# How to Assess Food Security from an Inuit Perspective: Building a Conceptual Framework on How to Assess Food Security in the Alaskan Arctic

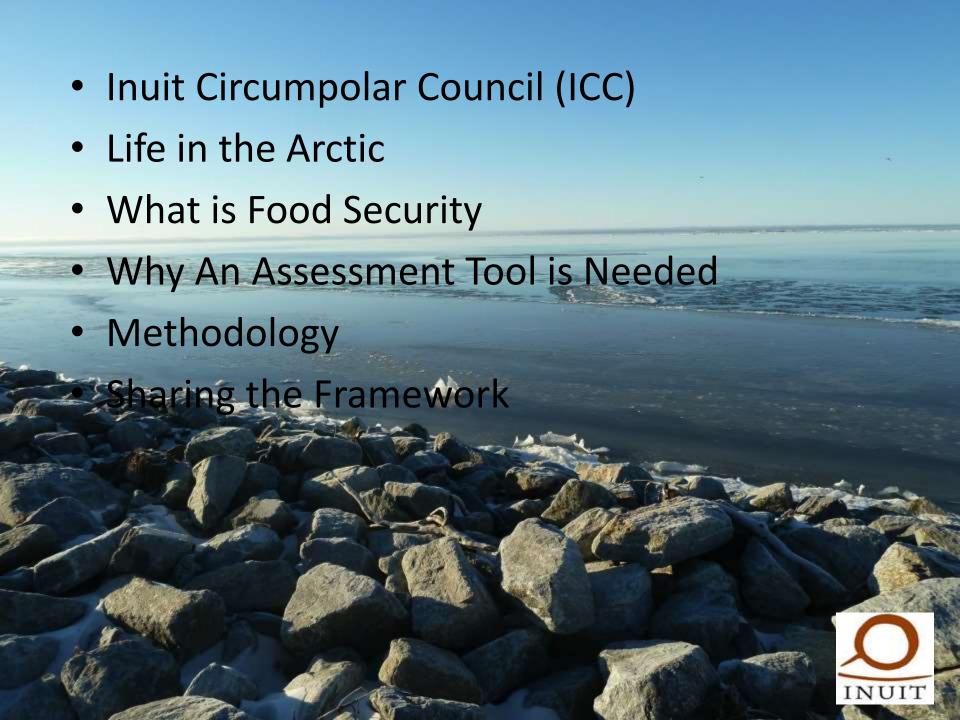
Presented by: Carolina Behe
Interagency Arctic Research Policy Committee
June 25, 2014















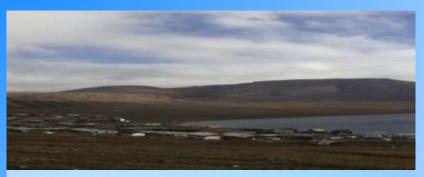
# ICC's International Engagements

- Conservation of Arctic Flora and Fauna
- Task Force on Oil Spill Response
- Inuit Health
- Commission on Human Rights
- Mercury Expert Group
- POPS Expert Group
- RAMSAR
- WIPO
- Sustainable Development
   Working Group
- UNFCC

- Protection of Arctic Marine Ecosystem
- Convention on Biological Diversity
- International Whaling Commission
- UNEP (incl. INC)
- CITIES



