

Northwest Arctic 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. 2014*

Inuit Circumpolar Council-Alaska



Photo by Minnie Naylor



On February 5th and 6th of 2014 Traditional Knowledge Experts¹ came together to evaluate and validate preliminary findings and information gathered under 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 Northwest Arctic Regional Food Security Workshop is an important part of the overall project methodology, allowing for greater engagement of Arctic villages and a preliminary validation process. Traditional Knowledge 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.

This report provides a summary of the information discussed during the Northwest Arctic 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 project. This report should be cited as: Inuit Circumpolar Council – Alaska. 2014. Northwest Arctic 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*. Anchorage



Northwest Arctic Regional Food Security Workshop Participants and Observers. Photo by NPS staff.

¹ The term expert was used to describe people chosen by their respective tribal councils as holding a high amount of Traditional Knowledge amongst their peers. Though the workshop participants noted discomfort of the term expert it was agreed that they were chosen for their high Traditional Knowledge and ability to evaluate and validate the preliminary findings presented. Moving into the drafting of the final product a different term will be adopted. Inuit Circumpolar Council – Alaska. 2014. Northwest Arctic 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*. Anchorage



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Thank you!

The workshop was successful in large part due to the contributions of our membership organizations. Maija Lukin, Denali Whiting, Liz Moore, Millie Stalker, Minnie Naylor and Chloe Naylor provided invaluable assistance in planning and organizing the workshop. A special thank you to Pauline Harvey, one of the meeting participants, who took diligent notes throughout the workshop and was very generous in sharing them with the group. Percy Ballot and John Goodwin also provided invaluable contributions in planning of the workshop. Everyone went above and beyond.

Our membership organization from the Northwest Region includes Maniilaq Association, NANA Regional Corporation and the Northwest Arctic Borough. Each of these organizations helped with the costs for interpretation, the potluck and helped with the logistics for the meeting. The potluck allowed us to thank the participants and to enjoy niqipiaq (traditional foods). Maniilaq Association and NANA Regional Corporation contributed with a catering lunch, transportation for participants and most importantly, valuable staff time to assist in the planning and facilitation of the workshop. Maniilaq Association donated additional funding to assist with lodging cost. The National Park Service provided a location to hold the workshop and wonderful friendly staff always ready to offer a quick smile and answer questions. The regional village Tribal Councils worked to identify respective experts within their villages to attend the meeting. In addition, the Shungnak Tribal Council funded the participation of one of their council members to provide expertise and translation. The workshop was further made possible through financial contributions provided by Bering Air, ConocoPhillips Alaska and World Wildlife Fund for Nature. Thank you to the following people for reviewing and commenting on the draft version of this report: Denali Whiting, Pauline Harvey, John Goodwin, Percy Ballot, Grant Ballot, and Minnie Naylor.

And of course, thank you to all of the participants (Traditional Knowledge 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 to provide missing information. Many of the meeting participants will further engage in the project as contributing authors of the final product.



Photo by Maija Lukin



Villages visited as part of the ICC-AK food security project from 2012 to 2014.



Eighteen Traditional Knowledge (TK) experts (referred to as participants within the report) attended the workshop. A few people joined the workshop as observers, such as a youth representative from the village of Kotzebue. A full list of participants and observers is in Appendix 2. Below is a list of the workshop participants:

Grant Ballot – Selawik
Ernest Barger, Sr. – Buckland
Pete Schaeffer - Kotzebue
Beulah Ballot – Kotzebue
Pearl Goodwin – Kotzebue
Willie Goodwin – ICC-AK elder's representative
Leslie Sampson Sr. – Noorvik
Robert Iyatunguk – Deering
Ben Atoruk – Kiana
Ethel Wood Sr. – Kobuk
Susie A. Sun – Shungnak
Mildred Black – Shungnak

Percy Ballot – Food Security Advisory Committee
John Goodwin – Food Security Advisory Committee
Pauline Harvey – Maniilaq Association
Cyrus Harris – Maniilaq Association
Barbara Atoruk - NANA Regional Corporation
Chloe Naylor – Kotzebue Youth Representative
Denali Whiting – Food Security Advisory Committee
Fred Smith – Northwest Arctic Borough
Some participants were unable to attend due to weather: Nelda Swan – Kivalina & Evelyn Shy – Noatak



Photo by Carolina Behe



Since July of 2012 ICC-AK has visited fifteen 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 Northwest Arctic Region Selawik, Kivalina, and Kobuk were visited. 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.

