



North Slope Regional Food Security Workshop: *How to Assess Food Security from an Inuit Perspective: Building a Conceptual Framework on How to Assess Food Security in the Alaskan Arctic* November 2013.



North Slope Regional Food Security Workshop Participants and Observers. Photo: Carolina Behe. 2013

On November 13th and 14th, 2013 Traditional Knowledge (TK) Experts came together to evaluate and validate preliminary findings of the Inuit Circumpolar Council – Alaska’s (ICC-AK) food security project, *How to Assess Food Security from an Inuit Perspective: Building a Conceptual Framework on How to Assess Food Security in the Alaskan Arctic*. The North Slope food security workshop is an important part of the overall project methodology, allowing for greater engagement of Arctic villages and a preliminary validation process. TK experts were identified by their respective Tribal Councils and peers, to validate and evaluate the information that was previously documented through expert interviews and offer further insight on drivers of food security and insecurity. The following report provides an overview of the workshop proceedings.

This report reviews the information discussed during the North Slope Food Security workshop, as well as information gleaned from our other project activities to date. This report will be one component of several that will contribute to our final assessment tool and definition of Inuit food security and drivers of food in/security. This report should be cited as: Behe, Carolina. Inuit Circumpolar Council - Alaska. North Slope Regional Food Security Workshop: *How to Assess Food Security from an Inuit Perspective: Building a Conceptual Framework on How to Assess Food Security in the Alaskan Arctic*. 2013.



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**Thank you!**

Note takers and Facilitators: Robert Suvlu, Nicole Kanayurak, Heather Dingman and Caroline Cannon provided invaluable contributions in logistical planning of the workshop. They additionally went above and beyond in taking notes throughout the workshop and in leading break-out group discussions. The workshop was successful in large part to their contributions.

The North Slope Borough (NSB) Health Department was very generous in assisting with problem solving throughout planning and holding of the workshop. The Health Department provided lodging for all of the workshop participants. The NSB Health Department also provided food for all participants on one day of the meeting.

The North Slope Borough Wildlife Department has supported this project from the beginning through offering feedback and suggested places to find information, suggestions of who to speak with, etc. The Wildlife department also provided food for one day of the workshop...providing Native food for lunch one day.

The Inupiat Heritage Museum provided a location to hold the workshop, audio equipment to record the meeting, and wonderful friendly staff always ready to offer a quick smile and answer questions.

Arctic Slope Regional Corporation provided catering for a welcoming dinner. The dinner provided the workshop participants an opportunity to meet each other, and for planning to attend the workshop as observers to meet the participants and hear more about the food security project.

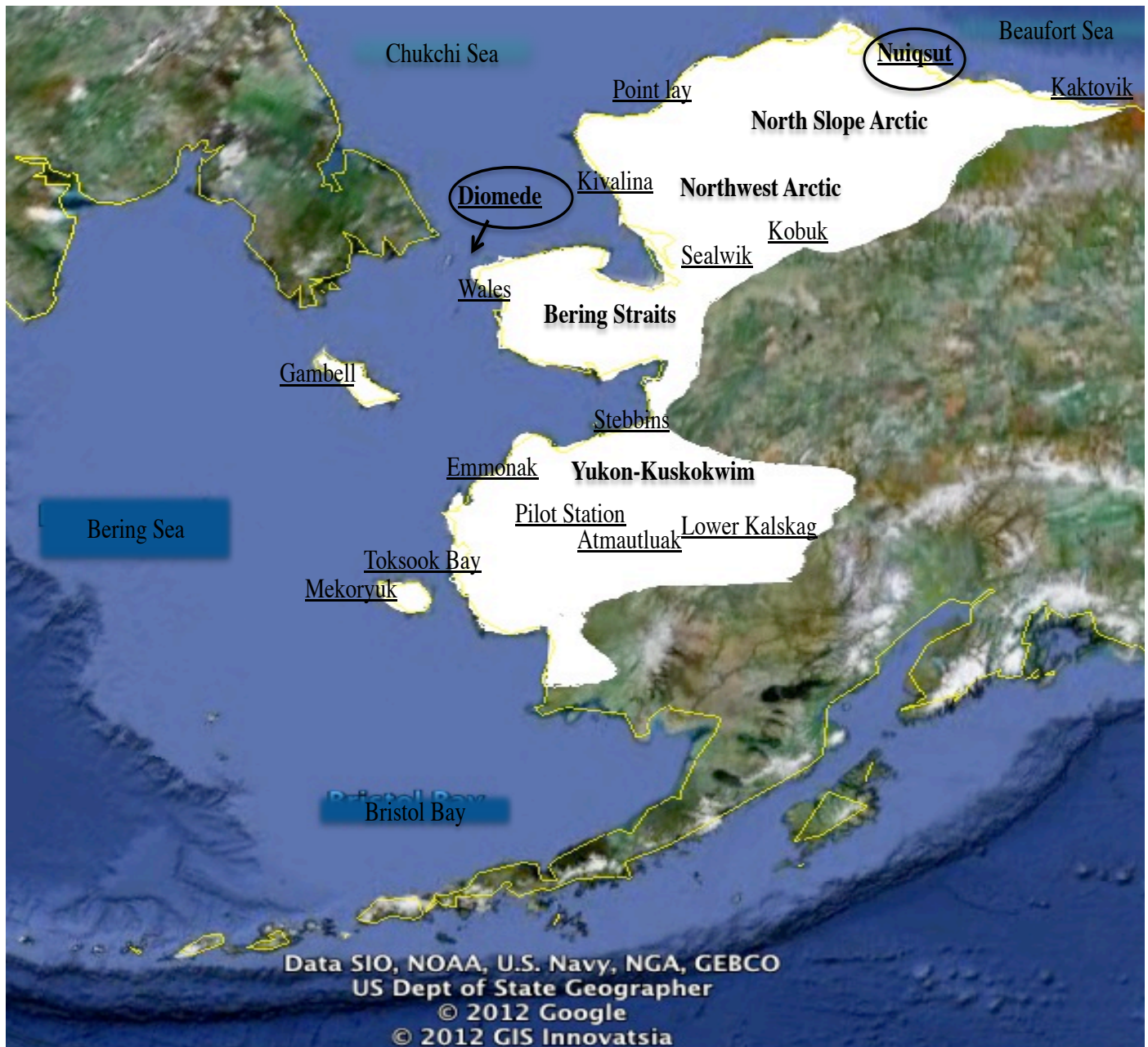
The North Slope Borough Mayor's Office provided continued support in logistical planning and providing advice.

