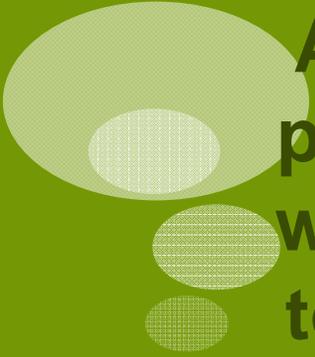


**The Value of Scenarios for  
Northern Alaska: Facilitating  
Local Expert Dialog through  
two projects: NASP and NSSI**

**A.L. Lovcraft**

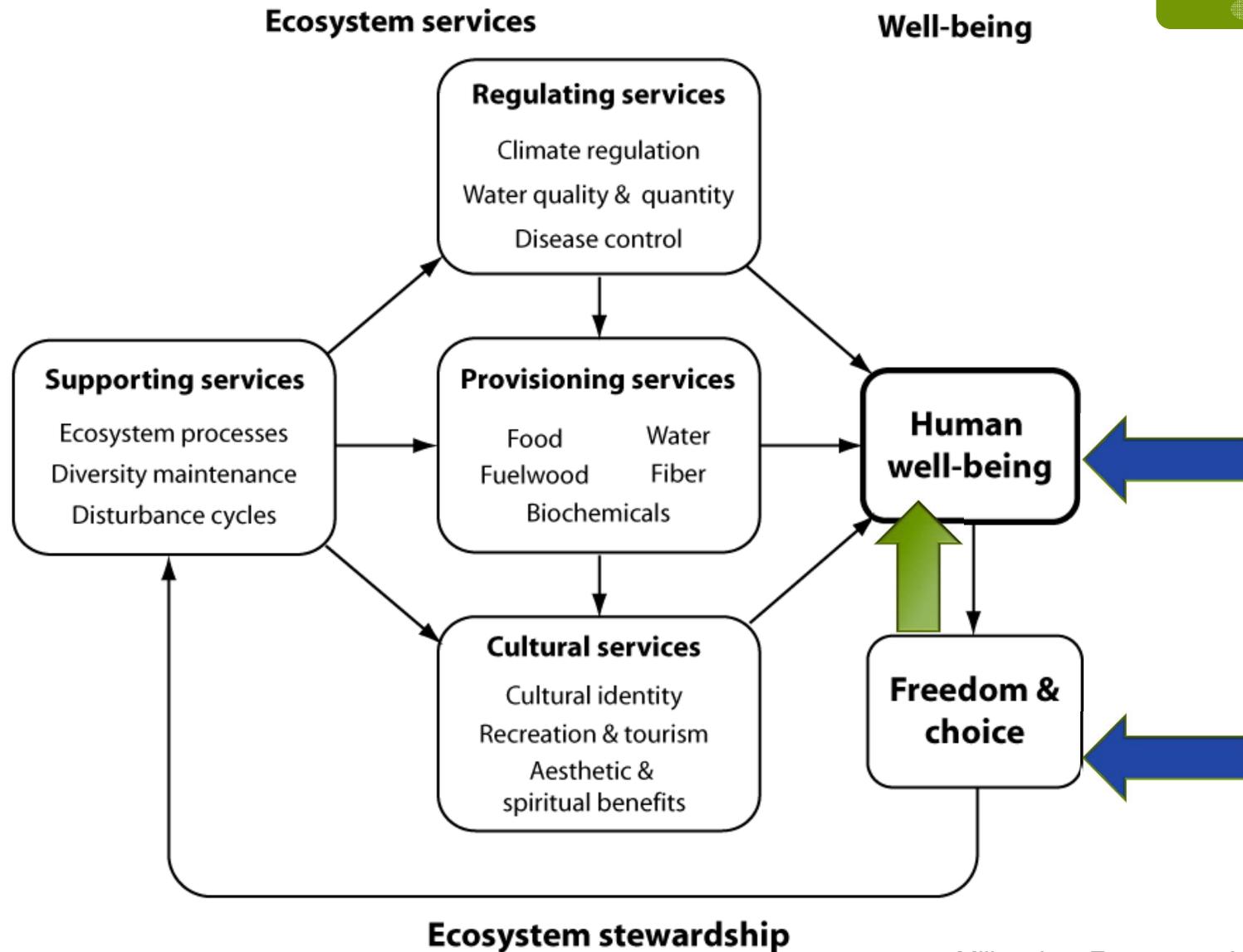
***University of Alaska Fairbanks***

**Arctic Scenarios Workshop - IIASA 20 May 2014**



**How can the Northern  
Alaska region identify and  
prioritize key variables that  
will enable its communities  
to monitor their health and  
sustainability in coming  
decades?**