A similar regional workshop has taken place in Barrow, Nome, and Bethel. The project is scheduled to be completed in April of 2015. Though we have a lot more work to do, what we know so far is that an accumulation of stressors is causing food insecurity. There is a need to look at the Arctic through a food security lens to gain a holistic understanding of the Arctic systems and to create adaptive management plans. This understanding has brought to light the need to identify indicators (drivers), which may be used to assess both social and physical systems.

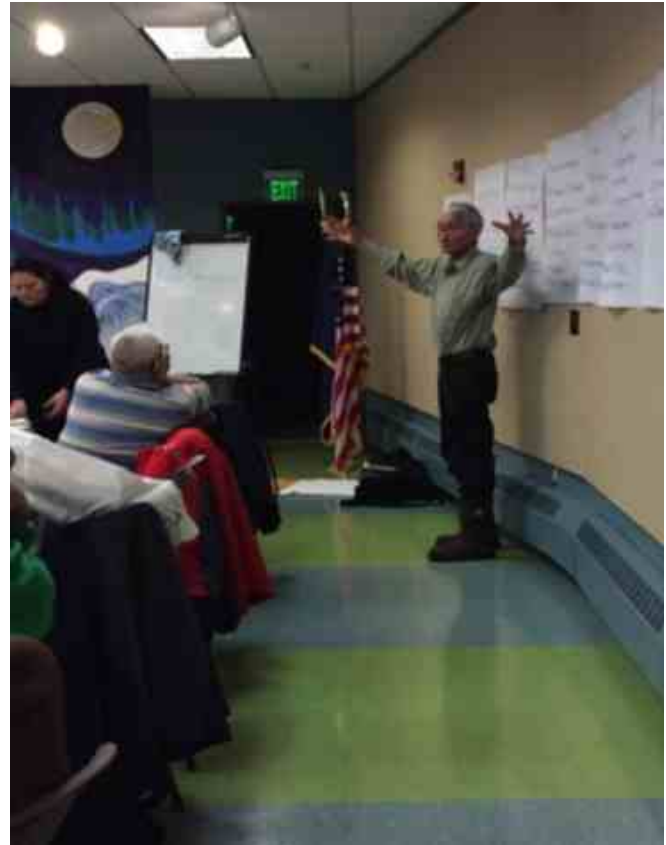


Photo by Chloe Naylor

Workshop Objectives:

Over the two day workshop participants were asked to review the information that have 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:



Photo by Carolina Behe



- 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 food security definition. Many of these **concepts** were also identified through expert interviews within the four Alaska regions.

- | | |
|--|--|
| 1. Decision making power | 11. Hope |
| 2. Holistic knowledge | 12. Responsibility and accountability |
| 3. Adaptation | 13. Preference of food |
| 4. Use of TK and western science together – synergy of knowledge systems | 14. Preservation, sharing, safety – sharing this knowledge |
| 5. Use and value of TK | 15. Knowledge of your connection to food |
| 6. Medicine | 16. Ability to live off the land, ocean, and air |
| 7. Survival | 17. Access - to healthy animals, plants, fish, etc. |
| 8. Clothing | |
| 9. Spirituality | |
| 10. Self governance | |

Phrases /words generated from expert interviews and the Northwest Arctic Regional workshop which aid in understanding the complex nature of Iñupiaq food security:

- | | |
|--|--|
| 1. Pieces of the puzzle | 3. Need for baseline studies rooted in both Traditional Knowledge and science |
| 2. Need for Balance - We have become meshed with both nalaugmiut and Iñupiaq systems. It's not going to go away, we are stuck with both, but what can we do to stay healthy, and to help our youth to find that balance between what's important to us as Iñupiaq and take the best that we can from the other system. | 4. Clearinghouse of information |
| | 5. Cultural connection of food; taste to a location |
| | 6. Monitoring connections between Inuit culture, wildlife, ice, etc. Throughout the entire ecosystem |