The Inupiat Community of the Arctic Slope provided a representative to act on the planning committee and identified TK experts to participate in the workshop.

All of the village Tribal Councils in the region worked to identify respective experts within their communities to attend the meeting.

And of course, thank you to all of the participants (TK experts). This project belongs to you and would not be possible without your expertise to evaluate and validate the information that has been gathered and provide missing information. Many of the meeting participants will further engage in the project as contributing authors of the assessment tool and report. This commitment to the project allows for a validation process of the information that has been gathered and will contributing to making the final product creditable.

This report reviews the information discussed during the North Slope Food Security workshop, as well as information gleaned from our other project activities to date. This report will be one component of several that will contribute to our final assessment tool and definition of Inuit food security and drivers of food in/security.



Villages visited as part of the ICC-AK food security project. We will visit Nuiqsut and Diomede in early 2014.



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The workshop was attended by 13 TK experts (referred to as participants within the report). A few people joined the workshop as observers. A full list of participants and observers may be found under Appendix 2. Workshop Participants (TK Experts):

Charlie Brower – Native Village of Barrow
Terry Tagarook – Wainwright
Edward Nukapiagak – Nuiqsut
Anna Nageak- Anaktuvuk Pass
Marie Tracey – Point Lay
Wesley Aiken – Barrow
William Leavitt, Sr. - Barrow
Robert Suvlu – ICAS

George Olemaun – ICAS
Taquik Hepa – NSB
Qaiyaan Harcharek – Food Security Advisory
Committee member / NSB
Harry Brower – NSB
Flora Brower – Barrow

Since July 2012 ICC-AK has visited fourteen Alaska Inuit villages to collect information and perspectives from Traditional Knowledge holders on the topic of food security, through semi-directive interviews and community meetings. Within the North Slope Arctic Region we visited Kaktovik and Point Lay (we will visit Nuiqsut the second week of March, 2014). The information gathered is being aggregated and analyzed to obtain a greater understanding of an Inuit food security definition and to identify overarching drivers of food security and insecurity in order to develop an Inuit definition of food security. Preliminary findings from these expert interviews were presented at the workshop. As stated above, the Barrow food security workshop was a validation process of the information that has been gathered through Traditional Knowledge holder expert interviews.



Photo by Nicole Kanayurak. 2013

A similar regional workshop will take place in Kotzebue, Nome, and Bethel. The project is scheduled to be finished November 2014. Though we have a lot more work to do, what we know so far is that an accumulation of stressors is causing food insecurity; and that there is a need to look at the Arctic through a food security lens in order to gain a holistic understanding of the Arctic systems and to create adaptive management schemes. This understanding has brought to light the need to identify indicators (drivers), which may be used to assess both social and physical systems.

This report reviews the information discussed during the North Slope regional food security workshop, as well as information gleaned from our other project activities to date. This report will be one component of



several that will contribute to our final assessment tool, to definition of Inuit food security and to the identification of drivers of food in/security. This report should be cited as: Behe, Carolina. Inuit Circumpolar Council - Alaska. North Slope Regional Food Security Workshop: *How to Assess Food Security from an Inuit Perspective: Building a Conceptual Framework on How to Assess Food Security in the Alaskan Arctic*. 2013.

Workshop Objectives:

Over the two day workshop participants were asked to review the information that has been gathered, to contribute additional information where needed, to assist in the analysis of this information through discussion, and to address three objectives of the workshop:



Wesley Aiken. Photo by Minnie Naylor. 2013.

- 1) Provide a consensus on concepts/terms to be included in a food security definition
- 2) Validate the drivers that have been identified and provide additional drivers that have yet to be included of food security and insecurity
- 3) Discuss Traditional Knowledge methodologies that may be used to monitor and assess identified drivers.

Defining Inuit Food Security:

Preliminary Understanding of Food Security: food security is synonymous with environmental health. An environment is considered healthy when all parts fit together. One elder explained that the Arctic environment is like a puzzle, with all pieces having a place and needed to make up the entire puzzle; this includes native languages, retention of traditional knowledge, animal

health, etc. The workshop participants agreed that the following concepts would need to be included in an Inuit definition of food security. Many of these concepts were also identified through expert interviews within the four Alaska regions.

- | | |
|---|---|
| 1) Availability | 8) Traditional knowledge |
| 2) Accessibility | 9) Management, social networks (family villages, such as whaling crews) and team work |
| 3) Inuit ecosystem | 10) Protect and Preserve (to act as stewards) |
| 4) Livelihood | 11) Protection (for the environment /culture to have legal protections) |
| 5) Preference of food | |
| 6) Self identity (shared identity) | |
| 7) Responsibility and accountability (to educate youth) | |

Additionally, the concept of 'natural rights' was described. A 'natural right' includes the right of peoples to be part of the ecosystem, to access food, to protect the land and water. This concept will be expanded upon and included in a section of the assessment tool report.



Phrases generated from expert interviews and the Barrow workshop which aid in understanding the complex nature of Inuit food security:

1. Pieces of the puzzle
2. Part of the thread (Inuit life is part of a thread, with all pieces connecting to each other)
3. Cannot be forced into someone else's box; need a place outside the box also
4. Need balance
5. Natural rights
6. Way of life is being shrunk (a feeling of being forced to eliminate aspects of the Inuit culture until nothing is left).



Traditional Food being prepared for the workshop lunch. Photo by Nicole Kanayurak. 2013.

Drivers of food in/security: Workshop participants were asked to discuss the drivers that had been identified through expert interviews, to evaluate the drivers, and to add to the list drivers that may have been missed. Below is a list of drivers identified through expert interviews and discussed at the workshop.

