

THE KENAI PENINSULA, ALASKA RESILIENT COMMUNITY FOOD SYSTEM RESEARCH BRIEF

Impacts from COVID and severe climactic events



PREPARED BY

Courtney Long

Food Systems Program Manager
Iowa State University Extension and Outreach
Farm, Food and Enterprise Development

Kaley Hohenshell

Education Extension Specialist
Iowa State University Extension and Outreach
Farm, Food and Enterprise Development

IOWA STATE UNIVERSITY
Extension and Outreach

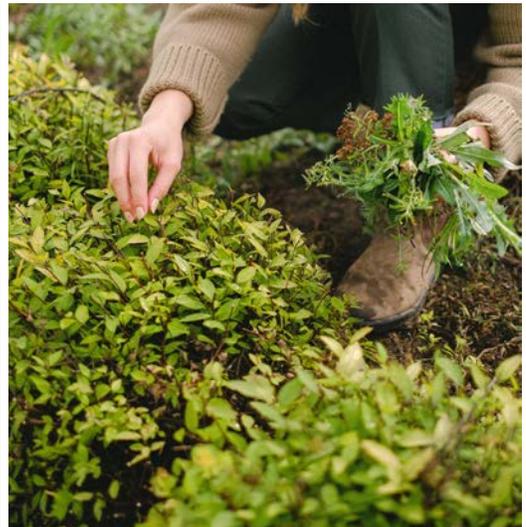


INTRODUCTION

This research brief is formatted to give an in-depth analysis of findings related to impacts on the Kenai Peninsula, Alaska, specifically on the southeast portion of the peninsula, including Soldotna, Kenai, and Homer. Iowa State Extension and University of Alaska Fairbanks Cooperative Extension (UAF Cooperative Extension) have been working in partnership since 2018 starting with a Local Food Leader and Community Food Systems certification.

The research was conducted between 2020-2022. Participants included community advocates, farmers and food businesses, non-profits, colleges, and state organizations. Alaska Food Policy Council and Homer Soil and Water, supported the project through outreach for participation in surveys, interviews, and focus groups, resulting in 35 survey responses, nine interviews, and two focus groups (8 participants total), each with IRB¹ approval and informed consent.

Overall, this research has shown the need for community collaboration and networking, scaling up of farming, and infrastructure investment for the Kenai Peninsula food system. Discussion around care for the environment and habitat preservation was present in many discussions. While there is a desire to increase production, it is also important to continue to connect to subsistence and traditional ways of growing, harvesting, and preparing foods.



¹ Institutional Review Boards and Protection of Human Subjects - study exempt

SUGGESTED PRIORITIES

FROM ACTION PLANNING

SUGGESTED PRIORITIES FROM ACTION PLANNING

The priority that will be acted on through funding from the Agricultural Marketing Resource Center will be for supporting both a local and statewide network that connects to priority 4 of establishing food system network discussions statewide, regionally, and locally. The project will include understanding best practices of local food councils or coalitions, and statewide networks. Following this understanding, facilitated sessions will occur in Homer to help initiate a new local food and farm council in conjunction with the new Ag Program at Kenai Peninsula College. The \$10,000 will be allocated to the Alaska Food Policy Council, which will then coordinate research and facilitation related to both local and statewide food system networks.

No. 01 _____

Enhance opportunities for gardens and farms to scale up or cooperate for wholesale distribution.

No. 02 _____

Improve and invest in resilient infrastructure for farming, processing, storage, and distribution.

No. 03 _____

Provide technical support and education around food as medicine and traditional food ways.

No. 04 _____

Establish food system network discussions statewide, regionally, and locally.

No. 05 _____

Encourage food distributors and buyers to seek out local food purchasing.

No. 06 _____

Identify best practices for disaster preparedness related to farmers, distributors, and networks for storm mitigation, including policies for pre and post storm.

No. 07 _____

Develop a disaster food management plan.

COMMUNITY OVERVIEW

This section reviews values and ways that community members participate and connect in community. The Kenai Peninsula Borough is located southeast of Anchorage. While the entire peninsula was invited to participate in the research, most was conducted in the areas of Kenia, Homer, and Soldotna. Individuals who participated in the survey were asked to select their top three societal values from a pre-created list. Environment, Culture, and Education rank as the highest values, with 56% agreeing that Environment is a top value. In addition, through focus group and interviews, natural environment, community networks and diversity came up as strong assets across the community.