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

- | | |
|---|---|
| 1. Value of food | 18. Rate of change |
| 2. Health of wildlife | 19. Mixed diet |
| 3. Mental health | 20. Waste system |
| 4. Access | 21. Change in food storage |
| 5. Economics-“cash/subsistence economy” | 22. New species |
| 6. Language | 23. Self identity |
| 7. Transfer of knowledge | 24. Dance and feast |
| 8. Loss and change in sea ice | 25. Habitat: where animals eat, where animals reproduce |
| 9. Erosion | 26. Noise (associated with development and use of motorized equipment for transportation) |
| 10. Research | 27. Storm surges |
| 11. Sharing systems | 28. Respect of animals |
| 12. Variety | 29. Change of river ice |
| 13. User conflict | 30. Climate change (storm surges, changes in temperature) |
| 14. Adaptation | |
| 15. Decision making power | |
| 16. Pollution | |
| 17. Burden of conservation | |



Photo by Maija Lukin

Parti



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 of yesterday and today | 7. Clothing and medicine |
| 2. Industrial activity | 8. Future development (noise, waste water, oil spills, roads to resources) |
| 3. Tourism | 9. Racism |
| 4. Safety | 10. Statewide/international jurisdiction on issues |
| 5. Alteration in hydration system | |
| 6. Spirituality/relationship with animals | |

The following **concepts/questions** were generated from the Northwest Arctic Regional Food Security Workshop. These concepts/questions will be incorporated into our ongoing data analysis activities.

- | | |
|---|--|
| 1. Change in sea ice consequences/ benefits (animals, plants, culture) | 7. User conflict |
| 2. How to determine health of life | 8. How to create a clearinghouse of information |
| 3. How to determine variety (biodiversity) | 9. What baselines are needed (“a need for Traditional Knowledge baselines”) |
| 4. How to maintain strong cultural identity and relationship within the ecosystem | 10. Need for two sources of knowledge – how to maintain equality when using both Traditional Knowledge and science |
| 5. Industrial activity – how to ensure balance with Inupiaq values | |
| 6. Commercialization of the environment | |



Photo by Chloe Naylor



The below section describes points raised and a general overview of the discussions held throughout the workshop. This section is intended to provide a summary of some of the discussions that occurred during the workshop, as oppose to a complete review. 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, and changes in weather, etc.

On Lack of Decision Making Power –

Lack of decision-making power is closely tied to all of the identified food insecurity drivers.

Similar to the North Slope Regional Food

Security Workshop, 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 Iñupiaq culture and connectivity to the environment. Within this discussion and throughout the workshop the issue of discrimination was raised often. There is a strong sense that Iñupiaq values are not considered when making decisions that will effect the Alaska Arctic ecosystem. Examples, of not providing preference for Iñupiaq food security (often referred to as subsistence) and providing more permits for sports hunters than Iñupiaq hunters. There is a strong understanding/belief that racism keeps Iñupiaq from actively and equally having a voice at decision-making tables. An example was offered within conversation regarding the public school system and the proposal of new programs to the school board. More recently a program was presented to the regional school board and was denied. The reasoning for denial is thought to be due to a bias toward programs rooted in Iñupiaq values.

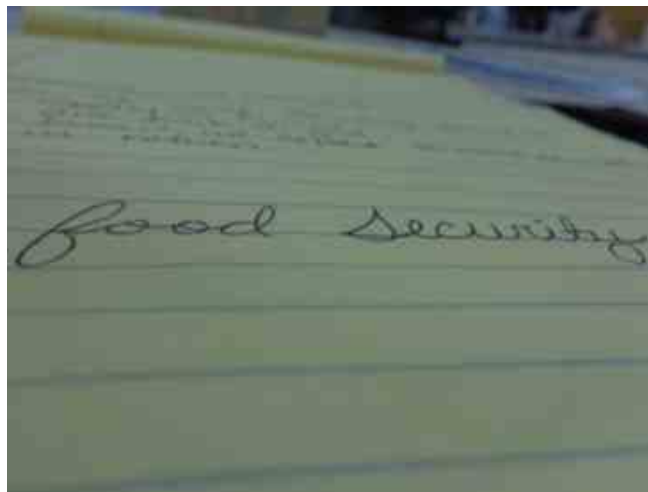


Photo by Chloe Naylor



Photo by Minnie Naylor

Cultural Identity: Iñuit culture is interlinked with the environment in which they live. Participants expressed that the maintaining of cultural and self-identity is a key driver of food security. This was also expressed through expert interviews. People have expressed that from birth Iñupiaq are taught about the environment around them; that the Iñupiaq language is used to identify and give value to all that is within the Northwest Arctic; they are taught how to respect life around them, and much more. The food that people gather, store and eat goes through a process that brings people together and builds identity. Participants often referred to food as being part of their heart, part of their entire being.