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. Value of food 2. Health of Wildlife (multiple observations determine the health of animals) 3. How to determine Health (what are the causes of ill health in humans and animals; how are these determined) 4. How to determine mental health (mental health associated with relationship to the environment, to animals) 5. Accessibility (accessibility may be impacted by the loss of language and/or education; accessibility can be stopped by regulations, etc.) 6. Cash / subsistence economy (a lack of understanding outside Indigenous communities about Inuit reliance on a mixed economy or the reality of things like the high cost of fuel and other commodities) 7. Language (retention or loss of language) 8. Education (transfer of knowledge from elder to youth) 9. Government subsidies (food stamps, WIC programs; what is being subsidized; what should be subsidized) 10. Loss of sea ice (consequences) 11. Change in sea ice (consequences / | <ol style="list-style-type: none"> benefits: climate regulator, marine hazard, coastal buffer, use for transportation, cultural services, support of food webs and diversity) 12. Impact of scientific research (disrespect of animals) 13. Sharing systems 14. Adaptations to changes (what adaptations are being made; what inhibits or adds to the ability to adapt; adaptation day to day; adaptation by weeks; adaptation by months, adaptation by years for decision making) 15. Increase competition (sports hunters, tourist, environment NGOs, industry, etc.) 16. Ones control over ones own fate (how much decision power does a community have over what occurs within their environment) 17. Diversity (Variety in food sources; increase and/or decrease) 18. Contaminants 19. Burden of conservation 20. Inuit Food Systems 21. Rate of change |
|--|--|



- | | |
|--|---|
| <p>22. Must consider what the cost-benefit trade-offs associated with systems designed to cope with uncertainty within an Inuit village. What are these systems? Have they been internally established? Have they been introduced by outside cultures?</p> | <p>23. Determination of quality of life (what determines quality of life)</p> <p>24. Impact of a mixed diet</p> <p>25. Change in food storage</p> <p>26. Stability of ground</p> <p>27. New species</p> <p>28. Change in temperatures</p> |
|--|---|

Participants agreed with the above drivers (identified through expert interviews), offering detailed information and examples. They also provided the below additional drivers.

1. Food systems yesterday – today
2. Industrial activity
3. Health of animal/water
4. Tourism
5. Safety
6. Value (cultural and economic)
7. Erosion
8. Alteration in hydration system



Photo By: Minnie Naylor. 2013

The following concepts/questions were generated from the North Slope regional food security workshop. These concepts/questions will be incorporated into our ongoing data analysis activities.

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Inuit Ecosystem (a term/concept to explore...may be used to describe an Inuit understanding of the Arctic ecosystem) 2. What needs to be done to protect the Inuit ecosystem? 3. Respect of animals. What does respect for animals mean? 4. What are the Inupiaq laws / how are they being changed? Traditional Laws 5. Change in Sea Ice Consequences/ Benefits (Animals, Plants, Culture) 6. How to determine living Condition – how to determine social conditions? | <ol style="list-style-type: none"> 7. How to determine health of life? 8. How to determine variety (biodiversity) 9. Government Agencies advocating against the consumption of Native foods (EPA, etc..) <i>argument</i> is for conservation and/or health of people. 10. Assimilation 11. Self identity 12. Shipping 13. Industry 14. Forced adaptability 15. Commercialization of the environment 16. User conflict |
|--|---|

The below section describes points raised and a general overview of discussions held throughout the workshop. Though this section is broken into main headings, all headings are interlinked with each other.



For example, one cannot speak about access and availability without also considering physical and mental health, education, changes in weather and climate, etc.

On Lack of Decision Making Power -

The participants discussed the impact of being forced to use another culture's standards to live within the Arctic and the dismissal of their own knowledge and way of living. Examples were given of industry, state and federal regulatory agencies, and conservation organization activities that show a lack of knowledge of the Inuit culture and connectivity to the environment. Many of the themes highlighted below are directly connected to a lack of decision-making power.



Photo by: Minnie Naylor. 2013

On Education –

A participant Elder shared that when he was growing up, Inupiaq education was about survival and respect for animals. Education has transformed over the past 50 years. Much of this transformation was forced through imposed western language and life style. The participants spoke of traditional education (drawing, music, art, dance, processing and storing food, knowledge of the Arctic environment and all its interconnections, etc.); they also spoke of the importance of higher education and encouraging children to learn both traditional ways and gain a westernized education; and of the restriction of natural intelligence and the impact of assimilation through education systems. Within this conversation was discussion of the importance of creating a balance in education systems. Participants also voiced frustration in being told that their way of life is wrong and dismissed by non-Indigenous peoples.



Photo By: Minnie Naylor. 2013

On Language –

As communicated through expert interviews, language defines reality. With the loss of language comes the loss of a way of interpreting the world around you and communication between generations. Language is used to communicate where food is located, weather conditions, age of animals, processing, respect, etc. The loss of the Inupiat language is also linked to a loss of transfer of knowledge, through an inability of generations to communicate with each other. Participants spoke of the importance of teaching children why it is important to learn their native language; what the objective of learning the language is.

On Transfer of Knowledge –

Participants stressed the importance of what has been passed on to them by their elders. For example, passing knowledge of how to properly prepare, process and store food to prevent spoiling. Additionally this knowledge is passed on through the use of the Inupiat language. For example, Inataqtuaqunilluna savaaniqunniluna (do not hunt in excess) is a fundamental understanding amongst Inuit.



On Change in Processing and Storing Food -

As traditional food is gathered, excess is stored for future use. Fermenting meat and fish is a good way to store food. In recent years people began to ferment meat in plastic containers instead of wooden containers or the skin of an animal. As a result there have been outbreaks of botulism. Participants also expressed that with changes in temperature there is an increasing need to find new ways of storing food. The loss of ice cellars and permafrost is a good example.

On Economics –

Economics play a key role in Inuit food in/security. The Inuit traditional economy includes trading, bartering, and sharing. Many of these systems, such as sharing systems, have assisted in maintaining food security throughout Inuit history. Today, most people rely on what has come to be referred to as a ‘mixed cash and subsistence’ economy. In this context, participants spoke of the impact of cost of fuel on hunting strategies or an inability to obtain food. The point was raised that many people are faced with difficult choices

today. For example, it is not uncommon to have to make a decision between hunting for food, which, they may not obtain, and buying food from the store (regulations on timing exasperate the difficulty of making such decisions). The discussion also reflected on preliminary findings of the project regarding government subsidies, culturally appropriate subsidies, and inter-regional travel.

