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Jarred Haynes

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SOCIAL AND CULTURAL VALUES IN ALASKAN SUBSISTENCE MANAGEMENT:
RURALITY AND THE MEANING OF “MEANINGFUL” NATURAL RESOURCE
MANAGEMENT

Jarred S Haynes

A Capstone Paper submitted in partial fulfillment of the requirements for a Master of Arts in
Development Practice at SIT Graduate Institute in Brattleboro, Vermont, USA.

August 9, 2023

Advisor: Joseph Lanning, PhD

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ABSTRACT:

In Alaska, subsistence is a way of life for some communities. The Federal Subsistence Board (FSB) oversees the Federal Subsistence Management Program. One of its responsibilities is to determine areas as subsistence or non-subsistence areas. This decision, in part, is based on whether subsistence is a “principal characteristic of the economy, culture, and way of life”. (James A. Fall, Division of Subsistence, 2018). The federal policy grants these communities priority in the taking of wild resources (Title VIII of the Alaska National Interests Lands Conservation Act). Interviews revealed factors of vulnerability and resilience, specifically in the context of subsistence. Scoones (1998) defines resilience simply as the capability of a person and their livelihood to “cope with and recover from stresses and shocks.” Kirmayer et al. (2011) further define resilience in a cultural context as the “ability to do well despite adversity.”

Interview findings revealed food insecurity in Ketchikan due to a lack of local production and unreliable supply lines from the lower 48 states. Further, some respondents mentioned uncertainty of supply longevity in grocery store shelves due to increases in tourist activity during the summer season. Priority harvest can serve as a livelihood supplement, buffering against food insecurity and creating strong social networks. It can also serve as a medium for the transmission of cultural values and practices. This research asks what role subsistence plays in an isolated, mixed community of Alaska Natives and non-Natives in Southeast Alaska, what pressures they experience on their livelihoods and the potential that a rural determination and subsistence priority have in sustaining quasi-rural livelihoods.

Keywords: Subsistence management, Alaska Natives, access, resilience, rurality, Ketchikan, food security,

INTRODUCTION:

Through June 2023, I observed and experienced the generosity, hospitality, and communal values of the Ketchikan Indian Community (KIC) and non-Alaska Native Ketchikan community. On my second day in town, I was invited to a community canoe launch. Plates full of herring egg salads, salmon sandwiches, beach asparagus, hamburgers, and fruits were passed out to a long line of hungry attendees. I heard moving songs and prayers; I was privileged to witness an intimate ceremony and canoe awakening. I saw a community lift a 20-foot-long canoe and carry it across Tongass Avenue to the harbor for its maiden voyage. I saw that the values of family and community are held dear by the community, and the mechanism for this is the sharing of food and quality time. I was gifted salmon filets and halibut; I was shown historical fishing campsites and was moved by the way tradition and history weave through modern life.

One day, when I was sitting along the waterfront, a man approached me in a wheelchair. He told me he was suffering from a recent stroke and his memory was failing him. He told me he had both legs amputated due to health complications and he lived in the local shelter for the houseless. He was once a linguist interpreter for the military. He further told me he was bringing smoked salmon to his Native friend for his birthday... “This means a lot to them” (personal communication, June 2023). His sense of generosity and sharing will forever be a symbol of Ketchikan’s community for me. A few days later, after shopping at Safeway, I waited outside at the bus stop. Inside the bus stop was a woman resting on her walker. I came to learn that she is Tsimshian and originally from Metlakatla, but her mother is ill and in the hospital in Ketchikan. She had been staying at the houseless shelter for a while by this time. As the bus approached, I realized my time was drawing short. I reached into one of my grocery bags and pulled out some fruit. I offered her bananas and apples. She took two bananas. I apologized that I could not offer more, but her face softened, and she said, “this means a lot to me.” The simple act of sharing traditional or even non-traditional foods in Ketchikan is a symbolic gesture of camaraderie and connection. It is much more than the sourcing of food or materials for crafts. It is the manifestation of a community’s togetherness and goodwill.

Introduction to Ketchikan

This research examines how subsistence benefits the Ketchikan community, how it supports their livelihoods, and how a rural determination can contribute to resilient livelihoods. This research is not an evaluation of Ketchikan's rural or nonrural nature but rather highlights potential threats to subsistence livelihoods e.g., food insecurity, resource privatization, tourist infiltration, and how important subsistence is to community cohesion and sense of place, which Kirmayer et al. (2011) find to be especially important aspects of resilience in Native communities. While this research does center around resilience in an Alaska Native context, these facets of vulnerability and resilience often apply to non-Alaska Natives who live in the same context.

In 2022 the Ketchikan Indian Community of Ketchikan, AK proposed to the Federal Subsistence Board (FSB) to be considered as a rural community and have recognized subsistence harvest priority. Tony Gallegos, the natural resources director for the Ketchikan Indian Community (KIC) states the community is losing its connection to its traditional foods, like ooligan. “What does ooligan taste like?” He asked the Board. “We’re losing that...connection.” (Scott Bowlen, Ketchikan Daily News). John Smith of Juneau offers a sympathetic tone: “I hear [from] Ketchikan...that they need this healing. So, I really believe this is important”. The proposal comes from the office of Trixie Bennett, the former President of the Ketchikan Indian Community, as part of her mission to increase access to traditional foods for her community. She argues that subsistence “helps sustain not only the physical but the spiritual culture of Alaska Native people... this is an important tradition for many non-Natives as well.” She states that the best programs the KIC has are those that bring their people together around food and on the land.