The meeting participants raised concerns of holding onto their cultural identity in order to have food security. The discussions ranged from ways in which cultural identity is being lost and shifts in Iñupiaq culture that are occurring to how the cultural identity and social integrity are being maintained.

There are many programs within the Northwest Arctic to promote cultural identity and food security. For example, the *Celebration of Life* is held annually in Buckland. During this multi day event cultural education events take place such as dog races; children are taught how to enhance their skills for skinning caribou and seal. Self and cultural identity are maintained through these types of celebrations, in addition to dance, singing, arts, camps, etc.



Photo by Chloe Naylor

Participants also discussed how food security is maintained through bringing people together. For example, during the beginning of spring; many villages come together for a community cleanup visiting with each other and pulling what is left from freezers to eat together.



Photo by Chloe Naylor

On Language: The participants agreed that the retention of language is a driver of food security. Participants noted that there is a name for all in the Iñupiaq language. While learning how to be within the environment, Iñupiat learn Iñupiatun for all parts of animals, how to respect the animal, knowledge of ice movement, etc. Often times there is no translation for these words. When you're taught a word/phrase in your language you are also taught all of the meanings of that word. When this word is translated or one is taught in a different language, the word takes on a different meaning and carries a different value. A participant offered the example of the word snow. In Iñupiaq there are many words for snow; one word to describe wet and one another to describe sticky snow; with that word, hunters, gatherers and travelers know when and when not to go out to different locations. But in English, you just say, "it's snowing."

On Sharing: As within all villages visited for this project participants expressed that sharing systems are a key element of the overall Iñupiaq food system and works to maintain food security and social integrity. As one meeting participant pointed out, the Iñupiaq sharing system is a part of survival. Food collected and prepared is shared and traded readily with neighboring villages and relatives whom have relocated to Anchorage, Fairbanks, Nome, etc. When a relative or friend expresses a longing for a taste of a type of food it is important that they are provided with that food; the food keeps people grounded within their



cultural identity and access to healthy food. Sharing systems include activities of assisting others with acquiring their own food. This may be done through sharing of fuel or equipment. The sharing and trading systems allows for a variety of food to be utilized across varying landscapes. For example, it is common for ugruk oil collected from coastal villages to be sent up river to people in Kobuk and to be traded for dried white fish.

Participants expressed concern for a decrease in sharing and trading; resulting in people losing an understanding of the great value associated with traditional foods. For example, participants discussed the sharing of one's first catch with elders and widows of their village and that today some are keeping this practice within immediate family. Under this practice it is important to give the best of what you have and not to expect anything in return.

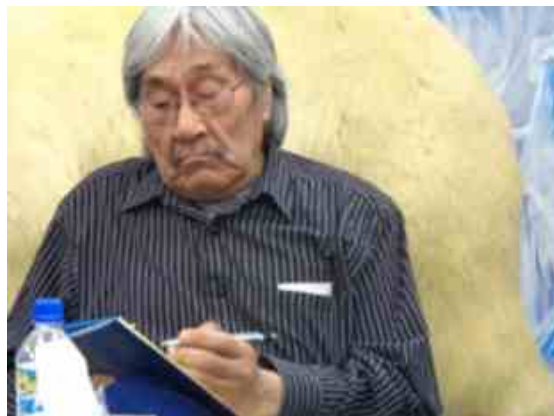


Photo by Minnie Naylor

The participants voiced disapproval of the increasing amount of traditional foods being sold as oppose to traded or given. It was shared that the selling of traditional foods is disrespectful and participants pointed out the immense amount of time and energy that people put in to obtain the niqipiaq food. Putting in this effort and level of care to obtain food and then to share that food with elders and others is a key aspect of Iñupiaq culture and food security. Participants felt that there is a need to increase positive teachings and encouragement of this type of practice.