# Human Well-Being = Freedom and Choice?

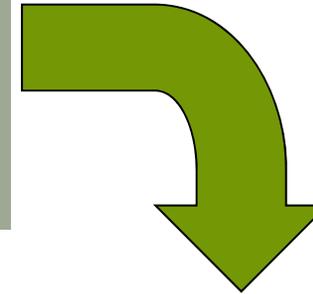
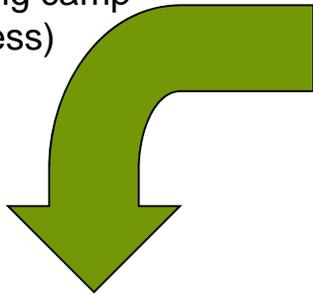
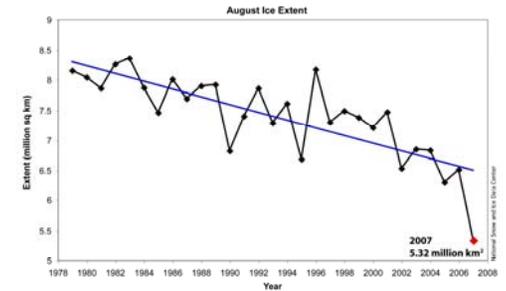




Barrow Whaling camp  
(Photo: Bill Hess)

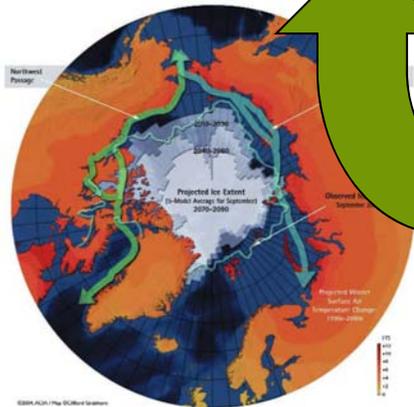
# Rapid & Complex

Regime shifts in climate and the environment that are about to exceed range of past variability and change