Subsistence hunting and fishing in Alaska are managed by the Federal Subsistence Management Program. The Subsistence Management Program is housed within the US Department of the Interior (DOI) and collaborates with the US Department of Agriculture (USDA). The Federal Subsistence Board (the Board) is the figurehead of the program and works closely with six Regional Advisory Councils (RACs) that provide a space for community input on management decisions. The Office of Subsistence Management (OSM) is housed within the US Fish and Wildlife Service (USFWS) and acts in an advisory and administrative capacity to the Board and the RACs. The Subsistence Management Program strives to provide a subsistence lifestyle for rural Alaskans on Federal lands and waters, meaning longer harvest seasons and higher bag limits. The caveat is those who do not live in communities or areas determined as

rural by the FSB cannot hunt and fish in a subsistence manner, they are limited to State regulations, which are often more restricting. There are currently nine areas in Alaska determined to be nonrural (urban): Anchorage, Fairbanks, Wasilla/Palmer, Juneau, Valdez, Homer, Seward, Kenai, and Ketchikan. This means they lack the harvest priority afforded to rural areas (US Department of the Interior). The Subsistence Management Program is a product of the Alaska National Interests Lands Conservation Act which I discuss in detail further below.

Research Setting

Commercial fisheries, an airport, and tourist-oriented development have given Ketchikan the outward appearance of a small, developed port town with bars, outlet stores, a few cafes, and numerous jewelry stores that line Front Street which comprises the waterfront where most cruise ships dock and tourists flock to the memorial statues and "Welcome to Ketchikan!" signs.

One Reuter's article describes the overwhelming influx of tourists on Ketchikan's "already crowded road system." It further highlights local concerns for tourist cruise ships as having the potential to "strain overtaxed infrastructure and threaten the cove's marine life," (Saul Elbein, Reuters 2020). This is reflected in interview responses in the results section. For some, the sudden change in Ketchikan's economic portfolio and cultural fabric has been unsettling. "We had shoe stores in Ketchikan. We had work clothes stores in Ketchikan... They're all gone," (Melissa Block, NPR). Many of these original shops have been replaced with jewelry stores, souvenir shops, and other shops seemingly designed to attract tourist attention. Some of these, according to the same article, are owned by or associated with the cruise companies themselves.

While the tourist industry has offered employment to some locals and many non-local seasonal workers, it can put further pressure on the city's limited public services and infrastructure. Downtown's roads become impassable, tourists crowd the sidewalks and weave in between cars as they cross the waterfront's one main road. Crossing guards do their utmost to herd them onto crosswalks. Motorists seem accustomed to this ambulatory chaos, stopping when throngs of people wait to cross the road. The overwhelmingness of Ketchikan's downtown was a nearly everyday event in my time in the community. A minimum of two to three cruise ships a day, per my observation, dock on the waterfront.

LITERATURE REVIEW:

Alaska Native Claims and Settlement Act

In 1959, Alaska became a state and obtained 41.7 million hectares of land from the federal government. This re-ignited issues with Native land claims that had been in progress since the Tlingit people of Southeast Alaska asserted their rights to the land when the US purchased Alaska from Russia in 1867. The 1971 Alaska Native Claims and Settlement Act (ANCSA) was legislated to settle ancestral land claims once and for all. Land claim lawsuits interfered with Alaskan State development and so ANCSA was legislated to settle conflict and allow for economic development to commence. The settlement act abolished all Alaska Native ancestral legal claims to Alaskan lands and waters, including their innate claim to hunt and fish Alaskan lands and waters. In exchange, 17.8 million of Alaska's 152 million hectares of land and just under 1 billion US dollars were granted to Alaska Native regional and village corporations (Berardi 1998).

Nine years after ANCSA was passed, Congress passed the Alaska National Interests Lands Conservation Act (ANILCA) program which integrated over 100 million acres of federal land into conservation units. Title VIII of ANILCA also stipulated a priority for subsistence taking of fish and wildlife on federal lands for residents of areas designated as rural by the FSB.

Alaska National Interests Lands Conservation Act

§801 of ANILCA recognizes and declares that the continuation of subsistence is “essential to Native physical, economic, traditional, and cultural existence” and to “non-Native physical, economic, and social existence.” It is understood that in many rural contexts “no practical alternative means are available” to replace subsistence resources. ANILCA defines subsistence as the:

“Customary and traditional uses by rural Alaska residents of wild renewable resources for direct personal or family consumption as food, shelter, fuel, clothing, tools, or transportation; for the making and selling of handicraft articles out of nonedible byproducts of

fish and wildlife resources taken for personal or family consumption; for barter, or sharing for personal or family consumption; and for customary trade.” (Title VIII §803 ANILCA)

Further, §801(3) directly acknowledges that subsistence practices are threatened by increasing populations, increased accessibility of remote areas, and irresponsible taking of fish and wildlife in a manner "inconsistent with recognized principles of fish and wildlife management." §801(4) emphasizes Congress' responsibility to "fulfill the policies and purposes of the Alaska Native Claims and Settlement Act...to protect and provide the opportunity for subsistence uses on the public lands by Native and non-Native rural residents." While ANILCA does not set a *Native* subsistence priority, it does refer to Congress' responsibility to fulfill the guaranteed protection of Native subsistence in Alaska. This responsibility has been enshrined through generations of treaties, laws, and discourse with federally recognized Tribal Nations that now comprise Federal Indian Law.

§804 details the preference, or priority, of subsistence taking of fish and wildlife on federal lands: "*the taking on public lands of fish and wildlife for non-wasteful subsistence uses shall be accorded over the taking on such lands of fish and wildlife for other purposes*". Subsistence harvesters are ostensibly given higher bag limits and longer hunting seasons compared to recreational and commercial hunting and fishing. Subsistence priority was based on three criteria in addition to rural status: 1) livelihood dependence on species populations, 2) local residency, 3) and the availability of other resources.