Photo by Chloe Naylor

Education: Participants discussed the importance of passing on information to younger generations; information about how to obtain, process, store, and share food is part of maintaining food security. However, participants noted that to maintain food security, youth today need to have skills to make money while still being able to obtain traditional food sources; stressing the importance of obtaining both an Iñupiaq and westernized education. Some participants stressed that youth do not need to chose between knowledge systems but instead harness what is needed from both. Though participants recognized the need for both knowledge systems, there is concern of the lack of priority given to providing an Iñupiaq education.

Obtaining traditional foods and overall Traditional Knowledge is rooted in hands on training and an understanding of interactions of all parts of the world around you. The westernized education style was described as being based on memorization and learning from books. One participant shared that the first education comes from Aanas and Ataatas and parents. Further sharing that the most important education



she has, came from fish camp, from being with her Aana and Ataata. The participants agreed with this statement and stressed their own responsibility during this critical time to pass on their knowledge.

On Climate Change: There is an increase in the loss of access to terrestrial environments due to erosion, loss of perma-frost, rising waters, and increasing air and water temperatures. Participants discussed associated consequences, such as loss of summer camp areas and loss of integrity at grave sights. In addition, participants discussed the changes in sea ice coverage; warming summers, increase in rain, decrease in snow, high winds, increase in storm surges, and more. All of these changes have accumulative impacts that extend through all of the Arctic systems, (the Iñupiaq cultural system, animal and plant systems, water and ice systems, etc). For example, participants discussed changes in sea ice and the impact that this has on animals, villages, and hunting.

The following two examples of the interconnections and accumulative impact of changes occurring that are driven by climate



Photo by Maija Lukin

coverage and formation impacts marine mammals, such as seal. The ice forms pressure ridges that provide denning for seals. With little snow and early rains, the ice begins to break up too early and the dens open up, making young seals are left vulnerable to ravens.

The cause of decreasing ice coverage, increasing erosion, changes in prevailing winds from west to southwest, soot accumulation on snow and glaciers, rising waters, shift in sand bars, etc. are all attributed to actions occurring outside of the Arctic. Areas where pollution is being generated are home to cultures whose values are determining what is to occur within the Arctic. Meeting participants expressed



Photo by Maija Lukin

change. Participants shared that freeze up use to occur before the high winds came. The formed ice would protect communities from the winds and storm surges. When high winds come in before freeze up, villages are left unprotected. Participants also, provided an example of how change in ice



frustration in not having a secure avenue to address these threats or have an equal seat at decision-making tables. It was stated that Iñupiaq are left with little options to prevent becoming refugees in their own land.

On Processing and Storage: Knowledge of how to process and store food is a matter of survival for Iñuit. As one participant noted, how the catch is worked and how it is shared supports the well being of the community. Iñupiaq seasons are defined by actions surrounding the obtaining, processing, and storing of food. As a participant said, "...it all depends on the weather". For example, it is important to cut fish at the right time, during the right temperatures, etc.

Participants discussed how the gathering and processing of food is shifting as the weather changes and the region experiences an increase in climatic variability. Participants provided examples of the impact that increase in rain and warming temperatures are having on the processing of traditional foods. For example, increasing air temperatures are making it difficult for people to dry fish during the summer. At other times the increase in rain causes fish drying to become moldy before it can dry.



Photo by Maija Lukin



Photo by Carolina Behe

As people adapt to new processing and storing processes, the importance of knowing the traditional ways is crucial. Participants stressed that in order to adapt they must build upon what has been done before.

On Accessibility: Participants discussed what accessibility means and what impedes accessibility. The transfer of knowledge is described as tied to accessibility. The passing of knowledge and cultural values must occur in order for people to have knowledge of their environment and to access it in a respectful manner.

Additionally, participant discussed the connection between economics and accessibility. Resources and tools to physically access remote areas are needed. For examples, a boat and fuel is needed to hunt for ugruk.



Economics: Participants agreed with expert interviews, that shifts in economic systems is a driver of food in/security. It is well known that many people rely on a mixed cash and traditional food economy. However, participants expressed that there is a need to explain that the two are intertwined. As described above, cash is needed to purchase equipment for transportation, to pay high fuel costs and electric bills, etc. The participants stressed the need to have a boats, motors, snow machines, guns, bullets, etc. to be able to obtain food. This is becoming increasingly true as animal migrations shift and people have to travel further distances to obtain food. Often times, there are limited days that people may be able to spend to obtain the food.

