Emergency Management Act under the Hazard Mitigation Grant Program.

61 For example, the Army Corps has lead numerous environmental reviews for different aspects of the Newtok relocation over many years, and there will likely be additional reviews as houses are placed at the new location. GAO *supra* note 7, at 31.

62 Executive Order 11988 of 24 May 1977 (Floodplain Management) (requiring federal agencies to avoid the long- and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative); Executive Order 13690 of 30 January 2015 (amended Order 11988 by incorporating a new Federal Flood Risk Management Standard); Executive Order 11990 of 24 May 1977 (Protection of Wetlands); Alaska State Administrative Order 175 of 8 June 1998.

repairs at its existing site because of its floodplain location, in addition to the troubles of securing funding for infrastructure at a new site.⁶³

Newtok's decision to relocate, along with the imminent threat of flooding and erosion, impeded its ability to get funding needed to keep the community's facilities running in the interim.⁶⁴ Also, Newtok was not able to secure infrastructure at its relocation site, Mertarvik, until one agency (the US Economic Development Administration) decided to invest in construction of a dock necessary for bringing in equipment and supplies by barge.⁶⁵ At the same time, there is concern that investment made to preserve existing communities in their current location could delay their relocation.⁶⁶

Ironically, if disaster did strike and the federal government declared an official disaster, a government-facilitated move would be much simpler. Under the Stafford Act,⁶⁷ which governs disaster declarations, no NEPA review is required for relocation.⁶⁸ The Federal Emergency Management Agency (FEMA) would assume the role of lead agency, with the power to direct the military

63 This is compounded by Alaska's Administrative Order No. 224 of 28 January 2005, which prioritizes 'the infrastructure needs of existing communities before consideration of proposals to create new communities, unless there is a congressionally directed relocation of an existing community.' State guidelines (which are based on federal guidelines) do not specifically prohibit investment in communities planning to relocate. Rather, State Administrative Order 224 is intended to be consistent with the Denali Commission Act of 1998. Order 224 requires new facilities to be protected against imminent environmental threats, such as flooding and erosion, consistent with Administrative Order No. 175. Email from Sally Russel Cox, Alaska Division of Community and Regional Affairs (1 August 2016).

64 GAO *supra* note 7, at 32.

65 Interview with Sally Russel Cox, Planner, Program Manager, Alaska Division of Community and Regional Affairs (July 28, 2016). A resident from the Interior village of Koyukok reported that the community faced a situation similar to Newtok's, where unable to get state funding for capital improvements, until it changed its relocation plans and announced it would stay in place.

66 Representatives from Shishmaref informed GAO that any work done to protect the existing village could reduce the urgency to move. GAO *supra* note 7, at 32.

67 Stafford Act, US Pub. L. No. 93-288 (1974), codified as amended at 42 U.S.C. §§ 5121-5206, as amended by Section 322 of the Disaster Mitigation Act of 2000 (P.L. 106-390), Katrina Emergency Management Reform Act of 2006, US Pub. L. No. 109-295, 120 Stat. 1394 (codified as amended in scattered sections of U.S.C.).

68 42 U.S.C. § 5159. The Stafford Act provides for (but does not mandate) government acquisition of high-risk, repetitive loss land and relocation. 42 U.S.C. § 5170c(b)(1). FEMA has regulations for relocation at 44 CFR Part 80 based on the Stafford Act and the National Flood Insurance Act. Section 44 CFR 80.11(b) explains what land is eligible for FEMA-assisted relocation: 'Eligible properties are those with at-risk structures on the property,

and other agencies to assist in construction.⁶⁹ If an ANV understands and is able to take full benefit of the disaster process, it could relocate in a relatively short period on its own terms. This was the case for the Native Village of Alatna after a 1994 flood that destroyed the community. Alatna's leadership negotiated with FEMA to obtain new houses (built in a traditional, local style) up on a bluff, in the span of less than a year.⁷⁰ This scenario is certainly not true of all villages—to date, residents of Allakaket whose homes were destroyed by the same flood continue to live in temporary housing supplied after the flood.⁷¹ Both Newtok⁷² and Kivalina have sought a federal disaster declaration for their erosion problems, but, because the Stafford Act does not cover erosion,⁷³ their requests were denied.⁷⁴

In the absence of a lead agency or process, the Denali Commission, in cooperation with the State's Division of Community and Regional Affairs, has emerged as a relocation coordinator. The Commission has the advantage of having extremely broad enabling legislation, which allows it to devote resources to relocation coordination.⁷⁵ But the funding Congress has allocated to the

including those that are damaged or destroyed due to an event. In some cases, undeveloped, at-risk land adjacent to an eligible property with existing structures may be eligible.'

69 See 42 U.S.C. § 5170b. FEMA was created by Executive Order 12127 under President Carter in 1979 to handle disaster relief programs. Since the Homeland Security Act of 2002, 6 U.S.C. §101–1717, FEMA has operated as a subagency within the Department of Homeland Security.

70 Alatna Comprehensive Plan, (1995) I-2.

71 This statement is based on the Allakaket Comprehensive Plan (1995) II-21 and interviews with Allakaket residents.

72 FEMA, 'FEMA Daily Operations Briefing' (3 January 2017), <https://content.govdelivery.com/attachments/USDHSFEMA/2017/01/03/file_attachments/729159/FEMA%2BDaily%2BOps%2BBriefing%2B01-03-2017.pdf>.

73 42 U.S.C. § 5122. The Alaska statutory definition of a disaster is similar to the federal definition in its exclusion of erosion and climate change. Alaska Stat. § 26.23.900(2).

74 Rachel Waldholz, 'Obama denies Newtok's request for disaster declaration,' *Alaska Public Media* (18 January 2017), <www.alaskapublic.org/2017/01/18/obama-denies-newtoks-request-for-disaster-declaration/>.