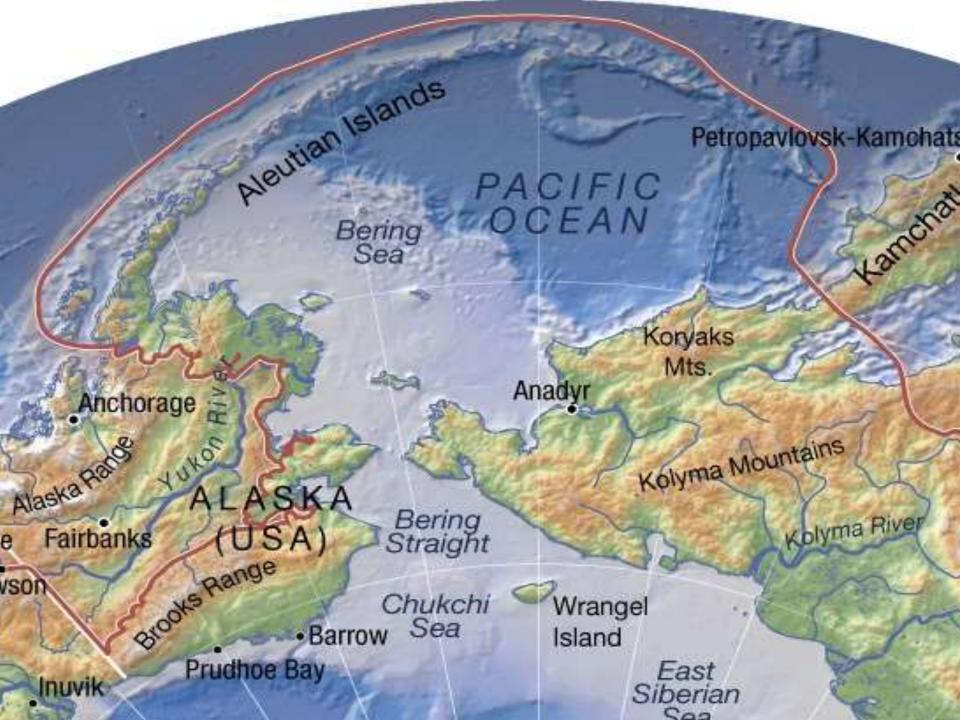
### What We Work On





- Food security
- Language
- Human and indigenous peoples' rights
- Environment
- Climate Change
- Contaminants
- Sustainability
- Biodiversity
- Culture and Language
- Resource Development
- Arctic Sovereignty
- Health



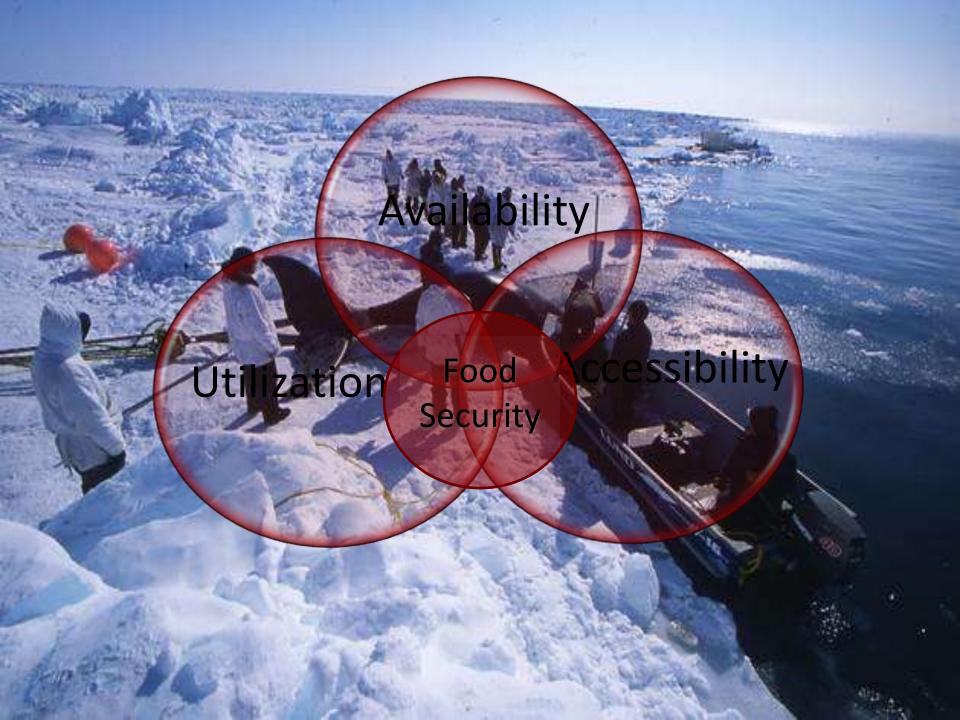




Sam Tawarak

### **COMMUNITY CONCERNS**

- TEMPERATURES & ICE COVERAGE
- INDUSTRY ACTIVITY
- SPECIES DISTRIBUTION AND ABUNDANCE
- EROSION RATES AND STORM SURGES
- SPECIES WELLNESS
- TOXICITY LEVELS
- CULTURAL RELATIONSHIP WITH THE ENVIRONMENT





# How to Evaluate Arctic Food Security

- Draw Together Multiple Sources of Knowledge
- Incorporate The Human Dimension
- Increase Understanding of the Arctic