On Ecosystem services evaluation: “ We never placed a [monetary] value on our subsistence resources. We don’t have a base value on a whale, seal, fish or other resource.”

Weather and Climate–

Weather conditions dictate what kind of activities you conduct; what movements you make. Changes in weather patterns result in changes in accessibility to food sources and changes in hunting strategies. For example, one participant pointed out that many fish migration patterns are very similar to the past, however access to the fish is changing. The participant offered the example of fishing on the Ikpikpuk River, “...our access is hampered...we now require equipment to access the fish, such as snow machine and boats”.

Discussions included descriptions of changes and impacts of changes in atmospheric and water temperatures, changes in salinity, changes in currents, etc. It was noted that many of these changes began to be shared with scientists 15 years ago, in some cases longer. There is a desire to have a greater understanding of the changes occurring within the physical elements of the ocean, with an understanding that this results in changes of food web dynamics. Expert Interviews also share information on the changes in ocean currents, vertical stratification, changes in salinity levels, temperatures, etc. There is an understanding that there is a link between these changes and species distribution and well being (not sole



Photo By: Minnie Naylor. 2013



cause and effect; it is also noted that there are multiple causes of the changes being observed in both physical elements of the water and life).



Photo by Nicole Kanayurak. 2013

The changes occurring in Arctic ice distribution and formation is of high concern. North Slope villages have noted the importance of sea ice and its connections to and impacts on the terrestrial environment, ocean currents, availability and location of subsistence species, prey availability for subsistence species, the ability of hunters to travel safely and access resources, and the health and safety of both animals and Inuit.

A whaling captain offered information on the change of air and water temperature and sea ice impact on hunting activities. This year ice inhibited access to bowhead whaling in Barrow, resulting in no spring whaling. A description of the result of no spring whaling in Barrow was discussed during an expert interview prior to the workshop. The expert described the spirit of Barrow as being very low.

An incident was described in which young men started to drink and exhibit behavior considered disrespectful of the environment. Similar situations have been described in other villages throughout their history. Traditional Knowledge experts have explained and used such incidences as an example of negative consequences associated with separating Inuit from their environment and severing a relationship between peoples and animals. This further supports the argument that there is positive feedback between the Inuit culture and Arctic systems. It is an understanding of the participant experts and Inuit contributing authors that when activities such as whaling do not occur there is a rippling effect throughout the community, resulting in a loss of opportunity to transfer knowledge across generations, a loss of opportunity for social interaction, changes in sharing systems, etc.

The long term change in sea ice is of great concern for multiple reasons. One reason is the increased accessibility that the change in sea ice offers the rest of the world to the Arctic. Participants also discussed a high concern over loss of multi-year ice. The loss of multi-year ice comes greater involvement of activities under other cultures, such as tourism, and change in weather patterns, etc. Additionally; multi-year ice is a source of fresh water. The change in ice has resulted in changes in hunting and processing activities over the past few generations. For example, a whaling captain's wife described how the change in ice has affected her activities as part of the whaling crew. At one time she would assist in



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the cooking and providing of dry clothes to the whalers, taking partial responsibility for the whalers on the water. With the instability of young ice, this is no longer possible.

With a lack of sea ice, villages such as Nuiqsut are seeing an increase in marine mammals swimming up the river to haul out. Animals such as, oogruk (bearded seals) and other species of seals are arriving stressed and exhausted.

Point Hope raised concerns over the sigluaq (ice cellars) and the need to constantly qalutaq (bail). Additionally, this year (2013) Point Hope received a lot of rain in November, when everything should have been frozen. Sigluaq are used to store food for village feasts in addition to family caches. The melting of ice cellars has been identified as a driver of food insecurity throughout the North Slope region and other regions. Other regions express concern over the loss of permafrost that impacts the communities' ability to keep food frozen in the ground. Ice cellars play an important social role, in holding food for multiple families, and/or the village.

Additional conversations regarding permafrost included concerns about associated erosion, including exposed graves, etc. These concerns were also highlighted in expert interviews.

It was shared that Anaktuvuk Pass has experienced an increase in rain during the winter, explaining that it causes everything to die. In Oct. 2013, the snow came and froze, and then it started to rain, melting the snow. If it had only partially melted the snow it would have then froze and the animals would not be able to get out and around. It was further explained that if the caribou population dies off the rest of the animals suffer. The understanding of interlinking trophic levels is an important point to draw from this experts interview.



Photo By: Minnie Naylor. 2013

Coupled with the conversation about changes in weather and climate is an expressed understanding of the impact of increasing contaminant rates on all Arctic life. A resulting affect is burden of conservation, change in regulations, change in hunting strategies, poor physical and mental health, etc. These points are seen as some of the overarching drivers of food insecurity associated with climate changes and will be further expanded on in the final project report.

On Availability and Accessibility –

The project preliminary results show that accessibility to traditional food sources may be impeded by multiple stressors and processes such as: loss of transfer of knowledge, lack of fuel, lack of access to transportation, time constraints, loss of language, change in animal distribution caused by research activities, sport hunters, and /or industrial activity, regulations that conflict with traditional practices, and others.

Throughout the project Traditional Knowledge holders have used the term availability to describe biodiversity of the Arctic in addition to abundance and ecosystem health. Discussing biodiversity, or variety, participants stated that there is an increase in species in some areas and a decrease in others. The



workshop participants described availability and accessibility to go hand-in-hand and further explained the economics.