75 Denali Commission Act of 1998, US Pub. L 105–277, 112 Stat. 2681–637, Title III, Sec. 303, codified as note to 42 USC 3121. It has far more authority and flexibility than other agencies that provide infrastructure. For example, the Commission need not adhere to the Federal Advisory Committee Act. *Ibid.* at Sec. 308. Its ability to receive funding from different sources is also flexible. Interview with Joel Neimeyer, Chair, Denali Commission (4 October 2016). The Commission has not had a stable budget since the passing of its main proponent, Senator Ted Stevens. David Sheppard, Inspector General, Denali Commission, 'Information Memorandum for the Denali Commissions, Top Management

Commission is miniscule.⁷⁶ The Commission is currently using these resources to hire grant writers for the communities designated as imminently threatened, and to establish a prioritization scheme to determine which community to relocate first.⁷⁷ The prioritization scheme is well-intended, but it has consumed a great deal of time and resources without any federal or state money appropriated to the Commission to carry out the scheme. Even if a community is highly ranked in terms of relocation need, it may not be prepared to relocate.⁷⁸

4 Potential Relocation Pathways under Existing Law

4.1 *Types of Relocation*

This section discusses alternative pathways for relocation that ANVs could take in the absence of a specific new law, agency, or funding dedicated to relocation. For ANVs that want to pursue co-relocation, the path of least legal resistance is to move to nearby land that is already owned by the village corporation (an entity affiliated with the community, which owns land in and around the community).⁷⁹ Provided that the ANV has a good relationship with the corporation, this option gives the community control over the site and avoids a veto by a federal agency. If a community is willing to relocate on its own, without

Challenges Facing the Denali Commission in Fiscal Year 2016'; (6 November 2015). It has been working with the help of detailees for specific projects. Interview with Shakira Mack, Attorney, Department of Transportation and Detailee to Denali Commission (10 November 2016).

76 In July 2017, the House Appropriations Subcommittee on Energy and Water Development, and Related Agencies approved its fiscal year (FY) 2018 spending bill, allocating \$11 million for the Denali Commission. NADO, 'House Appropriations Subcommittee on Energy and Water Development Advances FY2018 Spending Bill with Recommendations for Federal-State Regional Commissions' (July 7, 2017), <www.nado.org/house-appropriations-subcommittee-on-energy-and-water-development-advances-fy2018-spending-bill-with-recommendations-for-federal-state-regional-commissions/>.

77 Neimeyer, *supra* note 76.

78 Denali Commission recognizes that communities most in-need of relocation may not be prepared to do so, due to lack of community agreement on whether or where to move, lack of a plan for moving, and lack of 'site control' or ownership of the new site. In such cases, the Commission intends to work with communities in lesser need until those in greater need are prepared to move. *Ibid.*

79 ANCSA established for-profit Native corporations at a village and regional level. These corporations assumed ownership over a fraction of the traditional lands occupied by each tribe, and enabled municipalities associated with village sites to obtain some of these lands: 43 U.S.C. § 1613(c).

federally funded infrastructure, then it can avoid the long environmental reviews that have delayed Newtok.⁸⁰

An example of self-co-relocation is the Native Village of Nuiqsut. Residents moved to the site (selected by the village corporation shortly after ANCSA) and camped in tents over the winter of 1972–73.⁸¹ Community infrastructure came more gradually, sponsored by Nuiqsut's regional corporation and government entities. In another case, the Native Village of Point Hope moved around the same period due to erosion and storm-surge flooding. Houses were moved on runners to the new site, and the county-level government constructed some new housing.⁸²

Another model is Chenega Bay.⁸³ The original settlement was destroyed by the 1964 earthquake and tsunami, and survivors moved to Cordova. In 1977, after ANCSA and the formation of the Chenega Corporation, the latter selected lands at the old site. The corporation worked with the ANV to obtain funding for roads, a water and sewer system, electric generators, a boat and floatplane dock, and a school. Initially, the State of Alaska did not want to fund construction at the new site, because there was no-one living there. One resident built a one-room cabin for his family, laid the groundwork for a community master plan, and was eventually able to get infrastructure funding. The new community was finally inhabited in 1984 following the construction of 21 Housing and Urban Development houses.

The above-described strategy depends on the willingness of at least some residents to live in an unfinished community in order to make it a reality. This could be more appealing for communities that currently lack indoor plumbing than for those that have functioning systems. Because Alaska law requires the State to provide a school where there are at least ten school-age children,⁸⁴ a community willing to pursue this strategy should be able to secure a school

80 An example of an adaptation project that avoided NEPA review is the coastal berm built by Shaktoolik. Mayor Eugene Asicksik got grants from the regional development corporation for \$620,000. He bought dump trucks online and bought gravel from the village corporation. He hired local residents to build the berm. Terry Johnson, 'Climate Change Adaptation for an AtRisk Community: Shaktoolik, Alaska,' presented at the Alaska Center for Climate Assessment and Policy (9 September 2014).

81 See William Brown, Nuiqsut Heritage, A Cultural Plan (1979) 3; ASRC, 'Nuiqsut,' <www.asrc.com/Communities/Pages/Nuiqsut.aspx>.

82 North Slope Borough Hazard Mitigation Plan (2015) 5–39.

83 This paragraph is based on an interview with a Chenega Bay tribal citizen and Chenega Corporation, 'Faith, Fortitude and Perseverance: The Chenega Story,' <www.chenega.com/history>.