When asked about the importance of supporting local food and farm businesses, over 97% believed it either extremely or very important.

The intent of this research is to understand the interest and ability to have a resilient food system. Primarily, understanding the community's interest in local and regional foods, and the willingness to participate and purchase from farm and food businesses that operate within a local or regional geography. When asked about the importance of supporting local food and farm businesses, over 97% believed it was either extremely or very important. Within the Kenai Peninsula, individuals are seeking out local whenever they can, however, there is not always available products at markets, especially in off-season. A unique aspect of the Kenai Peninsula is the reliance of subsistence gardening, fishing and hunting which may increase the locally purveyed food in individuals' homes, including products that are donated through food banks and pantries.

To further understand purchasing habits, survey participants were asked about the level of importance for attributes for purchasing food. On average, grown local (48.57%) and freshness (48.57%) were ranked highest while organic (20%) and food safety practices (14.71%) were ranked lowest, overall.

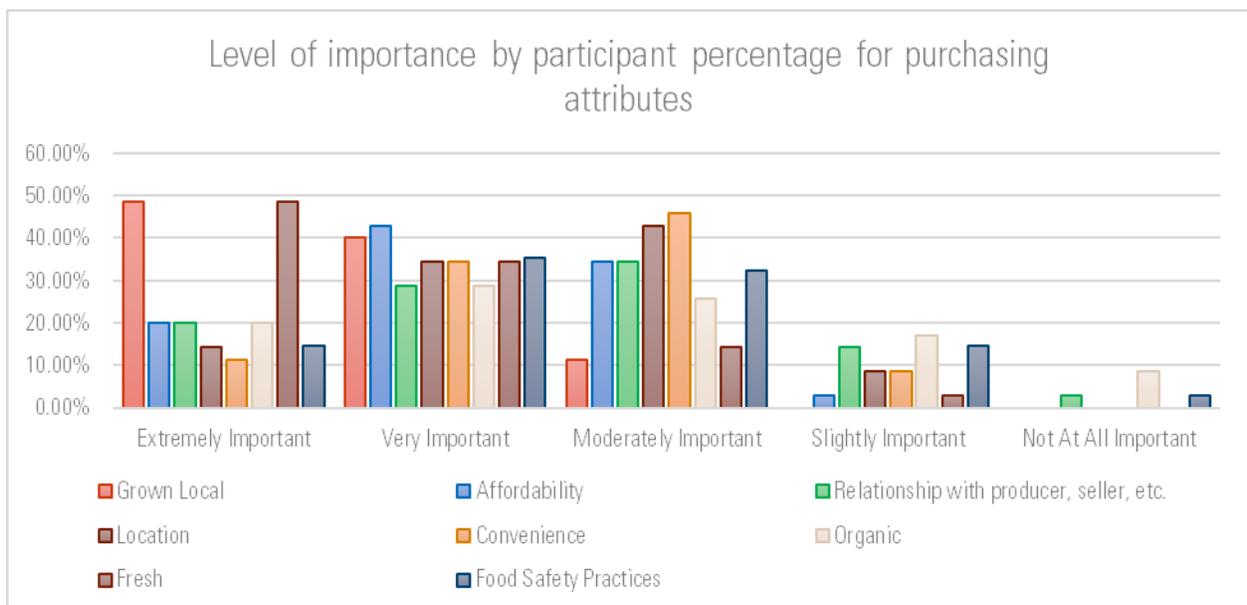


Figure 1: Importance of food attributes by percentage (N=34 for food safety).

NATURAL DISASTERS IMPACT

Natural disasters impact all of community life, ranging from mild challenges for transportation and ease of access to devastating loss of infrastructure and life. The Kenia Peninsula has been involved in seven designated disaster areas since 2011 Bastrop County has been involved in ten designated disaster areas since 2011². Interview, focus group and survey participants were asked to reflect on their experiences of natural disasters. Of the 35 survey participants, 25 (71%) shared that they experienced a natural disaster, which included the Swan Lake Fire or other climactic events such as hail, flood, wind, tornado, and drought. Of those who experienced a natural disaster, 24 (96%) experienced more than one event.