Photo By: Minnie Naylor. 2013

A discussion of many of these areas extends the conversation into the topic of user conflict. For example, participants pointed out the impact of high expense associated with hunting coupled with regulations. Hunting is often regulated by government agencies through regulating hunting times and areas which hunting may take place. Such regulations may conflict with Traditional Knowledge and/or require hunters to travel further from a village to obtain food. There is a concern that many non-local hunters do not share the same financial restrictions and are therefore viewed to have greater accessibility. Sports hunters are often able to utilize helicopters and other equipment to access

remote areas. The non-local sports hunters further decrease Inuit hunting success through lack of knowledge. For example, non-local hunters will often hunt north of Anaktuvuk Pass, scattering the caribou herd and causing a change in their distribution pattern. The caribou are then diverted from traditional migration paths located near village and creates increased difficulty for local hunters to harvest.

Areas with fewer sources of food become more dependent on cultural and ecological important species. For example, Anaktuvuk Pass is highly dependent on caribou for their spiritual, educational, caloric, nutritional, overall physical and mental health, and well-being. When the caribou migration is disrupted through user conflict, change in weather and/or climate, etc. there is a large impact on the village. A participant explained that this last year (2013), the caribou stayed up North much longer. Hunters were unable to travel north due to cost and accessibility. The result was no caribou for the drying season and a loss of opportunities to share knowledge, language, social gatherings, nutrients, sewing material (sinew), etc.

On Regulations -

Strong frustration was voiced about the lack of decision-making power that Inuit people hold over an environment that they are part of and depend on. Several participants expressed the existence of expert knowledge of the Arctic ecosystem found within Traditional Knowledge and the thousands of years of experience in managing activities. Participants described the impact of being forced into another cultures' perspective of animal respect and caring for the environment. This discussion also encompasses the topic of regional and national co-management and the need for truly effective co-management within the state of Alaska.

Current management regimes have disrupted traditional management practices found within the Inuit culture, resulting in further disrespect and damage to the ecosystem. One participant shared the following on regulations:



“...extended families shared in the construction, maintenance, hunting and sharing of the harvest to make use of the boat, to find use of the boat for something. For example, a fishnet was always in the boat for somebody to find an effective use by setting a net from the beaches. Preservation of our animals; we get what we need only. In the past when some did something wrong we were sat down in village gatherings and the whole village reprimanded us...”

Participants also discussed increase in monitoring and general observation of Arctic peoples by the outside world. People are increasingly turning their attention to the Arctic and applying their own value systems and knowledge to an environment that they are unfamiliar with. For example, there is a growing concern for people outside of the Arctic who observe hunting practices and assume that wasting is taking place. An elder warned the group to be careful because people are watching and are unfamiliar with Inuit

practices. For example, if a caribou is in pain, suffering, and likely to die, it is the hunter's responsibility to kill the caribou and cut it up for other animals. To outsiders, this may appear to be wasteful because the hunter does not take the meat, but to the Inuit, this is respectful towards the sick animal and other animals, and protects them from consuming potentially unsafe foods.

On Development –

The participants discussed the impact of development activities (such as, oil and gas exploration, industrial fishing, etc.) on food security and the impact of not involving their knowledge in the various processes related to initiating development. For example, there is great concern about the development of roads and the disruption they have to caribou migration patterns and the need to view such a change holistically; to understand the connectivity between all of the drivers identified. Participants expressed the dire impact such development has on villages such as Anaktuvuk Pass.

Currently haul roads, used to transport resources, are being developed and/or proposed. The proposed haul road near Anaktuvuk Pass will pass through caribou migration routes. The proposed road is part of the 'Roads to Resources' program, geared to increase infrastructure and economic growth. As a participant expressed, Anaktuvuk Pass depends highly on caribou and believes that the way to maintain food security is to not have a road. Participants voiced similar concerns of development activities surrounding the village of Nuiqsut. Hunters in Nuiqsut are traveling further and further from their village to find caribou, which have changed in migration patterns. The reasoning for changes in caribou migrations are attributed to the annual installation of ice roads used to haul resources. Additional, development activities such as seismic exploration are also thought to be causing a change in animal migration patterns. Participants expressed a need to have Environmental Impact Assessments, which



Photo By: Minnie Naylor. 2013



adequately include Traditional Knowledge, to be conducted on both State and Federal lands in order to better inform decisions being made.

Participants also discussed concerns of important ecological areas and the need to have this knowledge shared with industry and government in order to protect animals. For example, beluga, walrus, etc. utilizes Hannah Shoal as a feeding ground. As the marine mammals migrate to and from Hannah Shoal they rest on the beaches of Point Lay.

Participants also spoke of the need to learn from villages within the region that have already undergone severe changes in their level of food security and way of life as a result of increased industrial activity. As one participant stated, "...our village has shrunk surrounded by oil; we don't see the caribou...". People now need to travel further and further away to obtain food. This same village depends highly on fish returning from the ocean. This fish is also shared with the other villages. Recently, a die off of fish within the Colville River occurred (Oct. 2013). The reason for the die off is still unknown and has resulted in community anxiety over food security.

While many workshop participants expressed a desire to share their knowledge, there is concern that their TK is being used against them through various inappropriate practices. Practices such as cherry picking data, or choosing information shared by TK holders to support one's own arguments and agenda. This practice commonly utilizes a small piece of information without offering the entire context and meaning behind the information that has been shared. This raises the need to establish methods of sharing information and intellectual property rights.

On Increase in Shipping Activities -

A participant expressed the need to begin documentation of the ways that Traditional Knowledge holders predict (or know/have seen) that increasing ship traffic in the Arctic may impact Inuit communities and the marine environment that they depend on for food, spirituality, etc. This information needs to be collected, reviewed and verified by communities, and shared with decision makers. It is understood from all the expert interviews and the workshop participants that shipping activities may cause a negative impact on the environment and a decrease in food security. As pointed out at the workshop, there are many examples in the past of how shipping has disrupted marine mammal migration. Such information should be included in the final product report as a means of grounding the information that has been gathered from experts.



Photo By: Minnie Naylor. 2013

On Connectivity and Self Identity-

As a participant pointed out, many connections between people are based on traditional foods. Self-esteem and self-identity are tied to the entire ecosystem. Participants also discussed the importance of a first catch to food security. Children are taught that the first animal they catch of a season must be given to an elder; connecting concepts of self-identity, education, language, knowledge of the environment, respect for animals, etc. As one participant shared, "...I want my son to have that [first catch], other kids can't, or don't have the means." A child's first catch is rooted in self-identity; an activity, which defines a new chapter in the child's life as the child,



moves from being a receiver to becoming a provider. Such activities initiate learning of multiple Inuit values such as, one's responsibility to care for the world around them.