§805 establishes six subsistence regions within Alaska and regional advisory councils (RACs) within those regions. These RACs are to be comprised of residents and are charged with the evaluation of proposals for changes to subsistence policies and practices, providing an open space for local opinion, and encouraging local participation in subsistence management decision-making.

Before 2015, the Board used a set list of measurable criteria developed by Wolfe & Fischer (2003) to determine an area's rural status. The Board started a revision of this process in 2009 at the instruction of the Secretary of the Interior and Secretary of Agriculture. The process lasted about a year and received numerous public comments: 278 public comments from individuals, 137 comments from members of the RACs, 37 Alaska Native comments, and 25 comments from other entities like municipal governments. The Board also consulted Alaska

Native corporations and communities. Comments suggested the population criteria were one-sided and population data is not an accurate measure of rurality. The Board then recommended to the Secretary of the Interior and Secretary of Agriculture that the process be simplified to a *nonrural* determination process to, instead of determining which areas are rural (the majority of Alaska), it would be more practical to determine nonrural (urban) areas (Federal Subsistence Board 2017).

Federal Subsistence Policy Consultation Report Summary

The FSB's 2022 consultation report summarizes suggestions made by Alaska Native communities regarding federal cooperation with Alaska Native subsistence communities, especially regarding climate change. Commenters were asked questions such as: a) How has climate change affected subsistence? b) What changes can be made to existing policies and regulations to help you adapt to changes caused by climate change? c) How can federal agencies better cooperate with Alaska Native communities to both protect subsistence harvest and meet conservation goals?

Suggestions were made that suggested the need for improved consideration of community and culturally held values and practices, which is supported by this research. Commenters suggested increased Tribal representation in management groups like the RACs, FSB, and the North Pacific Fisheries Management Council (NPFMC) by designating Tribal seats on the councils. Another notable recommendation was to increase collaboration and co-management outside of marine species. The Marine Mammal Protection Act (MMPA) has specific rules and stipulations for Alaska Native harvesters to sustainably continue their traditional hunts and harvesting of marine species. The MMPA allows NOAA fisheries and the Fish and Wildlife Service (FWS) to enter specific agreements with Alaska Native entities to co-manage marine species and collaborate in species monitoring and evaluation. This model of co-management should be further investigated in the context of rural/nonrural Alaska Native subsistence communities.

The need for culturally sensitive decision-making is demonstrated by comments in the 2022 Federal Subsistence Policy Consultation Summary Report. To address gaps in decision-making, Tsiouvalas et al. (2022) suggest stakeholder integration as a step forward in unifying

resource interests in the name of sustainability. By incorporating stakeholder representatives from commercial, community, political, and other relevant sectors into existing management groups, the interests of respective stakeholders can meet on a common ground in which each voice is heard with equal authority. This diverse group of stakeholders is a form of management congruent with Winther et al. (2020)'s integrated management model.

An important notion discussed in resource management literature is the role Indigenous communities and rural subsistence communities can play in wild resource management. Cisneros-Montemayor et al. (2019) note that development and natural resource management literature often hyper-focus on technical logistical aspects of development and wildlife conservation. This perspective contributes to the disregard of the social-ecological aspects of subsistence. For socially equitable and ecologically sustainable management of Alaskan resources, local values and voices should be integrated into management groups with an authoritative role (Tsiouvalas et al. 2022, Bennett 2009). This may look like designating an equal number of seats on RACs and the FSB for relevant stakeholders and doing the utmost to incentivize participation in these meetings, particularly by ensuring remote communities can access meeting venues.

The Role of Traditional Knowledge in Sustainable Resource Management

Socially equitable resource management entails the integration of the full range of traditional values and practices in an area. These must be integrated into decision-making processes (Rayond-Yakoubian et al. 2017, Kendall Jr. et al. 2017). Traditional knowledge entails unique insights into how wild resources are used, observations from the field, and intimate relationships between subsistence harvesters and the environment. These alternative perspectives are increasingly important in the context of climate change and accompanying changes in social-ecosystem dynamics. Further, community dependence on wild resources should be considered from a mixed-livelihoods perspective to account for the inventory of resources a community has access to but also barriers such as the quality and consistency of those resources.

A necessary but complicated measure for equitable development and resource management is the consideration of traditional knowledge systems and perspectives in decision-making processes (Rayond-Yakoubian et al. 2017, Kendall Jr. et al. 2017). Traditional

knowledge can offer specific insights and alternative explanations for data analysis and research questions. These alternative perspectives are increasingly important in the context of ecosystem change and accompanying changes in social-ecosystem dynamics. The United Nations Department of Economic and Social Affairs (UNDESA) has recognized the "crucial role" of traditional knowledge in achieving Sustainable Development Goals (SDGs). In 2019, UNDESA interviewed the then Chief Secretariat of the UN Permanent Forum on Indigenous Issues, Chandra Roy-Henriksen. Roy-Henriksen spoke candidly stating "centuries of history of discrimination, exploitation, dispossession, and colonization" have left traditional knowledge at veritable risk. Traditional knowledge, she claims, is invaluable in addressing "climate change, food insecurity, [and in] reducing inequalities". Subsistence harvesting in SE Alaska allows rural community members to supplement their diet with wild animal proteins, reducing the financial burden of purchasing expensive groceries. Secondly, subsistence allows Alaska Native communities to cultivate independence through livelihood diversification. Thirdly, subsistence allows age-old teaching and values to continue to be passed down through generations, a step towards remedying centuries of cultural erasure and dispossession. The implicit tie between Alaskan Native subsistence hunters and subsistence wildlife populations necessitates meaningful collaboration in decision-making.

Subsistence in the Context of Resilience and Vulnerability

This research examines how subsistence serves as a tool for social-cultural sustainability. This entails understanding how the privatization and limitation of cultural resources can affect factors of resilience such as community cohesion, food security, and independence.