84 Alaska Stat. § 14.17.905, 14.17.450.

building with little-to-no cost to itself. In many communities, the school building serves as a community focal point⁸⁵ and can also serve as an emergency shelter.⁸⁶

A strategy related to co-relocation is what I call ‘conglomerated co-relocation’, where several ANVs collectively relocate to a new site (or adjacent sites connected by roads).⁸⁷ The ANVs could share a school, health clinic, and other infrastructure. Their willingness to share resources may increase the likelihood of government assistance for them, in contrast to a single community moving on its own. While this strategy may seem far-fetched, it is important to point out that ANVs have a history of cooperating, whether it involves pooling resources through a regional tribal housing authority,⁸⁸ merging village corporations,⁸⁹ or forming an ‘umbrella’ tribe to provide services.⁹⁰ With conglomerated co-relocation, the ANVs could retain their separate identities or consider forming a confederation at some point.⁹¹ While confederating may not be desirable for

85 Hannah Colton, ‘Proposed increase to minimum enrollment threatens funding for dozens of small schools,’ Alaska Public Media (26 October 2015) <www.alaskapublic.org/2015/10/26/proposed-increase-to-minimum-enrollment-threatens-funding-for-dozens-of-small-schools/>.

86 See, e.g., Kodiak Island Emergency Services Organization, Kodiak Area Emergency Preparedness Guide (2008) 11, <www.kodiakak.us/DocumentCenter/View/1517>.

87 A conglomerated co-relocation draws from the concept of the pre-colonial pattern of settlement on the Seward peninsula, consisting of large village with several small linguistically related villages located within a radius of 20 to 30 miles. The intervening territory was considered to belong to the village cluster for hunting and fishing. An important difference from modern day villages is that pre-colonial villages were inhabited in the winter, but not necessarily during the summer, and they were not dependent on Western-style infrastructure. Dorothy Jean Ray, ‘Nineteenth Century Settlement and Subsistence Patterns in Bering Strait,’ 2(2) *Arctic Anthropology*, 61, 61 (1964).

88 See Curyung Tribe, Housing Manager, <www.curyungtribe.com/housingmanager.html> (describing how Curyung Tribe participates in Bristol Bay Housing Authority).

89 Several village corporations merged with their regional corporation, including village corporations in the Northwest region that merged with the regional corporation NANA. There are also mergers of village corporations with each other, such as MTNT, Ltd. And Gana-A’Yoo, Limited.

90 An example is the Inupiat Community of the Arctic Slope, a federally recognized tribe formed in 1971 to administer some Bureau of Indian Affairs and Indian Health Service programs on behalf of other North Slope tribes that have retained their status as distinct sovereign entities. See ICAS, About us, <www.inupiatgov.com/?page_id=63>; BIA, Indian Entities Recognized and Eligible To Receive Services From the United States Bureau of Indian Affairs, 81 Fed. Reg. 5019 (29 January 2016).

91 A model could be the Confederated Tribes of the Salish and Kootenai, which came together to form a single federally recognized tribe. Confederated Salish and Kootenai

many tribes at this point in time, it may emerge as a long-term adaptation strategy given the difficulties for small tribes to have an empowered government. Confederations among tribes with similar cultures could draw on a larger pool of human resources and more easily increase capacity.⁹²

Conglomerated co-relocation has drawbacks, including the potential for disagreement, conflict, and competition among ANVs. The Newtok Council did consider a road connection to a nearby village with a large clinic, but opted against the road because of concern about competition in the hunting of limited subsistence resources.⁹³ The more people there are in the community, the farther out hunters most go, which is more expensive. This is a tradeoff that an ANV must consider as it weighs the pros and cons of staying in place or relocating. To minimize conflict, conglomerated co-relocation should only occur among culturally similar ANVs that want to pursue this strategy. Ideally, land would come from a merged village corporation or a regional corporation that serves all of the moving villages.

Some communities (such as Nulato, Allakaket, and Golovin) have the advantage of corporation-owned land on higher ground near the existing settlement. This can enable a gradual co-relocation without disrupting subsistence patterns or going without infrastructure. It can still be challenging to get a school built on the higher ground, due to school criteria which are weighted in favour of more populated locations.⁹⁴ Nulato started to move up an adjacent hill in the early 1980s, when a federal grant for new housing required the houses to be built out of the floodplain. Yet the school remains in the floodplain.⁹⁵

For communities that do not have suitable land to which to move, it should not take an Act of Congress for a one-off, small land transfer. It is not clear why the Newtok trade occurred in this manner. The federal government already has the authority to conduct a land trade under ANCSA, which allows

Tribes, History and Culture, <www.csktribes.org/history-and-culture>. The tribe maintains cultural advisory committees for each of the two founding tribes. Ibid.

92 Email from Jenny Bell-Jones, Professor Emeritus, University of Alaska-Fairbanks (1 January 2016).

93 Interview with Newtok resident.

94 Proximity is a criterion in school siting. 'Ideally, all students served by the school would be in convenient, safe walking distance to the site.' Proximity existing infrastructure, utility connections, and ease of transporting construction materials are also criteria that weigh in favor of construction at an existing site. On the other hand, proximity to future expansion and vulnerability to flooding, erosion, and permafrost degradation are also criteria that could weigh in favor of moving up hill. State of Alaska, Department of Education, *Site Selection Criteria and Evaluation Handbook* (2011).

95 Interview with Peter Demoski, Tribal Administrator, Nulato (21 November 2016).

the Secretaries of Interior, Defense, and Agriculture to exchange lands with ‘the corporations organized by Native groups, Village Corporations, Regional Corporations ... and other municipalities and corporations or individuals, the State ... or any Federal agency ... to facilitate the management or development of the land, or for other public purposes.’⁹⁶ The trade need not be on an equal basis, so an ANV could get a new site that is larger than the land it gives up.⁹⁷

As discussed above, many communities would like to avoid dispersed relocation. Yet already many families and individuals have left ANVs to live in urban settings for a variety of reasons. If more of this type of relocation occurs, state and federal government agencies (as well as regional tribal non-profit organizations based in urban settings) should be prepared to put more funding into existing social programs designed to address job training, housing, and food access for new arrivals.