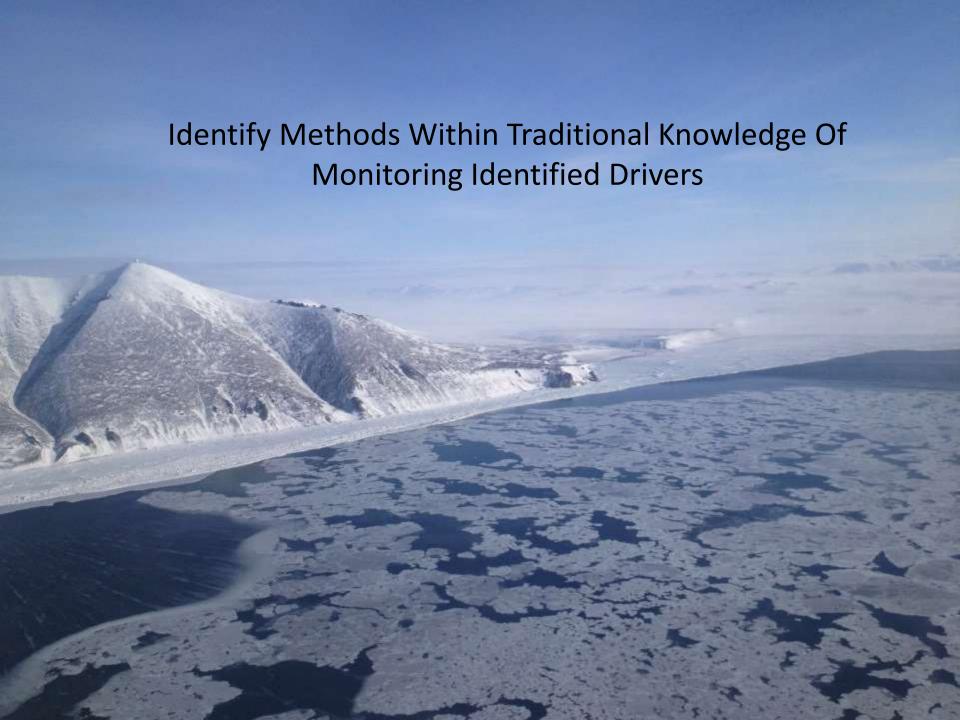


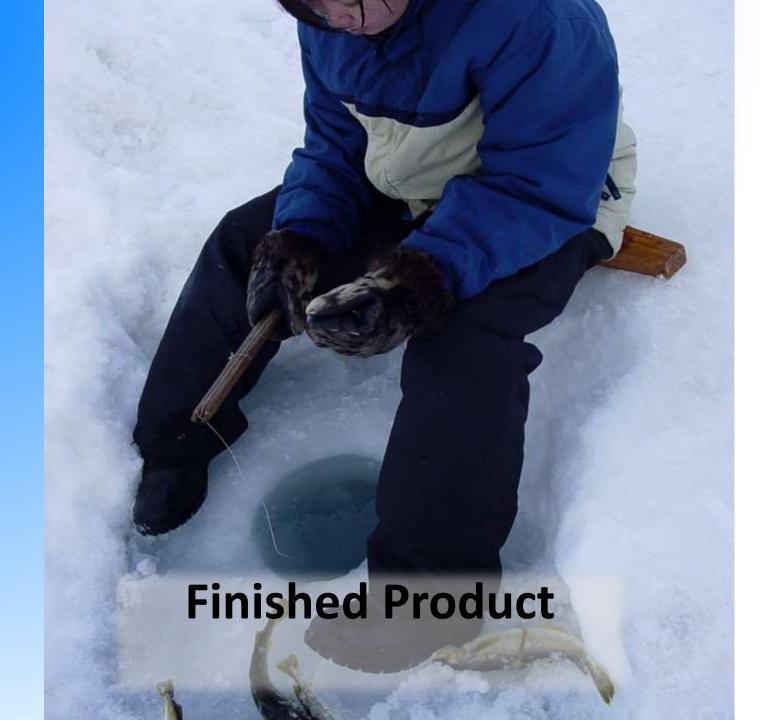
# Food Security = Environmental Health



- Health of wildlife (determined by multiple factors – all considered indicators of overall health, i.e. live texture and color)
- Mental health
- Access
- Economics-"cash/subsistence economy"
- Language
- Transfer of knowledge
- Loss of sea ice
- Change in sea ice
- Erosion
- Sharing systems
- Variety
- User conflict
- Adaptation
- Research methods
- Change in food web dynamics
- Processing and storing of food
- Change in temperatures
- Change in precipitation
- Tourism
- Development

- Decision making power
- Pollution
- Burden of conservation
- Rate of change
- Mixed diet
- Waste / water system
- Change in food storage
- New species
- Cultural/Self identity
- Dance / Feast
- Habitat: where animals eat; reproduce; find refuge; and reproduce
- Noise
- Storm surges
- Respect of animals
- Change in river ice
- Climate change (i.e. storm surges, changes in temperature)
- Change in sharing/giving
- Respect