Increase in mental stress, damage to home or property, and increase in physical stress were the most common impacts across all disasters.

While the Swan Lake fire was asked about specifically in the survey, interview participants also shared that "fire issues are consistent and they aren't going anywhere." Many individuals shared that while they did not experience the fire firsthand, there was an immense amount of community outreach and support, and concern for neighbors through this event. When asked to share their perspectives on recovery on a scale of zero to ten (with 0 being no recovery, and 10 being full recovery), on average, participants have mostly recovered from each event, ranging from 7.75 (drought) to 10 (hail and flood).

Usefulness of organizations when responding to a Natural Disaster

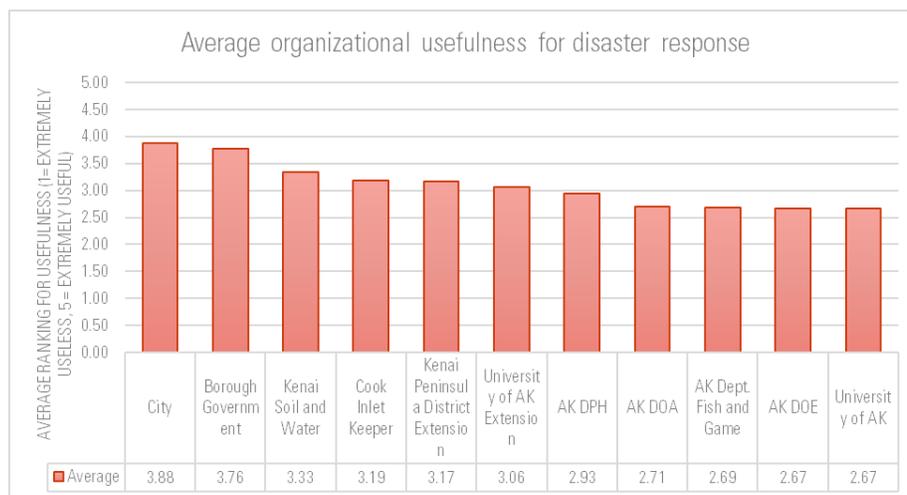


Figure 2: Average usefulness of organizations for responding to Natural Disasters. N = variable; see Snapshot, Table 7 for total participant numbers.

Individuals were asked about usefulness for organizations in the Kenia Peninsula, based on a pre-made list from interviews. City Government, Borough Government, and Kenai Soil and Water were seen to be the most useful organizations, while University of Alaska, Alaska Department of Education, and Alaska Department of Fish and Game were seen to be the least useful.

² FEMA. (2022). FEMA. Retrieved from Declared Disasters: https://www.fema.gov/disaster/declarations?field_dv2_state_territory_tribal_value=AK&field_year_value%5B%5D=2011&field_dv2_declaration_type_value=All&field_dv2_incident_type_target_id_selective=All

COVID-19 IMPACT

Interview, focus group, and survey participants were asked to reflect on their experiences of COVID-19. All participants in the survey shared that they experienced some type of impact from COVID-19. Of those who experienced COVID-19, 25 (71%), also experienced at least one natural disaster that happened within the same time frame. Experiencing both COVID-19 and disasters influence mental and physical health, including general fatigue from exposure and worry, and stress related to financial and employment constraints that have occurred due to supply-chain and corporate closures.

Participants mentioned mostly being impacted by increased mental stress and inability to see friends, with each showing over 85% experiencing these indicators.

A smaller amount of survey participants, below 35% experienced physical stress, financial pressures of diminished personal or family health. When addressing these limited impacts with community members, many spoke to the isolated cases of COVID-19 in the region, and the amount of community support for residents. Individuals were asked to share their perceived level of recovery from COVID-19, based on the moment in time they were participating in the research study. Most individuals felt that they are moderately recovered from COVID-19, with a 6.2 on average out of 10.