Economic Dependence on Wild Resources: this is an important factor of resilience in SE Alaskan communities as gas and grocery prices surge due to inflation and gas prices. Since 95% of groceries are brought in by plane, this adds between \$.60-1.00 per pound of food (Carothers, 2015, Meter & Goldenberg 2014). In addition, stores typically carry three to five days of food supplies at a time (Andrews 2016). Thus, access to subsistence resources - especially wild proteins - is a significant part of Alaskan diets in communities with or without grocery stores.

Changing Property Rights: Since the introduction of capitalist resource harvest, multiple authors have documented changes in Alaskan fishing community social structures and norms

(Langdon 1989, Holen 2014, Carothers 2015). Commercial fisheries have shifted focus in some systems from collective subsistence to that of the individual and household. In a study of three rural Alaskan communities, Holen finds that younger generations do not participate as much in the subsistence harvest and processing of fish. Carothers finds that limited entry to commercial fisheries can have "divisive, negative impacts" on subsistence systems and communities. She finds that privatization is "disproportionately impacting" next-generation fishers as entry into commercial fisheries becomes dependent on financial capital. Values of hard work met with rewards become fishers needing "to be 'made'". "Fishing used to be about hard work," now you must "have a rich dad or uncle" (Carothers 2015, p. 3). Langdon also finds that in 1975 elderly Tlingit and Haida fishermen could not continue to harvest fish. He finds that the older generation "felt no responsibility" to keep permits in the family, as they perceived the younger generation as unequipped to continue the family fishery. Moreover, those that lacked the financial capital to pay for those limited entry permits were often left out of the game. Thus, dramatically decreasing the number of permits held in rural communities, severing generational lines of fishers and the skills and knowledge associated with them.

Autonomy and Independence: Using an Indigenous framework, Kirmayer and colleagues (2011) offer insight into resilience demonstrated through self-reliance. They posit that resilience at the family and community level can lie in the integrity of interpersonal relationships and extended support networks. The Métis people of Canada are Indigenous people with a mixed heritage of French and First Nations. They are dispersed throughout Canada and their physical separateness has created a sense of "self-reliance, autonomy, and independence"—an important aspect of their resilience as a people (Kirmayer et al. 2011, p. 87). They have a Michif word (a mix of French and Cree) "débrouillard" that can roughly be translated to "resourceful". This means that one must be able to use the resources at hand to achieve an intended outcome. Relating this to Alaska, many rural and Alaska Native communities are incredibly remote; transportation in and out is primarily by boat or plane, as it is in Ketchikan. The ability to use one's resources effectively is essential to the well-being of the individual and community at large. One respondent noted that sustainability through independence is a veritable value in the Ketchikan community and thus, a key component of sustainable resilience in Ketchikan is access to wild foods and resources.

Implications of Limited Subsistence Access: While hardships regarding cultural permanence and access to traditional foods are not limited to Native populations, they can be disproportionately affected, as documented in several studies (Burnette et al. 2018, Gordon 2022, Goodkind et al. 2012). Goodkind and others find that the breakdown of intergenerational relationships impacts well-being in Diné Native communities. “The burden of distress and despair wrought by generations of colonial oppression often renders relationships and social cohesion within and between indigenous communities fragile”. This contributes to problems such as substance abuse, health disparities, and mental health issues. Bersamin et al. (2014) attribute health disparities amongst Alaska Native populations in part to a lack of physical activity which they then relate to a “loss of culture,” which in the context of this study may look like fewer hunting and fishing trips, less opportunity to transmit culturally important knowledge and practices, less immersion in nature, and thus disconnection to self, place, and community.

A key component of Alaska Native and rural community culture, subsistence provides a medium for the exchange and perpetuation of community-held customs and practices. It demonstrably provides relief from economic shocks such as grocery shortages or gas price fluctuation, enhancing food security at both the household and community level. Moreover, subsistence provides the opportunity for people to diversify both their diets and their livelihoods. In Scoones' (1998) rural livelihoods framework, he notes livelihood diversification as an essential skill to either cope with momentary setbacks or as a permanent solution in adapting to new realities. In the context of Ketchikan, this may look like budgeting for a certain number of groceries keeping in mind that you know your freezer is already half-full of subsistence food. With the economic uncertainty of supply chains and an unpredictable climatic future, subsistence may only become more important in the sustainability of Ketchikan's livelihoods.

METHODS:

Author Positionality:

My position in society and my philosophies serve to influence the purpose of my work. As a cis-gender, white male, I recognize my privilege gives me access to resources that are not available to everyone. My ability to travel and study has instilled the importance of

understanding local reality to make effective and fair political decisions. Being an anthropologist at heart and a member of the LGBTQ+ community, my experiences interculturally and intercommunally have guided me to build bridges based on mutual understanding and to advocate where others may not be able. This positionality serves to motivate and reinforce this work.

Sampling and Interviews:

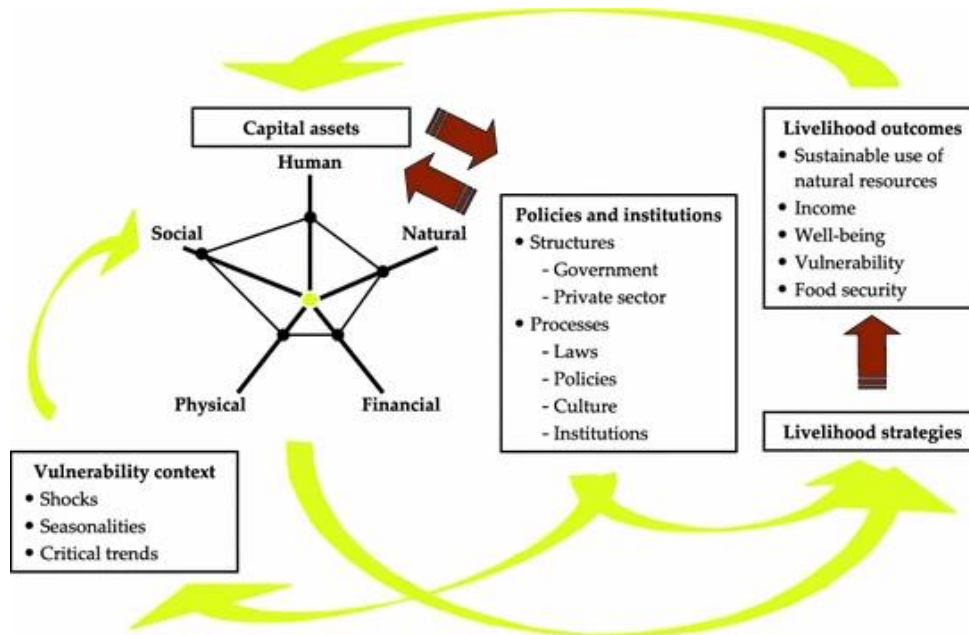
To find respondents, I worked with three officials in the KIC to develop a list of people who would be helpful in my research. I give credit to my first respondent, a Haida elder whom I met at the KIC's canoe awakening. Her responses gave insight into what was relevant to the community. This informed a new questionnaire with the following themes: 1) types of resources used, 2) access to resources, 3) how resources are used, 4) economics of subsistence, 5) time and availability, 6) social/cultural values, 7) perceived threats to subsistence. While these questions formed the basis for interviews, most respondents spoke about how subsistence benefits them and perceived threats to the practice.

I conducted semi-directed interviews with five more knowledgeable respondents, two of whom work in the realm of food security and three others who are harvesters. Interviews were recorded on a locked iPhone and in the form of written notes. Interviews were then transcribed into a written format. Transcripts were annotated for themes and quotes were then added to an Excel sheet. Inductive analysis revealed themes in the data, allowing the data to take form into categories (codes). I analyzed and grouped themes with the guidance of the sustainable livelihoods framework. This helped clarify relations between themes. The following questions are answered in this research.

1. What are the dominant sources of vulnerability in Ketchikan?
2. How do residents of Ketchikan value and utilize subsistence resources?
3. How do subsistence resources contribute to resilient livelihoods?
4. What are common barriers to subsistence?
5. Can rural determination and subsequent increased resource access help overcome these barriers and create a buffer against these sources of vulnerability?

Sustainable Livelihood Framework:

Scoones' 1998 rural livelihoods framework characterizes what "enables or constrains" rural sustainable livelihoods. Components of sustainable livelihoods include the creation of working days, the reduction of poverty, resilience, and resource sustainability. Natarajan et al. (2022) offer a critique of Scoones' framework as paying "insufficient attention to the political" structures and powers that mediate stakeholder access to capital. In part, this research asks how management (political) structures in Southeast Alaska can enable Alaskan subsistence livelihoods in a culturally responsive and environmentally sustainable manner. The framework also helped to understand how access to capital contributes to livelihood outcomes such as resilience and food security and how political structures influence this access.



RESULTS:

One respondent noted efforts in the community to revitalize Alaskan Native culture "even the State of Alaska Department of Health Services recognizes how [important] healing our culture

is, so they're paying elders and culture bearers...to spend time with families, foster care children, and their parents.” A significant part of this connection is practiced through activity on the land. Respondent #2 states “there is a spiritual aspect to doing this. I wanted to give the elder that can't go through the woods anymore the experience of putting on the virtual reality glasses and taking that walk, gathering that plant, peeling it away, and then at the end of that be able to present a glass of tea and have it - I had hoped - mean a little bit more. It's not the same as going there, but it's better than remembering.” Respondents #1, #2, #3, and #4 noted the significance of being on the land and practicing traditional activities, such as subsistence and gathering. Other factors such as individual ability (age and health), time availability (weekends), distance to viable land, and land ownership patterns are all factors that mediate individual access to land.

Respondents 1-4 all also noted how a rural determination would support their regular subsistence activities and access to these resources. Respondent #4 said “We're asking for a rural status within the Ketchikan Gateway Borough...So, we don't have to go further out to some of those places that would take a long time.” Following this, she discussed the risks of accessing harder-to-reach resources – especially by boat, noting rough seas and unpredictable weather. She stated opening up subsistence would allow people to reach closer to home resources, minimizing risk and increasing harvest success. “I mean it's dangerous... some people just have little skiffs.” Respondents #1 and #4 specifically discussed the difficulty of accessing certain resources.

Sources of Vulnerability

“We have had times where the barges weren't running right, the airlift doesn't run right, and we've been out of food stock.”

Inconsistent Supply Lines Increase Food Insecurity: A lack of local agricultural production, geographical isolation, and distance of food shipping appear to contribute to a lack of food stability in Ketchikan. Respondent #2 characterized Ketchikan as a food desert. “The average food source that you have now has traveled 1500 miles before it has come into your grocery store.” This is echoed by respondent #6 who works with Ketchikan Agricultural Production Association (KAPA): “Having fresh fruit and veg that was locally grown... I took it

for granted. Then I came up here and was like, there is nothing.” Both respondents were sensitive to the lack of local production and saw the need to enhance local food production.

Imported Foods Have Less Nutritional Value than Subsistence Foods: Respondent #3, a former president for the KIC, highlights the nutritional importance of traditional foods stating that we know from “western studies too, that it's just so much better to have a variety of foods, especially [with] all the antioxidants.” Respondent #4 agrees and adds “Why should I have to buy food from the store? Why should the standard be you have to go to the grocery store and eat pork meat? Or to eat cow, pork, and chicken?” Respondent #4 noted the questionable nutritional quality of store-bought food, which respondent #6 compliments noting that food – especially produce, is often at the end of its life span “they'll have rotten by the time they get here.” She reasons this is due to the long distances the food must be transported.