The participants discussed in detail the need to find a balance between a cash economy and one based on obtaining traditional foods. Additionally, the



Photo by Maija Lukin



Photo by Maija Lukin

participants discussed findings from expert interviews, which question what government entities subsidize and if those subsidies are culturally appropriate. The participants discussed concern of government actions that lean toward ensuring the shipment of food; actions, which intentionally or without intention encourage Iñupiaq to obtain their food from stores, as oppose to gathering traditional foods. This conversation was based on examples provided through expert interviews regarding a growing dependency on government subsidies; an education system that does not allow for equal time to be spent teaching children how to obtain food and Iñupiaq values; the large ecological, physical, and cultural impact of government subsidies involved in shipping food to the region.



Photo by Maija Lukin

Arctic region has very little regulations on obtaining traditional foods; others voiced frustration over the regulations that are in place. This conversation tied closely to the value of food among different cultures and user conflict.

On User Conflict and Value of Food: With an ever-increasing interest in the Arctic come more people and more opinions of what the Arctic should be used for. For example eco tourists may use the environment to look at and place value based on the beauty of the Arctic; sports hunters want the opportunity to hunt for animals not located near their residence; scientists want to engage in addressing new interesting questions arising with a rapidly changing climate; extraction industries focus on economic growth. With all of the increasing interests comes various ways of valuing the environment.

Within this conversation participants voiced high frustration of the impact that sports hunters have on the species migration patterns and the lack of respect that they show to the Inupiaq culture and

Management of food and Regulations: Inupiaq have always had self-management mechanisms. This is most noted in the common statement, “we don’t take more then we need”. Within this statement is the understanding that people take only what they can process and eat, always leaving enough for continued respect of the environment around them. For example, one participant noted that you only take as much white fish as you can dry and put away. In determining how much fish can be dried, one must consider the right weather conditions needed to dry the fish. If the weather becomes to warm or there is too much rain they will not be able to properly dry the fish and there is an increase likelihood of bacteria build up on the fish.

Participants discussed the impact of regulations on food security with concentration placed on the need to utilize Traditional Knowledge and Inuit management systems within decision making. Some participants expressed that the Northwest



Photo by: Minnie Naylor



the animals. Participants also shared concern over preference for other cultures when interpreting laws and giving favor to sports hunters over Iñupiaq feeding their families. People referred to this as racism and a lack of respect for Iñupiaq knowledge and culture.

Environmental NGOs were also discussed within the topic of user conflict. Examples were provided of when some groups believe that Iñupiaq kill animals unnecessarily and would rather have the animals to look at. Participants voiced that there is a difference between hunting and killing. Iñupiaq hunt for food to feed their families. This is not done for joy or sport, but for their survival. One participant stressed that the Iñupiaq value of their food resources comes from learning how to be within your environment and interacting with the plants and animals around you.



Photo by Minnie Naylor



While none of these users are solely a problem all of them together bring more people to the table to determine regulations, etc. Participants expressed concern of the increase in food insecurity, as their ability to access and obtain food becomes a lower priority in relation to others. Ultimately, this concern comes back to not feeling like they have a voice at the decision making table.

On Traditional Knowledge: Most participants expressed a need for Traditional Knowledge to be taken more seriously and the need to use both Traditional Knowledge and science to understand the rapid changes occurring within the region. There was a particular focus on the need for government agencies to work in partnership with the Traditional Knowledge holders and to appreciate that each way of knowing holds something unique to bring to the table. Participants noted that it is appreciated when scientists come and share information about various topics, such as currents and tidelines. However, they also hold unique knowledge that needs to be considered. For example, Traditional Knowledge holders attending the meeting shared that there is a change in current strength occurring today.



Photo by Maija Lukin



Photo by Carolina Behe



Photo by Carolina Behe



Report Summary – The Northwest Arctic 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 Traditional Knowledge 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.

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 suggested ways 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.



Kivalina whaling team.