Short of an unorganized, dispersed relocation, ANV residents may opt to move together to an existing hub community in proximity to the original site. This was true of Nuiqsut in the early 1900s, when residents left the current site for Utqiagvik/Barrow.⁹⁸ (They have since returned to the original site.) It was also true for Solomon, which has many residents in Nome. Solomon’s leadership would like to re-inhabit the original site if this were commercially viable.⁹⁹ The idea of relocating to a hub community like Nome or Utqiagvik/Barrow is not appealing to some ANVs,¹⁰⁰ as the ANV would have less control over its affairs, and members could face discrimination from the receiving community. Also, the relocating residents would likely face a competition for subsistence with residents in the larger receiving community—even more competition than in the case of conglomerated co-relocation. Still, this form of relocation would enable a tribe to stay together, avoid the immediate need for new infrastructure, and avoid some of the difficulties of having to assimilate into more urban, largely non-Native settings. As with dispersed relocation, state and federal agencies should be prepared to put more funding into social programs for new arrivals.

96 43 U.S.C. § 1621(f). The term ‘Native group’ includes tribe. 43 U.S.C. § 1602(d). ANILCA § 1302(a) and (h) (16 U.S.C. § 3192) provide similar authority.

97 Exchanges are generally on the basis of equal value, but when the ‘Secretary determines it is in the public interest, such exchanges may be made for other than equal value.’ 43 U.S.C. § 1621(f).

98 Brown, *supra* note 82.

99 Interview with Solomon tribal citizen.

100 Cox, *supra* note 66.

4.2 *Infrastructure Funding*

Not every community will be able to simply move its houses to a new site and begin anew. Most will rely on government support with infrastructure and housing, as they have for decades. But with oil revenues in decline, there is more and more competition for government support. Some agencies are starting to allocate resources based on need.¹⁰¹ All existing federal programs to facilitate relocation of buildings and construction of new infrastructure have their drawbacks, namely the lack of funding allocated by Congress. But relocation is far more likely to take place under these programs than under some yet-to-be-created-and-funded program.

Several federal agencies, including the Environmental Protection Agency and the Bureau of Indian Affairs provide funding for relocation and adaptation planning, but do not fund implementation.¹⁰² FEMA and the State of Alaska fund Hazard Mitigation Plans, which are useful to communities mainly as a means of receiving additional FEMA funding through the Hazard Mitigation Grant Program (HMGP).¹⁰³ HMGP is a post-disaster program aimed at preventing future disasters.¹⁰⁴ Whenever a federal disaster is declared in a state, FEMA allocates an additional amount of funding (generally 15 per cent of what was spent on the disaster) to this program.¹⁰⁵ The state is responsible for 25 per cent of HMGP funds, while FEMA provides 75 per cent.¹⁰⁶ Alaska's Disaster Policy Cabinet prioritizes applications based on federal regulations and guidelines, with a preference for applications from communities that were in the declared disaster areas.¹⁰⁷ The funds are co-managed by the State and FEMA.¹⁰⁸

Another FEMA program, the Pre-Disaster Mitigation Program (PDM),¹⁰⁹ can be used to move buildings outside of the disaster-declaration process.¹¹⁰ It provides for a broad array of pre-disaster hazard-mitigation measures that could theoretically include relocation.¹¹¹ But pre-disaster grant funding is

101 My research participants from the Denali Commission, ANTHC, and BIA described mechanisms for awarding grants based on need.

102 This statement is based on interviews with representatives of these agencies and an Internet search for available grants.

103 42 U.S.C. §5170c.

104 42 U.S.C. §5170c; 44 C.F.R. §206.436.

105 42 U.S.C. §5170c(a); 44 C.F.R. §206.432.

106 42 U.S.C. §5170c(a); 44 C.F.R. §206.432.

107 *Ibid.*

108 *Ibid.*

109 42 U.S.C. §5133.

110 42 U.S.C. §5133.

111 42 U.S.C. §5133(c).

insubstantial, highly competitive, and cannot easily be combined with other sources of funding.¹¹²

A third FEMA program, Flood Mitigation Assistance,¹¹³ could also be used to relocate buildings, but only if the community is participating in the National Flood Insurance Program (NFIP).¹¹⁴ Participation requires land jurisdiction to enforce flooding ordinances.¹¹⁵ Since ANVs do not have jurisdiction over tribal land, an ANV must participate through the incorporated municipality (if any) affiliated with the community.¹¹⁶ But FEMA can only fund measures that are considered cost-effective or are in the interest of NFIP.¹¹⁷ It would be hard for ANVs to meet the cost-effectiveness requirement of most grant programs, given their low populations and high construction costs.¹¹⁸

Beyond FEMA and the Army Corps of Engineers, there are several federal agencies that have assisted ANVs with flooding and erosion and could potentially provide funding for new buildings. One is the Department of Agriculture's Natural Resources Conservation Service (NRCS). One of its programs, the Watershed and Flood Prevention Program,¹¹⁹ supports measures that reduce or prevent flooding damage, including relocation of damageable property from

112 FEMA, 'FY 2015 Pre-Disaster Mitigation Grant Program Fact Sheet' (2005), <www.fema.gov/media-library-data/1432847398289-878c470e718239eedcaadc8d52ea1823/PDM_FactSheetFY2015.pdf>. For 2017, the amount is \$90 million for the whole nation. FEMA, FY 2017 Pre-Disaster Mitigation (PDM) Grant Program (2017), <www.fema.gov/media-library-data/1499868698311-25cdc5fcfb237df56a87da7cd7cc0717/PDM_FactSheet-for-FY_2017_508.pdf>.

113 42 U.S.C. §4104c. The Disaster Management Act of 2000 provided much of the framework for HGMP, PDM, and FMA. Pub. L. No. 106-390, 114 Stat. 1552 (2000).

114 44 C.F.R. §80.17(c)(1).

115 44 C.F.R. § 59.1 (definition of community).

116 FEMA, *The National Flood Insurance Program Community Status Book* (2016), <www.fema.gov/national-flood-insurance-program-community-status-book>.