# WHAT FOOD SECURITY IS ... WHAT IMPACTS FOOD SECURITY

**NUTRITION \* HEALTH \* CLOTHING** 

**CULTURE \* EDUCATION \* SPIRTUALITY** 

LANGUAGE \* HUNTING/FISHING \* TOURISM

SEASONAL CHANGE/CYCLE \* PERMA FROST

FOOD STORAGE \* PLANTS \* WATER \* ACCESSIBLITY

**ECONOMICS \* CHANGE IN HUNTING STRATEGIES \* FUEL** 

ENVRONMENTAL CONNECTION \* SHIPPING \*WASTE DISPOSAL

COMMUNITY SHARRING \* WEATHER FORCASTING \* CHANGE IN ANIMALS

CHANGE IN PLANTS \* HEALTH OF PLANTS AND ANIMALS

AND MUCH MORE ...





## References

- Anisimov, O.A., D.G. Vaughan, T.V. Callaghan, C. Furgal, H. Marchant, T.D. Prowse, H.

  Vilhjálmsson and J.E. Walsh, 2007: Polar regions (Arctic and Antarctic). Climate Change 2007: Impacts,
- Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson, Eds., Cambridge University Press, Cambridge, 653-685.
- 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.
- Burek, K.A, Gulland, Frances, O'Hara, Todd M. 2008. Effects of climate change on Arctic marine mammal health. Ecological applications: a publication of the Ecological Society of America Vol. 18 (2). Pp. 126-34
- Ford, James D. & Smit, Barry. 2004. A Framework for Assessing the Vulnerability of

  Communities in the Canadian Arctic to Risks Associated with Climate Change. Arctic. Vol. 57 (4). Pp. 389-400.
- Gautier, D. L., Bird, Kenneth J., Charpentier, Ronald R., Grantz, Arthur, Housekneht, David
  W.,Klett, Timothy R., Moore, Thomas E., Pitman, Janet K., Schenk, Christopher J., Schuenemeyer, John
- H., Sorensen, Kai, Teenyson, Marilyn E., Valin, Zenon C., Wandrey, Craig J. 2009. Assessment of Undiscovered Oil and Gas in the Arctic. Science Vol. 324. Pp. 1175-1179 (2009).
- Loring, Philip A. & Gerlach, S.C. 2008. Food, culture, and human in Alaska: an integrative health approach to food security. Environmental Science & Policy. Vol. 12 (4). Pg. 466-478
- Marshall, M N. 1996. Sampling for qualitative research. Family practice. Vol. 13 (6). Pp. 522-526.
- Nuuk Decleration. 2011. <a href="http://www.itk.ca/sites/default/files/Nuuk-Declaration.pdf">http://www.itk.ca/sites/default/files/Nuuk-Declaration.pdf</a>.

  Accessed: 12/10/12.
- Staatz, John M., D'Agostino, Victoire C., Sundber, Shelly. 1990. Measuring Food Security in Africa: Conceptual, Empirical, and Policy Issues. American Journal of Agricultural Economics Vol. 72 (5). Pp. 1311-1317

Yegorov, Ivan. 2011. Finding a key to the Arctic: Russia strives to become a leader in the exploration of the Arctic. No. Russian Press Digest. 808p.

http://www.grida.no/graphicslib/detail/arctic-conservation-area-caff-topographic-map-aba-version-2010\_6cb5#

**Photo Credits** 

Slide 2. Carolina Behe

Slide 3. Counter Clockwise:

Beverly Eliason; 2)Carolina Behe; 3)ICC Canada.
 <a href="http://inuitcircumpolar.com/section.php?Nav=Section&ID=1&Lang=En">http://inuitcircumpolar.com/section.php?Nav=Section&ID=1&Lang=En</a>; 4)
 thedude.com

Slide 4-5. ICC-CA

Slide 7. Clockwise:

1) Sam Tawarak; 2) Ronald Brower; 3) Sam Tawarak; 4) Sam Tawarak

Slide 8. Mary Sage

Slide 9. Mary Sage

Slide 10. Jackie Cleveland; Carolina Behe; Mary Sage; Ronald Brower

Slide 11-13. Jackie Cleveland

Slide 15. Clockwise

1) Carolina Behe; 2) Meghan Topkok; 3) Gay Shefield; 4) Chloe Naylor; 5) Sara Shoenfelder

Slide 16. Carolina Behe; (DCRACPLR 2001)

Slide 17-18. Mary Sage

Slide 19. Carolina Behe

Slide 20. Kelly Eningowuk

Slide 22. Noah Naylor