Summary – The North Slope Regional Food Security workshop provided a necessary step in evaluating and validating information that has been gathered through expert interviews and aids the overall validation process. Tribal Councils and ICC-AK regional membership organizations nominated TK experts who participated in the workshop. This select group of people was chosen based on their wealth of knowledge and expertise; knowledge and expertise needed to review the information gathered through expert interviews.

The workshop participants reinforced and confirmed the information gathered thus far, further stressing the need to demonstrate impacts of accumulative impacts and interconnections that exists between the Inuit culture and Arctic environment.

The final assessment tool and report will be shared with all Tribal Councils, Regional Organizations, State and Federal government agencies, industry, and conservation groups. ICC-AK will share the tool and report with working groups of the Arctic Council with proposals to conduct a food security assessment throughout the Arctic. The tool and report will provide information on what needs to be considered when looking at the Arctic ecosystem in addition to educating people on what food security is and how to look at environment holistically by applying a food security lens.



Appendix 1: Project Summary

“An Inuit Perspective On Food Security In The Alaska Arctic: Building A Framework On How To Assess Change In The Arctic.”

This project fits within ICC-AK’s 2010 Strategic plan, where food security is listed as a top priority.

SUMMARY: Inuit hold a unique understanding of food security within the Arctic; viewing food security to encompass both cultural and environmental systems; systems which interlink and support each other. While many changes are occurring within Arctic ecosystems, primarily resulting from climate change and industrialization, food security is becoming a central topic of conversation. Research shows that food security definitions and assessment mechanisms do not necessarily match the Arctic ecosystem or cultures within. In response to the need to address food (in)/security of traditional food resources within a changing Arctic, the Inuit Circumpolar-Council Alaska (ICC-AK), has commenced building a framework on how to assess food security from an Inuit perspective.

STATEMENT OF NEED:

Arctic communities have developed a rich culture, shaped by the dynamic environment in which they live and centered on the harvesting of Arctic flora and fauna. Inuit traditional Arctic foods such as caribou, waterfowl, salmon, seal, salmonberries, and sura (diamond-leaf willow) provides food, fiber, shelter, medicines, energy, nutrients, and spirituality; all of which play a part in food security. ICC-AK recognizes food security to be inclusive of both cultural and environmental systems.

In an environment where food provides more than calories, issues surrounding food (in)/security become multi-faceted and may require the identification of food security vulnerabilities throughout the entire food web. Such an approach aims to combine various sources of knowledge and research, such as research addressing the impact of high fuel costs on hunting strategies, socio-ecological relationships, and cultural structures in addition to changes in species distribution, nutrient intake and quality of food.

While the world focuses its attention on the Arctic, industry, academic institutions, governments, etc. are conducting numerous assessments to better understand how far this unique environment can be pushed before reaching a tipping point. From an Inuit perspective, assessments take place through a food security lens, allowing one to see where the inter connections between systems lie. The finished framework will be a tool to enhance the ability of Inuit communities and scientists in working together to holistically understand changes occurring within the Arctic. As well as provide an understanding for elected leaders and policy makers the concept of food security in the Arctic, what the drivers are, and what will need to be monitored in order to create action plans.

Objectives and Outcomes

Through literature reviews, community meetings, semi-directive interviews and gathering of traditional



knowledge this project will identify the baselines needed to assess the vulnerabilities of food security. The established baselines will identify what Inuit priorities are in assessing food (in)/security and where vulnerabilities lie. For example, baselines may include the need to have full understanding of ice coverage to understand food web dynamics; an increased utilization of traditional knowledge applied to under ice currents to gain a better understanding of salmon distribution; or for an increase effort to be applied to establishing food web models that move beyond one-dimensional energy transfers, incorporating abiotic vulnerabilities and/or the human dimension. The project will contribute to our understanding of the pressures to traditional food resources and communities that are resulting from climate changes and increased human presence and development in the Arctic.

Three objectives will be met within this project: 1) provide an understanding of Arctic food security, from an Inuit perspective; 2) provide a tool to assess food security across both cultural and environmental systems; 3) identify what will need to be monitored in order to create action plans. These objectives will be met through two phases. In the first phase Inuit perspectives and TK will be sought and developed through semi-directive interview, community meetings, and information gained from previous projects and regional workshops. In the second phase, the developed framework will be shared with the Arctic Council with encouragement to conduct the assessment throughout the entire Arctic.

The project timeline began July 2012 and will finish in March 2015. Through this timeline the above objectives will be accomplished through multiple phases of data gathering, analysis and information sharing.

The first phase will consist of data gathering in which the community perspective and TK will be sought and developed through four tiers of information (listed in order of magnitude). To ensure community participation throughout the project ICC-AK will visit approximately 16 communities within the Yukon-Kuskokwim, Bering Strait, Northwest Arctic and North Slope regions, along the Bering, Chuckchi and Beaufort Seas. Tier one is information obtained from Inuit community members through semi-directive interviews and community meetings; tier two is information obtained from phone conversations with all tribal councils represented by ICC-AK; tier three is information obtained through raw data collected from past and ongoing projects conducted by ICC-AK member organizations and organizations supported by regions; tier four is information obtained from past projects conducted by academic institutions, government agencies, industry and NGOs.

In the second phase, a regional workshop will be held in each region. Through the regional meeting representatives from communities will meet to discuss the preliminary outcome of the project and further inform on assessment techniques and needs. A meeting report will be drafted and shared with all community participants.



Appendix 2: Invitation Process, Workshop Elected Experts, And Attendees

Experts were nominated by their village tribal council to represent their respective village, recognized as an expert amongst their peers. Regional ICC-AK membership organizations were asked to each nominate one expert to participate in the workshop.

Criteria for nomination are:

1. Engagement in hunting, gathering, fishing and processing of traditional food sources;
2. Appropriate experience to help further the goals of the project; and
3. High interests in the project and willingness to commit to its outcome.