117 44 C.F.R. §79.6(d), 44 C.F.R. §206.434(c). The National Flood Insurance Program (NFIP) was established in the National Flood Insurance Act of 1968, US Pub. L. No. 90-448, Title 13 (1968), 82 Stat. 476, codified as amended at 42 U.S.C. 4001-4129, to provide individual homeowners and renters with some insurance coverage for flood damage, as an alternative to disaster assistance. NFIP does not cover gradual erosion, although it does cover flood damage related to shoreline collapse or subsidence caused by sudden action (such as a flash flood or an abnormal tidal surge). 44 C.F.R. § 59.1.

118 GAO *supra* note 7, at 22.

119 Authorized by Flood Control Act of 1944, US Pub. L. No. 78-534 (1944), 58 Stat. 887, codified at 16 U.S.C. 460d and various sections of Titles 33 and 43 U.S.C.; US Pub. Law 83-566, 68 Stat. 666, codified at 16 U.S.C. 1001-1012; 7 C.F.R. Part 622.

the floodplain.¹²⁰ A project must directly benefit agriculture, which includes forestry and harvesting of wildlife.¹²¹ NRCS interprets ‘agricultural lands’ to include moose and salmon habitat.¹²² But the entity receiving assistance under this program must have the power to acquire any property rights needed for the project, and it must implement any zoning restrictions needed to maintain the project.¹²³ As discussed above, ANVs often lack the necessary jurisdiction over land. Another challenge is that, as of this writing, there is no funding for this program.¹²⁴

NRCS also administers the Emergency Watershed Protection Program (EWPP),¹²⁵ which can support relocation if NRCS considers this more feasible than other alternatives.¹²⁶ The land involved need not be agricultural; it could be wetlands or lands that provide habitat or affect water quality.¹²⁷ NRCS may provide assistance after a disaster declaration, in which case it coordinates the assistance with FEMA. Alternatively, NRCS may provide assistance when it determines that a watershed has been impaired to the point where there is an imminent threat to health, life, or property.¹²⁸ NRCS could therefore provide support for relocation outside of a declared disaster area under the EWPP, as long as Congress continues to fund this program.

Another source of funding for new infrastructure besides a disaster declaration could be the Department of Housing and Urban Development’s Indian Community Development Block Grant (ICDBG) program.¹²⁹ This provides assistance for housing and infrastructure acquisition, construction, and relocation of structures,¹³⁰ as well as for planning.¹³¹ Most ICDBG funds are

¹²⁰ NRCS, National Watershed Program Manual (2015) at 500.3(B)(i), 500.42(C).

¹²¹ US Pub. L. No. 83–566, § 1002, 68 Stat. 666 (1954); National Watershed Program Manual, *supra* note 121 at 500.4(3)(iii).

¹²² Interview with Scott Crockett, Assistant State Conservationist, NRCS (July 19, 2016).

¹²³ National Watershed Program Manual, *supra* note 121 at 500.11(1,7).

¹²⁴ Communication with Kevin Farmer, National Watershed Operations Program Manager, NRCS (2 February 2016).

¹²⁵ Authorized by Pub. L. No. 81–516 (1950), § 216, codified at 33 U.S.C. 701b-1; and P.L. 95–334, §§ 403–405, codified at 16 U.S.C. 2203–2205; 7 C.F.R. § 624.6; § 624.10. NRCS, ‘Emergency Watershed Protection Program,’ 2015, <www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/landscape/ewpp/>.

¹²⁶ Farmer, *supra* note 125.

¹²⁷ 7 C.F.R. § 624.8(c)(3)(iv).

¹²⁸ 7 C.F.R. § 624.4, 624.5.

¹²⁹ Authorized by the Housing and Community Development Act of 1974, Pub. L. No. 93–383, Title I, 88 Stat. 633–2, codified as amended at 42 U.S.C. 5301 et seq.; 24 C.F.R. Part 1003.

¹³⁰ 24 C.F.R. § 1003.201.

¹³¹ 24 C.F.R. § 1003.205.

distributed as annual ‘single purpose’ competitive grants.¹³² ICDBG also provides Imminent Threats Grants for problems that are not of a recurring nature and which represent a unique and unusual circumstance.¹³³ One limitation to ICDBG is that structures in 100-year floodplains must have flood insurance (which few ANV structures have),¹³⁴ although there are exemptions for imminent threat grants.¹³⁵ Thus, ICDBG may be a good option for relocating some structures in imminent danger of collapse or erosion where there is no disaster declaration. Like other Department of Housing and Urban Development programs, ICDBG is contingent on Congressional funding.¹³⁶

4.3 *A Role for Alaska Native Corporations*

Some have called on Native Corporations to do more to support ANV adaptation and relocation.¹³⁷ The standard response of corporations is that they are ‘for profit’, as required by their charters—they are thus not in a position to make charitable investments.¹³⁸ Yet some of these corporations are doing well enough to invest in business in other states and even overseas.¹³⁹ There is

132 24 C.F.R. § 1003.100.

133 24 C.F.R. 1003.400.

134 24 C.F.R. § 1003.605(a).

135 24 C.F.R. § 1003.605(b).

136 A related grant comes from the Community Development Block Grant (CDBG) program, which provides funding for housing, economic development, and other community development activities in low-income municipalities, including the relocation and building projects. Housing and Community Development Act of 1974 (codified in scattered sections of Titles 12 and 42 of the US Code); 24 C.F.R. 570.201. While many ANVs could be considered low-income, only the municipality associated with the ANV is eligible (not the tribe itself). Thus, an ANV that does not have an incorporated municipality would not be eligible. Another limitation is that funding may require flood insurance for projects in 100-year floodplains. 24 C.F.R. § 570.605. The amount CDBG provides is relatively small—less than \$3 million for the whole state, where up to \$850,000 can be received in one grant for infrastructure. Interview with Carma E. Reed, Director, Office of Community Planning and Development, HUD, Anchorage Field Office (8 November 2016).