You'll see in the summertime, at the airport, they're just shipping out boxes and boxes of seafood. For my Native people, it's a struggle to even get any.”

Tourists Increase Pressures on Limited Food Supply: The 2023 season is predicted to see 1.5 million tourists by its end (KRBD Radio). Tourist ships bring throngs of tourists each day which can take a toll on limited local supplies. My hostel manager - who has worked in Ketchikan for two summers, stated that she often sees aisles at Walmart “wiped out” when the cruise ships come (personal communication, June 2023). Respondent #6 mentions that when cruise ships are low on supplies, they will often stock up at the local Safeway or Walmart, purchasing large amounts of produce for the ships: “when a cruise ship happens to run out of lettuce or whatever, they'll come in and wipe out the produce section and then the community is left with nothing.”

Commercializing Resources May Pose a Threat to Subsistence Livelihoods: Respondent #4 is an avid seaweed harvester and has noticed an increase in people applying for commercial harvest permits for wild resources. She is afraid that with increasing commercial harvest pressures that “there's going to be a time when we're going to have to be permitted,” meaning population pressures will get to the point that seaweed harvest must be managed. Moreover, she wonders how much pressure out-of-state hunting guides and fishing charters put on wildlife populations. This was also mentioned by respondents #1, #2, & #3. The third respondent states

“It's not easy. The state, it's a free-for-all. They're all about commercializing.”

Commercialization brings opportunity for those with the ambition and ingenuity to capitalize but can threaten those who use resources for personal use and may not have the resources to capitalize on the product.

With increasing privatization and commercialization, small-scale operations can face new hardships in their livelihoods in the form of competition with larger commercial operations. This contradiction was demonstrated between respondents #4 who harvests seaweed for personal and family use and respondent #6 who harvests wild kelp for commercial sale. Respondent #4 states “that situation can get out of hand where people are now advertising those products in Las Vegas at one of the biggest food shows in the country where there's 3,000 vendors...that's serious business to me.”

A lot of places you have to go are by boat... That's expensive. Not many Native households, I think, can afford to...”

Physical Capability: Making harvest trips entails many factors of access. First and foremost is one's physical capacity to do so. To address this, the KIC has an Elders Food Distribution network that works to supplement the diets of elder KIC members with traditional foods. However, some who are other-abled are unable to access foods such as salmon and deer meat which require a high degree of fitness to retrieve. Traditional trading and food sharing in the community can supplement access for those who cannot harvest themselves. Respondent #1 demonstrates this point; unable to operate a boat or to hunt herself, she trades harvested beach asparagus, jams, and berries with others for wild proteins. Moreover, respondent #4 harvests for other households in her family and extended family. She notes that proxy permits (permits that allow you to harvest for others) are a great way to extend the benefit of harvested resources, but she is still limited by other factors.

Location and transportation: Access to subsistence resources is partly determined by the location of resources and one's available form of transportation. Ketchikan is not connected to a larger road system to other islands, so boat access becomes a necessity for those wishing to access certain marine resources. Respondent #1 noted that her access to resources is limited by her lack of a boat and boating knowledge. She stated that she relies on others with boat access to

harvest certain foods for her. This was confirmed in interview two; the respondent stated that increased marine traffic from cruise ships can be a hindrance, if not dangerous, to small skiffs which are a common mode of transportation for local harvesters.

State regulations: Respondents #2 and #4 specifically mentioned State regulations as being an obstacle to harvesting efficiently and effectively. Respondent #4 noted that while she uses proxy permits to harvest for extended family, her daily bag limits constrain how much she can harvest in a single trip. So, she may have to make many trips to meet her needs, which is difficult when working a 40-hour-a-week job. She also notes that her salmon catch of sockeye has decreased over the years, which necessitates more trips to meet her needs. She emphasizes that a rural determination and subsistence priority will allow her to extend her hunting season and daily limits to allow her and others to meet their needs more efficiently.

Subsistence as a Tool for Social and Physical Resilience

Subsistence Off-Sets Food Security and Extends Personal Capability: A single trip can fill a freezer full of meat for winter. It can directly contribute to food security at the household level and even between households. Respondent #4 told me that she will usually get proxy permits for two households in addition to her own. The same respondent told a story about her freezer blowing when she was out of town. "That was devastating. That was probably several thousands of dollars worth of food that we lost. It was... it was months of meals. We're depending on that. Now I have to go buy this food." Respondent #1 has experienced health problems and cannot access as many resources as she used to. Subsistence appears to contribute to her ability to connect with her community and to access foods through trading that she otherwise would not be able to. Residents rely on harvests for their family's food security. Moreover, some families rely on others to harvest for them. Not only do subsistence foods provide a nutrient-dense meal, they also offset costs for expensive groceries. So, when one cannot harvest, they must fill the gap with expensive groceries. Respondent #4 stated that the norm has become you supplement your store-bought food with subsistence foods, but she thinks it should be the other way around.

Subsistence is the *Practice* of Social-Cultural Values: While sources of vulnerability in Ketchikan can place pressure on food access and social-cultural values, subsistence provides a

time-proven practice of resilience. It is a practice and value that is often handed down through families. Respondent #4: "It makes me respect people who've went out and harvested. I've taught my kids to go harvesting... they know how to harvest and prepare all these foods. So, it's teaching my children discipline..." Subsistence is inherently a shared activity, whether it be the process or the product. Respondent #5 stated that he learned to fish for halibut from his father when he was a child. Respondent #1 said, "it [harvesting] taught me to watch out for other people, to offer help, and to share the resources, 'cause some people can't get out there." Finally, respondent #2's response stood out amongst the rest. Referring to a capitalist resource economy and limited subsistence, he said "I think we lose our altruism. We lose the idea that we can do good." This response details the role subsistence plays in supporting social networks and in supporting one another as a community.