Participants and associated Tribal Council / Regional Organization:

Enoch Tooyak - Point Hope (Unable to attend due to death in the family)

Lee Kayotuk - Kaktovik (Unable to attend due to illness)

Kathareen Lieb- Atkasuk (Unable to attend)

Charlie Brower – Native Village of Barrow

Terry Tagarook – Wainwright

Edward Nukapiagak – Nuiqsut

Anna Nageak- AKP

Marie Tracey – Point Lay

Wesley Aiken – Barrow

William Leavitt, Sr. - Barrow

Robert Suvlu – ICAS

George Olemaun – ICAS

Taqulik Hepa – NSB

Qaiyaan Harcharek – Food Security Advisory Committee member / NSB

Harry Brower – NSB

Flora Brower - Barrow

The workshop was organized and conducted with assistance of a planning committee. The planning committee assisted in contacting villages, organizing meals and housing, and in facilitating breakout groups. Thank you!

Carolina Cannon – NSB (Caroline also contributed valuable information to the discussion)

Nicole Kanayurak – Food Security advisory committee youth representative / NSB

Heather Dingman – NSB

Robert Suvlu – ICAS

Doreen Leavitt – NSB

Kathy Ahgeak- NSB

Joni Edwardsen – ASRC

Additional people joined to observe the workshop and hear from the experts:

Charlotte Brower

Leslie Pierce

Billy Adams

Leonard Barger



Raphaela Stimmelmayer
Qinugan Roddy

Bill Hess
Bob Harcharek

Appendix 3: Workshop Letter of Invitation

FOOD SECURITY WORKSHOP ***BUILDING A CONCEPTUAL FRAMEWORK ON HOW TO ASSESS FOOD SECURITY*** ***FROM AN INUIT PERSPECTIVE***

The Inuit Circumpolar Council (ICC) – Alaska will hold a food security workshop in Barrow, AK, November 12-14, 2013. The workshop will attendees will include one expert from each village. We invite the Alaska Eskimo Whaling Commission to select three possible experts to attend the workshop. Do to a short time frame, we ask that you submit the nominees to the ICC-AK office no later than October 11, 2013.

The workshop is part of the larger food security project, “Building a Conceptual Framework on How to Assess Food Security From An Inuit Perspective”. Since July 2012 we have visited fourteen villages to collect Traditional Knowledge and perspectives through semi-directive interviews and community meetings. With the information gathered we are now prepared for the next phase of the project, to host regional workshops.

The workshop will include presentations of to date research results, bringing Traditional Knowledge holders together to discuss food security, provide feedback, and assist in the development of the framework. All of the information gathered will feed directly into the development of the framework.

We ask that each of the Tribal Councils, and organizations, chose three potential experts to attend the workshop. Based on the nominations, the planning committee will make a decision regarding workshop invitees, choosing one of the three nominees, and final approval will be given by both the respective Tribal Councils / Organization and the planning committee. Nominees should be chosen with the understanding that they will represent the thoughts and ideas of their village. Please consider both male and females in the people that you chose. Please use the below criteria in choosing your nominees.

Criteria for nomination are:

1. Engagement in hunting, gathering, fishing and processing of traditional food sources;
2. Appropriate experience to help further the goals of the project; and
3. High interests in the project and willingness to commit to its outcome.

Workshop Brief Agenda and Logistics:

The workshop will be held at the Iñupiat Heritage Center. A small potluck will be held the evening of Nov. 12th to kick things off and offer information on the project to the community. The following two days will be limited to the invited experts.

The workshops will work to accomplish the following goals:

- 1) Discussion regarding the preliminary findings of the project
- 2) Provide a consensus on food security definitions



- 3) Identify what drivers of food security and insecurity may be missing
- 4) Determine methodologies found within Traditional Knowledge use for the assessment and analysis of the identified drivers.

Appendix 4: Information Provided to Workshop Participants Before Meeting

Background:

Community members across the Alaska Arctic have expressed an interest and a need to assess changes occurring through a food security lens and to be involved in continuing a stewardship role within the Arctic. The overall accumulative and rapid increase in cultural, biological and physical stressors are affecting Inuit traditional food systems and overall food security. However, research shows that food security definitions and assessment mechanisms do not necessarily match the Arctic ecosystem or cultures within. Inuit possess a unique understanding of food security within the Arctic; viewing food security to encompass both cultural and environmental systems; systems which interlink and support each other. In response to the need to address food in/security of traditional food resources within a changing Arctic, ICC-AK, has commenced building a framework on how to assess food security from an Inuit perspective. The proposed project is indigenous-led and based on Traditional Knowledge, bring forward a greater representation of Inuit. This project will produce a valuable synthesis of community concerns regarding food security in the Arctic, in addition to a tool through which to assess food security.

Over the two day workshop participants will be asked to validate the information that has been gathered, to contribute additional information where needed, to assist in the analysis of this information, and to address all three objectives of the workshop:

- 1) Provide a consensus on concepts/terms to be included in a food security definition
- 2) Validate the drivers that have been identified and provide additional drivers that have yet to be included of food security and insecurity
- 3) Determine methodologies found within Traditional Knowledge use for the assessment and analysis of the identified drivers.

Information gathered from this workshop will feed directly into the drafting of the conceptual framework on how to assess food security. The assessment tool will be shared with all Tribal Councils, Regional Organizations, Industry, NGOs, Government Agencies, and the Arctic Council.

Understanding the environment through an Inuit perspective, through a food security lens, will help inform what decisions need to be made and a better understanding of the changes occurring within the Arctic. When the Inuit communities share their Traditional Knowledge, it is never based on one aspect. For example when hunters speak about walrus, they speak about the health of the walrus, about stomachs smaller than what is in living memory, about the changes in benthic species found within their stomachs, about the change in benthic species along the shore line, about changes in sea ice, and how all of this may be affecting that walrus and their community.



Ultimately, the framework will be a tool to enhance the ability of Inuit communities to adapt to the changing environment, as well as provide an understanding for elected leaders and policy makers the drivers of food insecurity and food security.