137 This was stated by 12 people I interviewed, both from in the village and out of the village.

138 See, e.g., ‘Tales of Atlantis’, *The Economist*, 3 September 2015, <www.economist.com/news/united-states/21663265-presidents-visit-arctic-will-not-prevent-villages-sliding-sea-tales> (“They aren’t charities,” explains Julie Kitka, president of the Alaska Federation of Natives.’).

139 ‘Native corporations prove their mettle’, *Alaska Journal of Commerce* April (7 April 2001), <www.alaskajournal.com/community/2001-04-08/native-corporations-prove-their-mettle#.WWqBl4jysvg>.

nothing to stop them from investing in some form of local infrastructure, even if it just a grocery store, and even if the profits are lower than for other ventures.¹⁴⁰ Further, corporations could amend their articles of incorporation to include a purpose of providing for shareholder well-being, and then do more for the greater good of their shareholders.¹⁴¹ Such investment and action to protect shareholders seems more consistent with one of the original purposes of ANCSA, which was to avoid the situation of ANV members living in extreme poverty at the mercy of government welfare.¹⁴²

5 Suggested Pathway Forward

As long as ANVs wait for the state or federal government to assist them with co-relocation, they risk disaster, further deterioration of their infrastructure, and greater competition for limited funding with other communities that will become increasingly threatened by climate change. Even if funds were to suddenly materialize to move these ANVs, they would still face the existential problems of how to maintain an economy in remote locations with few job opportunities and (in many cases) declining subsistence opportunities. Rather than simply advocate for government-sponsored co-relocation, proponents of co-relocation and government decision-makers must engage communities in difficult conversations about the potential scenarios that could occur as

140 Some corporations have entered into contracts with state and federal governments to construct local infrastructure. See, e.g., sKW Eskimos, Portfolio, <<http://skweskimos.com/demonstrated-performance/portfolio/>>. I am advocating for direct investment in the community itself.

141 See Morgan Howard, 'Dividends do not define success for Alaska Native corporations' *Alaska Dispatch* (29 June 2016), <www.adn.com/commentary/article/dividends-do-not-define-success-alaska-native-corporations/2014/10/24/> (arguing for more group-oriented benefits as opposed to just individual shareholder benefits).

142 43 U.S.C. § 1601(b) (stating that the settlement of Alaska Native claims was to occur 'without creating a reservation system or lengthy wardship or trusteeship'); see also Berardi, *supra* note 12 at 92 ("Most framers of the Act, both non-Native and Native, saw the corporation model as the key instrument to help—and perhaps induce—Native groups to make the transition to a modern economic society."); Eric Chaffee, 'Business Organizations and Tribal Self-Determination: A Critical Reexamination of the Alaska Native Claims Settlement Act,' 25(1) *Alaska Law Review* 107, 126–27 (2008) ("Through the creation of Native corporations, Alaska Native communities are better equipped to develop natural resources, provide employment opportunities, and build needed infrastructure in remote areas of Alaska.').

climate change worsens and more communities are competing for the same limited resources. State and federal government agencies and ANVs should consider all relocation alternatives under the existing laws, from dispersion to co-relocation, along with feasible (low-cost) policy changes that could facilitate these alternatives.

While I am not recommending creation of a new law or agency to facilitate relocation, there are several areas where the State of Alaska and the US government could and should take action to fulfill their climate-justice obligations. The first is to determine whether an ANV will actually become uninhabitable, or whether its staying in place is a viable alternative. It is important to emphasize that the determinations of the US Government Accountability Office and Army Corps of Engineers regarding erosion threat have not been based on actual erosion measurements or studies of floods. All coastlines have patterns of erosion and accretion, and in some (but not all) situations maintaining a setback from the shoreline can avoid destruction of buildings.¹⁴³ In some cases, it may be possible to build up storm buffers or redirect sediment movement, and allow the community to gradually retreat from the coast.¹⁴⁴ If a study performed by qualified coastal engineers with community input¹⁴⁵ determines that staying in place is feasible, this might be the most viable alternative.

The second area for action concerns land for a new site. Not all communities have land on which to relocate, and many may seek federally owned land (which constitutes 61.3 per cent of all land ownership in Alaska¹⁴⁶). As mentioned above, ANCSA and subsequent legislation (the Alaska National Interests Lands Conservation Act or ANILCA) already provide for uneven land trades, though such trades may depend on the attitudes of people currently staffing the federal agencies. To fulfil climate-justice obligations and acknowledge the constraints that ANCSA has imposed on adaptive capacity, the federal

143 This statement is based on my interview with Ruth Carter, former coastal engineer for the Alaska Department of Transportation and Public Facilities (27 January 2017).

144 Sexauer, *supra* note 48; Personal Communication with Harvey Smith, former coastal engineer for the Alaska Department of Transportation and Public Facilities (5 August 2016). An evacuation mound (a built-up plateau where people can camp temporarily) could be built at the original site until retreat takes place. *Ibid*.

145 ANVs such as Togiak are already using relatively simple schemes (time-lapse cameras) to measure gradual erosion, although this cannot measure or predict the episodic erosion that many ANVs experience due to storms. Interview with Anita Atakitlig, Environmental Coordinator, Togiak Tribe (22 July 2016).

146 Laura A. Hanson, Carla N. Argueta, and Carol Hardy Vincent 'Federal Land Ownership: Overview and Data,' Congressional Research Service (3 March 2017) 7.

government should simply *give* land to ANVs in certain situations.¹⁴⁷ The Alaska Congressional delegation should seek to amend ANILCA to enable the transfer a certain acreage of land (dependent on ANV population) to any ANV that has a written plan to relocate and is willing to survey and build on the new site within five years. Parcels of land that are especially environmentally sensitive (such as lands designated by the US Congress as Wilderness¹⁴⁸) could be exempt. The amendment could specify allocation of this land between the ANV and any associated municipal entity or village corporation. The amendment could also provide ANVs with the option to immediately place the transferred land into trust to avoid the potential of alienation of ‘fee simple’ land.¹⁴⁹ Trust status would give ANVs the jurisdiction needed to participate in federal programs such as NFIP.