Subsistence Contributes Towards Stewardship and Sense of Place: Respondent #1 emphasized the spiritual connection between Alaska Natives, the land, and traditional foods. "It's part of who we are as a people." There is an adamant belief that this connection, this co-evolution with the land through time, contributes to a "better sense of stewardship...[a] transgenerational knowledge of how this land should be worked," (respondent #1). Subsistence contributes to a sense of identity for both Alaska Natives and non-Native Alaskans. The ability to self-sustain and rely on oneself and one's community is a dominant value in this isolated community. The desire for self-governance is an expression of the KIC's sovereignty and the act and subsistence and self-management is the practice thereof. "We manage our own healthcare and education. We can do our land too, but we don't have land because we're landless," (respondent #3). Respondent #2 reasoned that subsistence would localize hunting efforts. Instead of hunters from Ketchikan ferrying to Prince of Wales Island – a nearby island where communities have subsistence access, "our people that were that are going out and poaching, in essence, will stop poaching there and stay home."

DISCUSSION:

"Our best programs, the ones that really bring together hearts, that have had the most healing in our community, are the programs that get our people out on the land and bring us together around our foods."

Alaskan Native culture and non-Native Alaskan culture are intimately interwoven with natural resources, traditional foods, and associated activities. The act of waking early, gathering with family and friends, braving the elements, teaching, learning, and *doing* are inseparable from many Alaskan livelihoods “There's no way to stop people who have gathered off the lands and waters forever...” to limit one’s harvest affects more than the individual harvester; it can have a ripple effect through social and cultural networks that are already strained by socioeconomic hardships and chronic health disparities “... It [nonrural status] just pushes a strain on our food harvesting and our lifestyle of what we believe is nutritious for our family.” As one respondent stated, “we'll get to a point where we're just gonna do it anyway and pay for the lawyer fees.” The nonrural status has an evident impact on multiple facets of life in Ketchikan. Subsistence has the potential to move people into a state of socioeconomic security and cultural perpetuity.

Subsistence, especially in an Alaska Native context, is a medium for the transfer of social and/or cultural values to younger generations. “It's part of who we are as a people.” The social-cultural importance of subsistence is augmented by its capacity to support others with limited ability to harvest for themselves, or for individuals who may be going without a meal. The importance of food sharing was impressed in each interview. It benefits each uniquely. For some, being able to trade beach asparagus for deer meat is the only way they can access the invaluable protein. Thus, cutting a hunter’s bag limit or annual limit may impair that deer hunter’s ability to share with the person who can only access beach asparagus. Further, limiting subsistence may limit one’s capacity to network in traditional systems of barter and trade, systems that are already endangered due to capitalist development, changes in social values, and a history of colonial development.

The KIC is often called a landless community, one of five communities in Southeast Alaska that were left out of land transfers under ANCSA. While interviews did not address land specifically, personal conversations with Tribal members and others revealed this as a point of contention. In November of 2021, S. 3269 the “Unrecognized Southeast Alaska Native Communities Recognition and Compensation Act” was introduced to the US Senate to address this inequity. The Act would allow the communities of Ketchikan, Haines, Wrangell, Petersburg, and Tenakee to establish corporations and entitle them to land allotments. It would also allow said communities to establish a settlement trust to promote the welfare of trust beneficiaries and

“preserve the Alaska Native heritage and culture of their communities,” (Unrecognized Southeast Alaska Native Communities Recognition and Compensation Act. 2022, June 7). This piece of legislation represents a move to recognize the shortcomings of ANCSA – specifically communities in the southeast. As Goodkind and Bersamin discuss, the separation of people from their generational ties, land, and cultural practices can result in impacted well-being. Kirmayer et al. (2011) find that among First Nations peoples of Canada, revitalization of language and tradition can “repair the ruptures of cultural continuity” caused by a multitude of factors, principally from settler colonialism. In the context of Ketchikan, these ruptures are felt and recognized today amongst Alaska Natives who contributed to this research. Using an Indigenous framework of resilience offers perspective when examining livelihoods in traditional Indigenous homelands and with Alaska Native communities. Native values appear to be shared amongst the non-Native community as well, thus utilizing a sustainable livelihoods framework and an Indigenous model of resilience, these frameworks offer a holistic picture of livelihood resilience in sustainability in Ketchikan.

“[Rural status] will bring more local food access and prioritize subsistence over commercial use. Which means more of our people can have access to the foods that they traditionally eat on federal land...There is a lot of federal land around here.

Put simply, a rural determination would allow residents of Ketchikan to access more wild foods and supplement their livelihoods culturally, nutritionally, and economically. Subsistence is a cross-cutting activity that is more than providing food for oneself, although that is an important facet. It is one way people express their identity and connection to the land. It is the proverbial glue that binds people to each other, a necessary aspect of living in an isolated community. The continuation of ancestral knowledge and practices is a demonstrably necessary practice in Indigenous resilience and just as much in the economic security of non-Native Alaskans. This connection to each other and the land creates a symbiotic relationship that contributes to this community’s capacity to cope with shocks in ecosystem and market shocks and adapt to inevitable changes in the following decades. Several interview respondents specified that the nutritional value of wild and traditional foods far exceeds those of store-bought foods. This increased nutrition contributes to off-setting chronic health issues often seen in rural Alaskan

communities, such as diabetes and heart issues. In tandem with the practice of traditional knowledge and customs, healthy and organic wild foods undoubtedly contribute to public and individual health. Moreover, it became evident that independence and the ability to rely on oneself and community are highly valued and are fostered directly through subsistence.