Example of Food Security Definitions (these definitions do not necessarily fit an Inuit perspective):

1. The state of being in which “all community residents obtain a safe, culturally acceptable, nutritionally

adequate diet through a sustainable food system that maximizes community self-reliance and social justice” – Dr. Michael W. Hamm and Anne C. Bellows

2. Traditional food systems amongst Native communities are part of the web of life, with strong connections between food and the health of the environment.

3. Food security is a term used to describe whether a person or a group of people has access to food. A group is food secure when “all people at all times have access to sufficient, safe, nutritious and cultural appropriate food to maintain a healthy and active life.

4. When all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life. Commonly, the concept of food security is defined as including both physical and economic access to food that meets people's dietary needs as well as their food preferences

Preliminary Understanding of Food Security from this project:

In this environment we easily see that food security is synonymous with environmental health. An environment is considered healthy when all parts are fit together. One elder explained that the Arctic environment is like a puzzle, with all pieces having a place and needed to make up the entire puzzle; this includes native languages, retention of traditional knowledge, animal health, etc. Within this understanding there is an emphasis on the continuously changing Arctic environment with pieces of a puzzle adjusting to each other.

What we know so far is that an accumulation of stresses is causing food insecurity, that food security is synonymous with environmental health from an Inuit perspective, where the term ‘environment’ includes culture as well as part of the ecosystem; that decisions need to be based on both traditional knowledge and science and that means that research needs to be based on both...with greater involvement and looking at the Arctic through a food security lenses adaptive management, a holistic understanding of the arctic systems and preservation of the entire ecosystem.

This understanding has brought to light the need to identify indicators that may be used to assess both social and physical systems...understanding that the integrity of all systems is needed to obtain optimal health.

Words that may be used during the workshop:

Assessment: An assessment is a process used to review and understand a situation, and guide decisions about that situation.



Indicator: Indicators are measurements that can be used to demonstrate the status of social, economic, and environmental conditions within a community. Indicators are the pieces of information or data needed during an assessment to understand the overall situation in the community (e.g. the number of active hunters in a community could be an indicator of how much traditional food is available to the community).

Food System: The food system is everything involved in feeding a population. This includes growing, harvesting, processing, transporting, consuming, disposing of foods and food products, education, language, etc.

Traditional Foods: those foods that Indigenous peoples have access to locally, without having to purchase them, and within traditional knowledge and the natural environment

The Project Needs to: Aspire to strengthen the evidence base of current circumstances surrounding food systems and health. Key concepts integral to promoting Inuit health and wellbeing include maintaining cultural identity, positive family dynamics, social support, spirituality and environmental integrity. Traditional food is center to Inuit identity and well being.

Concepts pulled from expert conversations. In reviewing these concepts try to consider what each one means. How do we express to an outside culture what these concepts mean from an Inuit perspective? What are the associated consequences and benefits?

1. Value of food (“ Wellness is never just a physical condition. Wellness is the healthy interconnectedness of the environmental, spiritual, social, and cultural. Today food is an industry. Even nutrition programs, like some of those offered at schools are run like assemble lines, getting people in and out as fast as possible”.)
2. Health of Wildlife (multiple observations determine the health of animals)
3. How to determine Health (what are the causes of ill health in humans and animals; how are these determined)
4. How to determine mental health (mental health associated with relationship to the environment, to animals)
5. Accessibility (accessibility can be stopped by the loss of language and/or education; accessibility can be stopped by regulations, etc.)
6. Cash / subsistence economy (a lack of outside culture understanding of dependency and importance of both economies; cost of gas)
7. Language (retention or loss of language)
8. Education (transfer of knowledge from elder to youth)
9. Government subsidies (food stamps, WIC programs; what is being subsidized; what should be subsidized)
10. User Conflict
11. Increase in Shipping Activity
12. Regulations
13. Loss of sea ice (consequences)



14. Change in sea ice (consequences / benefits: climate regulator, marine hazard, coastal buffer, use for transportation, cultural services, support of food webs and diversity)
15. Impact of scientific research (disrespect of animals)
16. Sharing systems
17. Adaptations to changes (what adaptations are being made; what inhibits or adds to the ability to adapt; adaptation day to day; adaptation by weeks; adaptation by months, adaptation by years for decision making)
18. Increase competition (sports hunters, tourist, environment NGOs, industry, etc.)
19. Ones control over ones on fate (how much decision power does a community have over what occurs within their environment)
20. Diversity (Variety in food sources; increase and/or decrease)
21. Contaminants
22. Burden of conservation
23. Inuit Food Systems
24. Rate of change
25. Must consider what the cost-benefit trade-offs associated with systems designed to cope with uncertainty within an Inuit village. What are these systems? Have they been internally established? Have they been introduced by outside cultures?
26. Determination of quality of life (what determines quality of life)
27. Impact of a mixed diet
28. Change in food storage
29. Stability of ground
30. New species
31. Change in temperatures
32. Contaminants: List of food characteristics: tastes of food, preference for food, season, location, how long people have been eating that food source, quality of food
33. Increase in Industry activity – lack of involvement of how activities take place and where they take place.

Questions to consider: The below questions have been generated from conversations with the project contributing Inuit authors. These questions will not be asked at the workshop, however they may aid in preparation of the workshop.

1. What kinds of foods are in your community?
2. How many seasons exists within your environment?
3. Who decides what foods are available in your community...regulations?
4. Do people in your community rely on others to provide them food?
5. What resources are required (land, water, gasoline, distribution costs, etc.) to produce food for your community?
6. What impacts on the environment result from the shipment of the communities food
7. How would the community get food if a natural or other disaster stopped shipments?
8. How many jobs could be created if the community had control over commercial activities such as, fishing, sports hunting, etc.
9. Is food access identified as an essential service (like roads, schools, water, etc.)?
10. Do decision makers consider environmental impacts?
11. What are the pros and cons included by decision makers?
12. Does the community consider 'social nutrients'?



13. Are young people taught food production and preparation, and connecting them to other community issues through food traditions?
14. Who decides what is done to the water in your community?
15. Who decides what occurs with the land in your water?
16. Do environmental regulations exist for your community? Do they protect your community's food safety and natural resources? Who determines what those are? Who enforces them?
17. What is the Arctic food chain?