Usefulness of organizations when responding to a Natural Disaster

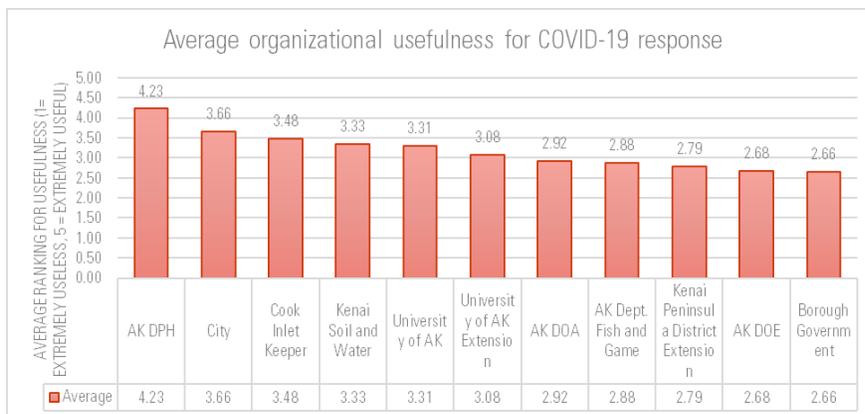


Figure 3: Average usefulness of organizations for responding to COVID-19. N = variable; see Snapshot, Table 12 for participation numbers.

"Emergency services worked hand in hand together; we started with [response to the] earthquake, then fire, and by the time we got to COVID we had been working so closely together... it was building us up to the 'big one' and we had so many partners."

Individuals were asked about usefulness for organizations in the Kenai Peninsula, based on a pre-made list from interviews. The Alaska Department of Public Health (4.33) and City (3.66) were the highest ranked organizations for usefulness followed by Cook InletKeeper. One person shared, "[the] community is flooded with support and now in donor fatigue because everyone is dealing with something now," another shared that "the city and state [offered] housing relief, and a lot of organizations got help through state, county, or federal [funding] that kept our economy going alright," and "City of Soldotna and Kenai stepped up and supported through funds for food distribution, not just farm to family food box, but also grocery sacks full of shelf-stable options." While some shared sentiment for being supported, others mentioned that they "didn't have local support" or "it felt pretty isolated because didn't have support from local government."

PRIORITY AREAS

01. Enhance opportunities for gardens and farms to scale up or coordinate for wholesale distribution.

- 1.1 - Address feasibility for scaling-up of farms and food businesses.
 - 1.1.1 - Increase access to efficient equipment and tools; wash pack station, on-farm processes and access to inputs more available.
 - 1.1.2 - Increase education around animal and animal nutrition needs
- 1.2 - Connect to schools and teach what growing opportunities exist.
 - 1.2.1 - FFA and 4H – increase capacity and show farming as an option in Alaska.
 - 1.2.2 - Connect generations and passing of knowledge.
 - 1.2.3 - Connect to Extension and the food preservation options available, options for different seasons and products for preservation.
- 1.3 - Increase cooperation among farmers
 - 1.3.1- Peer-to-peer and mentor farmer support networks to share knowledge.
 - 1.3.2 - May also support to accessing farm labor.
- 1.4 - Develop policies for land trusts or use of public land for production and land access.

02. Improve and invest in resilient infrastructure for farming, processing, storage, and distribution.

- 2.1 - Identify options for fruit and vegetable storage and processing capacity (bricks and mortar or mobile)
 - 2.1.1 - Identify existing shared-kitchen spaces and policies for at home processing
 - 2.1.2 - Identify cold storage availability or community-based cooperative models for storage
 - 2.1.2.1 - Shared services for things like freeze-drying equipment that can be paid for as a service (similar to freeze drying services for fish)
 - 2.1.2.2 - Communal kitchen specifically around home-based food preservation or start-up businesses
 - 2.1.2.3 - Identify best practices for mobile processing and storage units
 - 2.1.3 - Feasibility/economic impact study for a cooperative business model for storage and processing; what has the capacity of what can be grown, processed and stored, marketed and sold
- 2.2 - Develop meat processing business (bricks and mortar or mobile) both livestock and poultry
 - 2.2.1 - Understand policies for on-farm processing and if there are options for selling wholesale
 - 2.2.2 - Conduct market assessment for poultry processing facility (processing and storage)
- 2.3 - Understand role of Government and State agencies to provide support for this type of investment, including policy, food safety regulations, etc.
 - 2.3.1 - Have courses and “how-to” checklist to become an approved entity/ license/etc.
- 2.4 - Identify areas where local products can be used for feed, seed and fertilizer or inputs
 - 2.4.1 - Assess kelp as a fertilizer and local input that could be developed into business
 - 2.4.2 - Community root sellers and spaces for communal storage
- 2.4.3 - Increase collaboration between the end user and the farmer