The third area for action concerns existing programs that fund infrastructure and rebuilding. The Alaska Congressional delegation should seek exemptions to labour and construction laws that are difficult to fulfil in remote Alaska and that eliminate opportunities for local labour and materials.¹⁵⁰ This could help de-colonize the relocation process and give residents a sense of ownership in their new homes and infrastructure. One model is the ‘mutual-help program’ used by the Alaska State Housing Authority in the Native Village of

147 Given that the State of Alaska also has climate justice responsibility, it, too, should consider a mechanism for transferring state land to relocating ANVs. This suggestion may be less feasible than the suggestion to transfer federal land to ANVs, given the historically strained relationship between the State of Alaska and tribes (i.e., the lack of formal recognition of tribes).

148 Wilderness Act of 1964, US Pub. L. No. 88–577, 78 Stat. 890 (codified at 16 U.S.C. §§ 1131–1136 (2012)).

149 A US Tribe can ask the Bureau of Indian Affairs to place the Tribe’s fee-simple land in ‘trust’ status, which gives the Tribe more jurisdiction over the land and makes alienation more difficult. 25 C.F.R. § 151.1. This option is now available for ANVs. *Akiachak Native Community v. Jewell*, 995 F. Supp. 2d 1 (D.D.C. 2013).

150 See labor laws cited in note 33, *supra*, and FEMA construction standards, e.g. FEMA, ‘Addendum: Additional Project Guidance—Mitigation Reconstruction’ (2015) 65 (“Mitigation reconstruction projects shall be designed and constructed to the minimum standard as established by the requirements of the 2009 International Codes, or latest edition. Structures, including all parts and appurtenances, shall be designed and constructed to safely.”) The Uniform Relocation Act and its regulations require that government provide relocated residents with comparable housing, 42 U.S.C. 4626(b); 49 CFR § 24.204, but this law does not apply to voluntary relocations such as the ANV co-relocations discussed in this article.

Minto relocation in the 1970s. The program required prospective home-owners to help with the construction of their home and provided training for them to do so.¹⁵¹

Further, grant-supported infrastructure should be required to incorporate what has already been learned about Alaska-appropriate and small-scale infrastructure through entities such as the Alaska Native Tribal Health Consortium and the Cold Climate Housing Research Center in cooperation with ANV residents.¹⁵² This incorporation should result in homes that use composting or incinerating toilets¹⁵³ and do not require thousands of dollars in heating-oil each year.

Another way to facilitate infrastructure building and relocation would be for FEMA to promulgate regulations to expedite and streamline environmental and historical review if assistance under the Hazard Mitigation Grant program.¹⁵⁴ The Stafford Act already provides authority for an expedited process.¹⁵⁵

The fourth area for action concerns the land and subsistence rights of relocating residents and entities. Subsistence knowledge and skills are learned over time and may not easily transfer to a new location.¹⁵⁶ The ANILCA amendment proposed above regarding land transfers should provide relocating residents with a right of access to traverse public lands in order to connect to the old village site. Legislation should also address the relocated residents' rights to practice subsistence at and around the new site.¹⁵⁷ For instance, if the new site is located within a National Park or in an area considered 'urban' by the Federal Subsistence Board, or 'non-subsistence' by the State Board of Game,

151 James Bradley Haynes, *Consequences of Unplanned Community Development: Minto, Alaska* Michigan State University (1974) 38.

152 E.g., CCHRC, Newtok Relocation Project Page, <www.cchrc.org/newtok-relocation>; ANTHC, Portable Alternative Sanitation System, Final Report, Kivalina, Alaska, (2017) <<https://anthc.org/wp-content/uploads/2016/01/Kivalina-Report-E-Version.pdf>>.

153 The current alternatives are standard flush toilets in a village like Kaktovik, which cost nearly a million dollars per household, or 'honey-buckets' and outhouses in a village like Allakaket.

154 This refers to environmental review under NEPA, 42 U.S.C. § 4332(C), and historical review under the National Historic Preservation Act, 16 U.S.C. 470f.

155 42 U.S.C. 5170c(d)(1).

156 Bell-Jones, *supra* note 93.

157 The subsistence regime in Alaska is highly complex, as it is regulated by both state and federal agencies with different provisions depending on the land owner/manager and its status as urban or rural. See Ristroph, *supra* note 22 at 73–75. In short, federal agencies do not regulate subsistence on non-federal lands, so both federal and state legislation would be needed.

subsistence rights might be more limited than at the old site.¹⁵⁸ Legislation could be used to ‘grandfather’ subsistence rights from the previous location to the new location.¹⁵⁹ This could also apply to commercial fishing rights enjoyed by ANVs that participate in the Community Development Quota program.¹⁶⁰

A fifth area for action is the disposition of the old site. Not every resident of an ANV will be willing to relocate, and no one should be forced to do so. At a minimum, most residents will likely want to be entitled to return to the original site, if only for subsistence purposes. But for FEMA-assisted building relocations out of floodplains, structures must be removed from the old site.¹⁶¹ Congress could amend this requirement to allow residents to continue using existing buildings, so long as they do not construct new homes or make significant renovations. The amendment could allow residents to build new structures to serve as subsistence shelters if the structures meet standards for buildings in floodplains (i.e. elevation and ability to withstand a storm surge).¹⁶²

A question remains as to the government’s obligation to support infrastructure and services, such as water treatment and a health clinic once an ANV has decided to move. As discussed above, this is a significant challenge for ANVs that have announced their intention to move but will not do so for many years. There is a need for an executive order or agency guideline to establish criteria for state and federal investment in the original site. These criteria, based on input from ANVs, could identify which facilities or repairs are considered ‘critical’ (i.e. needed for basic health and safety). The criteria would provide a threshold for how long the state or federal government will continue to provide critical

158 E. Barrett Ristoph and Anwar Hussain ‘Wilderness: Good for Alaska Legal and Economic Perspectives on Alaska’s Wilderness,’ 4(2) *Washington Journal of Environmental Law and Policy* 424, 426–433 (2015) (explaining the different subsistence rights on each type of federal public land).