Lens episcopal news service. Web. Feb. 4 2015. <http://episcopaldigitalnetwork.com/ens/2012/07/20/convention-moves-to-address-balance-environmental-and-economic-justice/>



Appendix 1 – Project Summary

“An Inuit Perspective On Food Security In The Alaska Arctic: Building A Conceptual Framework On How To Assess Food Security.” The proposed 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, makes 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, 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 region, 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 on-going 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 and findings 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:

Grant Ballot – Selawik	Percy Ballot – Food Security Advisory Committee
Ernest Barger, Sr. – Buckland	
Pete Schaeffer - Kotzebue	John Goodwin – Food Security Advisory Committee
Buelah Ballot – Kotzebue	
Peral Goodwin – Kotzebue	Pauline Harvey – Maniilaq
Willie Goodwin – ICC elder’s representative	Cyrus Harris – Maniilaq
Leslie Sampson Sr. – Noorvik	NANA – Barbara Atoruk
Robert Iyatunguk – Deering	Fred Smith – Northwest Arctic Borough
Ben Atoruk – Kiana	Chloe Naylor – Kotzebue Youth Representative
Susie A. Sun – Kobuk	Some participants were unable to attend due to weather: Nelda Swan – Kivalina & Evelyn Shy
Ethel Wood Sr. – Kobuk	
Mildred Black – Shungnak	– Noatak

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!

Maija Lukin – Maniilaq Association	Cyrus Harris – Maniilaq Association
Noah Naylor – Northwest Arctic Borough	John Goodwin – Project Advisory Committee
Percy Ballot – Project Advisory Committee	Liz Moore – NANA Regional Corporation
Millie Stalker – NANA Regional Corporation	



Appendix 3 – Workshop Prep

The North West Arctic Regional food security workshop is an important part of the overall project methodology, allowing for greater engagement of Arctic villages and a preliminary validation process. Over the two day workshop Traditional Knowledge experts, identified by their respective Tribal Councils and peers, will come together to validate and evaluate the information that was previously documented through expert interviews, offer further insight on drivers of food security and insecurity and contribute to a deeper understanding of food security.

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) Discuss Traditional Knowledge methodologies that may be used to monitor and assess identified drivers.

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.

Workshops participants from villages within the North Slope Arctic will meet to discuss the definition of food security, the drivers of food security and insecurity, and further discuss possible methodologies found with Traditional Knowledge that may be applied to monitoring and assessing the identified drivers. Through this project, we seek to build awareness of the human dimension associated with food security, identify gaps in current research and establish a baseline by which action may be taken with a holistic adaptive response to a rapidly changing environment.

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 definitions
- 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 marine mammals. 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 fulfills 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

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
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. Regulations
11. Loss of sea ice (consequences)
12. Change in sea ice (consequences / benefits: climate regulator, marine hazard, coastal buffer, use for transportation, cultural services, support of food webs and diversity)
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.); User Conflict
16. Ones control over ones on 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. Rate of change
21. 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?
22. Determination of quality of life (what determines quality of life)
23. Impact of a mixed diet
24. Change in food storage
25. Stability of ground
26. New species
27. Change in temperatures

Questions to consider: The below questions have been generated from conversations with the project contributing Inuit authors:

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...in the store...delivered by commodities programs...regulations
4. Who decides what you eat
5. Do people in your community rely on others to provide them food?
6. What resources are required (land, water, gasoline, distribution costs, etc.) to produce food for your community
7. What impacts on the environment result from the shipment of the communities food
8. How would the community get food if a natural or other disaster stopped shipments?
9. How many jobs could be created if the community had control over commercial activities such as, fishing, sports hunting, etc.



10. Is food access identified as an essential service (like roads, schools, water, etc.)?
11. Do decision makers consider environmental impacts?
12. What are the pros and cons included by decision makers?
13. Food is central to Inuit lives and its capacity to connect all people materially and spiritually to the environment
14. Do people receive adequate food on a daily basis
15. Are there many health problems
16. How important is hunting and gathering
17. How important is trade/barter
18. How important is sharing
19. How important are food stamps
20. Are there certain foods that you need or would like to eat that are difficult to get, or are not available, in your community
21. What do you use for food storage
22. In what ways are people around you healthy...what makes them healthy...what sounds should you hear...what should you smell...how do people move from place to place
23. How many people are skilled in collecting, processing traditional foods
24. Do you have someone to teach you how to collect/process traditional foods
25. How would you rate the nutritional quality of your village
26. Would you say the health of your village is good
27. Think back over the last few months...what did you see that you would describe as an example of a healthy community...a healthy environment
28. Are young people taught food production and preparation, and connecting them to other community issues through food traditions
29. What is the Arctic food chain