PRIORITY AREAS

03. Provide technical support and education around food as medicine and traditional food ways.

- 3.1 - Assess what already is available.
 - 3.1.1 - Develop trust and learn from Alaska Natives.
 - 3.1.2 - Connect to tribal food ways education- growing, harvesting, preparing
 - 3.1.2.1 - How are “white guy” ag practices utilizing things like hoop houses for traditional foods – soil, culture, way of life.
 - 3.1.2.2 - Shifting from “how to make money,” to “how do I share.”
- 3.2 - Develop gardens and agricultural programs in colleges and K-12 schools.
 - 3.2.1 - Connect with Kenai Peninsula College- Kachemak Bay Campus- Ag Program.
 - 3.2.2 - Tie programming to habitat and natural resources.
 - 3.2.3 - Teach hunting, fishing, foraging, and gathering practices as well as butchering and processing.
- 3.3 - Work with chefs and farmers to show traditional practices for production, preserving, and cooking.
- 3.4 - Increase small market gardens and provide technical support from land access, loans, techniques that work in certain regions (connects to #1); care for soil and resources; thinking through when folks have enough individual/family production to sell into different markets.

04. Establish food system network discussions statewide, regionally, and locally.

- 4.1 - Establish peer-to-peer networks, mentorship, and technical support options for farmers and food system and value-chain coordinators.
- 4.2 - Host a state convention with collaborations between all state associations – broaden the Farm Bureau state conference.
- 4.3 - Identify funding for coordination of the networks and participant stipends.
- 4.4 - Understand various “levels” of working groups, affiliations, and statewide networks.

05. Encourage food distributors and buyers to seek out local food purchasing.*

- 5.1 - Conduct a feasibility study and supply/demand analysis for wholesale distribution; may include needs for feasibility research on potential partner distribution networks and nodes for backhauling of products
- 5.2 - Provide incentives through state, borough, or local legislation for local food purchases
- 5.3 - Develop awareness campaign for local food purchases and what currently exists for local food markets
 - 5.3.1 - May connect to existing grant with Homer Soil and Water for marketing
 - 5.3.2 - Student to do video and other marketing
- 5.4 - Increase capacity and visibility of the local food hub
 - 5.4.1 - Increase collaboration between distributors for local food aggregation and sales
 - 5.4.1.1 - While the food hub is currently direct to consumer only, it could grow to wholesale and include cold storage and needed infrastructure elements, but would need interest from farmers

**This priority area may connect to the need expressed in priority 1.*

PRIORITY AREAS

06. Identify best practices for disaster preparedness related to farmers, distributors, and networks for storm mitigation, including policies for pre and post storm.

- 6.1 - Identify best practices for disaster mitigation, including pruning, harvesting, and storage during climactic events such as fire, flood, hail, and drought.
- 6.2 - Create a plan for aggregation and safe distribution of food post disaster, specifically around food preservation, food storage, and food distribution.

07. Develop a disaster food management plan.

- 7.1 - Research and identify amount of food currently available within the Kenai Peninsula.
- 7.2 - Identify total number of farms and quantity of products (on average).
- 7.3 - Identify amount of food in storage within grocery, food bank, pantries, and retailers
- 7.4 - Incorporate food storage and access borough policy for disaster management.
 - 7.4.1 - Approach churches, non-profits, etc. for ability to store food in their existing dry storage space.



ACKNOWLEDGEMENTS

A special thank you to all the farmers, businesses, organizations, staff, and individuals that met and shared their stories with us throughout the last two years. Thank you for your work and dedication to resilient food systems. We are humbled and grateful for your time.



CONTACT

Courtney Long

Food Systems Program Manager
Iowa State University Extension and Outreach
Farm, Food and Enterprise Development
court7@iastate.edu
ph. 515.460.3227
extension.iastate.edu/ffed/food-systems/

To read the full Kenai Peninsula
Food System Resilience
Snapshot, visit



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