159 Federal law provides a subsistence preference to rural residents. ANILCA §801, 16 U.S.C. § 3111, 3114; ANILCA §804, 16 U.S.C. § 3114. State law divides non-federal lands into subsistence areas and nonsubsistence areas. A.S. §16.05.258(c); 5 AAC 99.015. In State areas identified as ‘nonsubsistence areas’, no subsistence use is permitted, even in times of scarcity. A.S. §16.05.258(c); 5 AAC 99.015.

160 The Magnuson-Stevens Act lists the eligible villages by name. 16 U.S.C. §1855 (i)(1)(D). All are roughly within 50 miles from the coastline, but the Act says nothing about the distance. If a village moves and retains its name, no change to the Act would be required.

161 42 U.S.C. § 5170c(b)(2)(B); 44 C.F.R. § 80.19. Designated space for subsistence activities should not be incompatible with this requirement. Interview with Scott Nelsen, GIS Analyst and former HMGP Manager State of Alaska Department of Homeland Security and Emergency Management (15 December 2016).

162 These standards could be the same or similar to NFIP standards such as 44 CFR 60.5, even if the community in question does not participate in NFIP.

facilities at the old site before it shifts to providing these at the new site (for example, the threshold could be when at least 50 per cent of residents have relocated). Once the threshold is reached, the criteria could limit investment to emergency services and portable infrastructure that could be moved to the new site. Another threshold (such as the point in time when surveying of the new site is complete) could be the trigger for state or federal government investment in the new site.¹⁶³

It has been pointed out to me that the US Congress could eliminate many relocation obstacles simply by expanding the Stafford Act to include 'erosion' and even 'climate change' in the definition of disaster.¹⁶⁴ FEMA is not likely to support such an amendment, as it could 'open the floodgates' for disaster declarations that FEMA could not afford to address.¹⁶⁵ If Congress were to amend the Act, it may need to raise the threshold for disaster declarations.¹⁶⁶

Finally, it is important to emphasize that past ANV relocations have occurred primarily due to economic challenges (e.g. the collapse of the mining or fur industry) rather than environmental conditions.¹⁶⁷ Any new location will need to be economically viable, and residents should consider the pros and cons of road connections.¹⁶⁸ Co-relocation without attention to the sustainability,

163 State Order 224 (2005) has been interpreted to disallow spending at new site unless relocation is congressionally directed.

164 42 U.S.C. § 5122. Several of my research participants noted this in regard to Newtok and Kivalina, and this policy recommendation appears in Robin Bronen and F. Stuart Chapin, 'Adaptive Governance and Institutional Strategies for Climate-Induced Community Relocations in Alaska', 110(23) *Proceedings of the National Academy of Sciences* 9320, 9324 (2013).

165 These are the words of one FEMA interviewee. Some interviewees outside of FEMA had similar comments.

166 For example, it could require FEMA (through a public review process) to establish criteria for when erosion and climate change have reached a threshold of making a community uninhabitable. Such a threshold would be useful even if the definition of 'disaster' is not expanded, since currently there are no specific criteria for declaring a disaster. FEMA's criterion relevant to disasters simply specifies when public and individual financial assistance is warranted; see 44 C.F.R. § 206.48, and Bronen, *supra* note 44 at 399, suggesting criteria for a relocation threshold.

167 See Alaska Division of Community and Regional Affairs, *supra* note 14. See also Hamilton et al., *supra* note 23 (based on a study of 43 coastal communities in western and northern Alaska, the authors did not find any 'climigration' (migration due to climate change)).

168 Rachel E. Luft, 'Governing Disaster: The Politics of Tribal Sovereignty in the Context of (Un)natural Disaster', 39(5) *Ethnic and Racial Studies* 802, 816 (2016).

public health, and social well-being of communities in remote, isolated locations is neither a just nor practical solution.¹⁶⁹

6 Conclusion

ANVs face many threats, from social and economic challenges to the potential for total inundation. ANVs have contributed little to the forces accelerating flooding and erosion, yet feel the impacts more than many other communities. Given the federal government's responsibility in settling many villages in unsustainable locations and reducing access to resources needed for adaptation, climate justice suggests a federal role to assist ANVs in leading their relocations. Since the state government (like the federal government) has benefited from industrial development that is now contributing to climate change, and since the state plays a critical role in infrastructure provision and subsistence regulation, it should also be involved.

But the federal- and state-sponsored relocation currently under way may not be the best solution. It can have the effect of prolonging Western colonial patterns of settlement, where government agencies dictate where and how settlement takes place and residents have little 'ownership' stake in the new sites. It is hugely expensive, takes decades, and is not likely to garner funding for ANV relocations other than that of Newtok. This leaves other ANVs with false hopes that can delay community-driven solutions.

There are already a number of alternatives to the kind of relocation that villages such as Newtok, Kivalina, and Shishmaref are pursuing, and many programs to provide for moving and rebuilding. Rather than create a new law or agency and hope for funding, there is a need to fund existing programs and ensure that ANVs are aware of their options (including the required cost-contributions for each program and how long they take). There is also a need for law reform to facilitate land transfer, provide for subsistence rights, and address the disposition of the old site. Finally, to ensure climate justice, government agencies must not ignore the long-term social and economic well-being of new settlements.

ANVs have adapted to obstacles for thousands of years, including Western colonization. Fast-moving climate change is simply the latest challenge to befall ANVs. Given a legal pathway to do so, ANVs may continue to adapt for thousands of years to come.

169 Ford et al., *supra* note 13, at 187.