The opening of federal land for subsistence would be a further step towards ameliorating historical wrongs towards Alaska Native peoples; a movement to develop a sustainable future that integrates a systemic, social-ecological perspective and emphasizes human dependence and relationship with the land. Healing the separation between people, their food, and the land is a powerful move toward cultivating a sense of responsibility for conservation and sustainability. Cultivating a sense of stewardship and sustainability can only be done when one is privileged to the benefits of such.

Study Limitations:

This work is highly qualitative and focuses on individual experiences in Ketchikan. Therefore, the experiences highlighted in this paper are not necessarily representative of all residents of Ketchikan or Southeast Alaska. While a sustainable livelihoods framework was used as a conceptual framework – results were analyzed inductively, allowing the data to take shape and form themes in a way that is true to respondent responses. Lastly, while the responses and themes within this study provide a profile of livelihood realities in Ketchikan, future studies should be done to quantify individual experiences with these themes.

CONCLUSION:

The highly intimate nature of subsistence was a consistent theme throughout my time in Ketchikan. Natives and non-Natives alike were attuned to the fact that subsistence and the norms and values associated with it are highly personal and interpersonal. These cultural and social facets are often associated with or derived from Native culture, demonstrated in the values of sharing, helping, and environmental ethos of all respondents. These practices and norms appear to contribute to community cohesion and well-being. The practice of subsistence and the sharing of wild foods by Alaska Natives is a manifestation of resistance to historical colonial oppression

and institutions that can marginalize and homogenize what is an incredibly colorful, attuned, and diverse people and culture. The persistence of Native ways of knowing and being represents a resilient community that is adamant within itself and determined to pass on knowledge and values to future generations and act as stewards and beneficiaries of their ancestral lands.

The personal nature of this work highlights how integral it is for effective management to consider local realities and priorities when making nonrural determinations. The rural/nonrural style of ANCSA and ANILCA shifts policy analysis towards rural communities and tends to ignore how subsistence is still used in areas determined as nonrural. This gap appears to contribute to the disregard of socioeconomic challenges that are present in nonrural areas. Therefore, the consideration of whether an area "deserves" or "needs" subsistence should not be concentrated purely on the presence of grocery stores and other infrastructure, but also on the accessibility of these resources – both financially and culturally. It should consider more heavily how mixed livelihoods face pressures from development, inflation, and isolation and how subsistence may offset these pressures. This style of policymaking would require more immersive consideration of an area's reality, one that can only happen by being within a community of concern. In addition to public comment and calls for proposals, it may require allotting funds for anthropological work within communities to grasp a fuller understanding of how subsistence is used and valued and how it contributes towards off-setting cultural and economic marginalization.

Increasing subsistence access will undoubtedly have unforeseen effects, therefore future studies – such as those being undertaken by the KIC, should endeavor to develop projections of how hunting and fishing would change under a rural classification. This projection should also consider how food security may change under such conditions.

As a preliminary to household surveys, research should also compare Alaska State hunting-fishing regulations to federal subsistence regulations to provide a framework for how harvest activity might change under a rural determination, allowing conservation agencies to proactively address potential issues before they arise. Lastly, while this research was focused on the socio-economic aspects of subsistence, future research should consider how subsistence livelihoods will change as climatic events inevitably impact ecosystem dynamics.

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Appendix 1: Interview Script

Name

Age

Occupation

Place of Birth

Place of Residence:

- # of years

1. Resource types: *“Can you tell me about what your typical harvests and trips looks like?”*
 - a. What kinds of resources do you harvest?
 - b. Where do you go?
 - c. How long have you been harvesting them?
 - d. How do you harvest them?
 - e. What do you do with them?
2. Resource Access: *“How do you access these different resources? How do you find them or get to them?”*
 - a. What kind of transport do you use?
 - b. Do different resources require different transportation?
 - c. Do you have difficulties finding or accessing the resources you need/want?
 - d. What kinds of trouble? Has this changed over time?
3. Resource Use – share, trade, consume, conserve, etc. *“What do you do with a typical harvest?”*
 - a. Do you share or trade anything? (Who, what, how much)
 - b. Does anyone share with you? (Who, what, when, why?)
 - c. In what situation would you feel like sharing your harvest? Who might you share it with?
4. Economics: *“Can you tell me about the kind of investment that goes into hunting or fishing and how that relates to what you get out of it?”*

- a. How much do you get back vs. what you put into it?
 - b. What does harvest opportunity provide for you? What is the reward?
 - c. Are finances an obstacle? What are the most burdensome expenses?
 - d. Has this affected how often you go out or how much you're able to harvest?
 - e. How much would you say you are willing to invest in any given trip?
5. Time and Availability: *“How does time or timing come into play when you harvest or need to harvest?”*
- a. When are you typically able to go out?
 - b. How often do you go out?
 - c. How long may a trip last?
 - d. How does this fit into your other day to day activities?
 - e. How long might it take to get what you need?
6. Values and Focus: *“Can you tell me about your history with hunting or fishing?” “Can you tell me a story that demonstrates what harvesting means to you?”*
- a. When did you first start to learn?
 - b. Who taught you?
 - c. How does hunting and fishing support you? How does it fit into your life? Has this changed over time?
 - d. How do you think community values of hunting and fishing have changed over time?
 - e. What might have influenced this?
7. Vulnerability: *“If hunting and fishing were to dramatically limited, how would this affect you? How would it affect the community?”*
- a. What are your thoughts on sport fishing and hunting?
 - b. How do you think tourism (fishing charters, cruise lines, economic development) contribute or impact the community as a whole?
 - c. Do you foresee any risks or threats to subsistence hunting and fishing lifestyles?