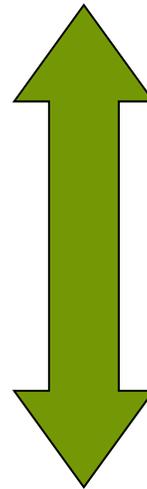


Sweeping impacts of change on Northern communities and cultures

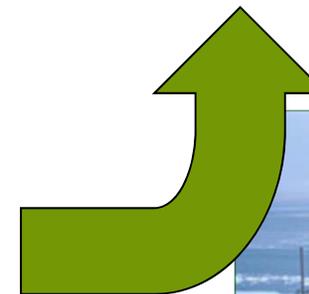
CIA



Increasing inter-dependence between the Arctic region and global processes



Expansion of global geopolitical and economic interests into the North

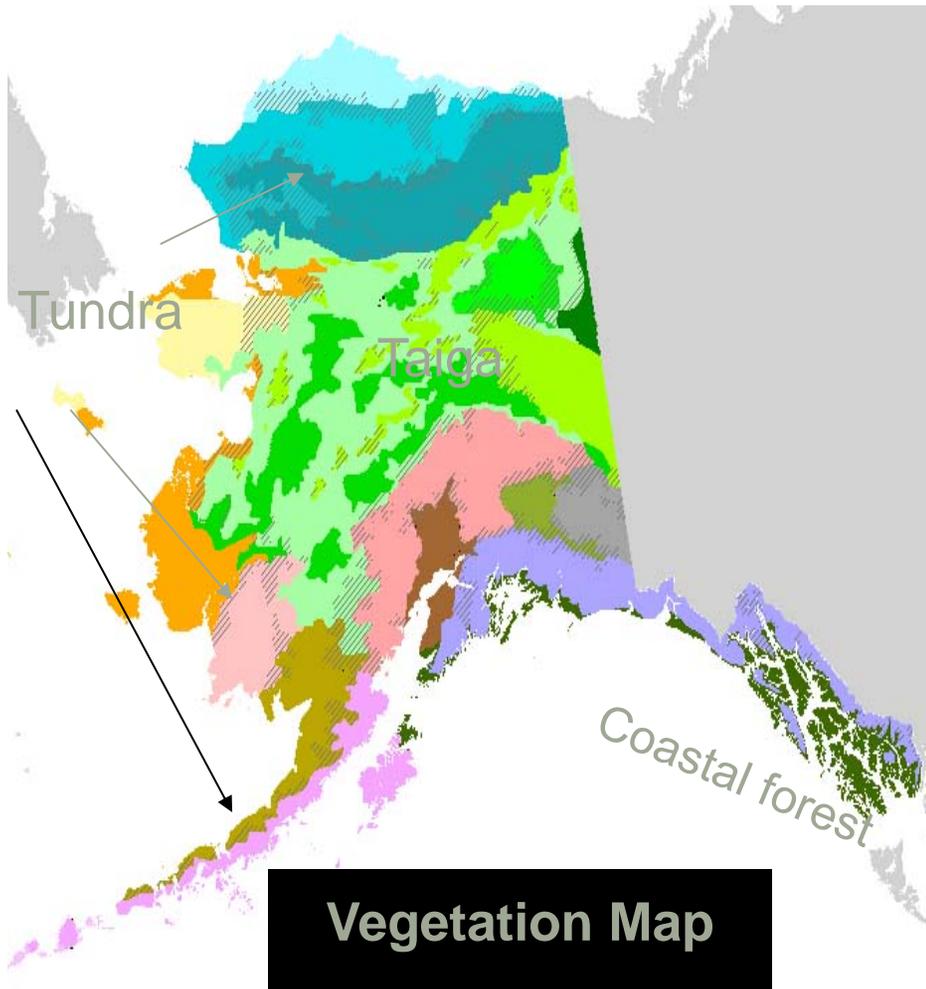


Northstar  
Photo: BP



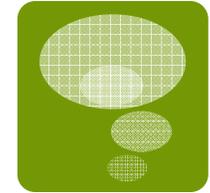
# Close connection between place and people

(Mimi Chapin)



Mimi Chapin

# What principles are best suited to address rapid change in complex social-environmental systems?



## ■ Principles of resilience (ecology lit.)

- Maintaining core functions and values in spite of perturbations (negative and unanticipated challenges).
- In order to be resilient there must be adaptation across the different key actors and processes that are important to the system.
- A social-environmental system that has anticipatory learning in order to prepare for adaptation processes is likely to flourish over the long-term and thus be sustainable.

## ■ Principles of deliberative democracy (social lit.)

- Governance in complex systems confronts “wicked problems.”
- Because answers are not simple a diverse array of participants who deliberate with one another without power inequalities can increase the total articulation of preferences.
- This not only adds information but also legitimacy to the set of adaptive solutions.



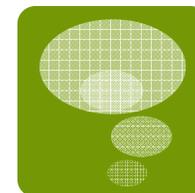
**But these lines of thinking have not yet been consciously added together in an *effective process*.**

# What are scenarios?

- Scenario history stems from the world of business, Shell was a a major developer of the method.
- A scenario exercise is not planning or decision-making. It is a process of asking “what if?” that enables risk management for the future.
- Scenarios workshops are deliberative and draw on expertise of participants regardless of formal training or employment. The goal is to think in new ways about possible futures from many different standpoints.



# Scenarios Processes at the Local or Meso Scale



- Scenario exercises produce neither forecasts of what is to come nor are they visions of what participants would like to happen.
- Rather, they can produce pertinent and accurate information related to questions of “what would happen if...”
- By considering seriously where you want to be in 2040, the possibility of strategic decision-making is in the hands of local experts rather than external forces.
- The scenarios process can reduce risk and track success towards healthy sustainable communities with new networks of communication, prioritized monitoring of social indicators, and self-defined goals in the Northwest Arctic and North Slope Boroughs and their municipalities.

# Why Do Scenarios Matter to Northern Alaska?



- The business world using scenarios to enhance competitiveness of a company in highly uncertain conditions. “Raplex” conditions.
- The Arctic regions of Alaska are experiencing rapid social and environmental changes that outpace any other U.S. locations due to climate change and
- Northern Alaska is a complex system where people, societies, and environments are tightly bound together. The conditions in the region are dynamic, not entirely understood and the key pieces of people’s livelihoods (e.g., jobs, subsistence, schooling) are highly interdependent.

# Why scenarios for the the Northwest Arctic and North Slope Boroughs now?

- Different stakeholders in the two boroughs have taken significant strides to address concerns of physical health, well-being, youth engagement, cultural pathways, and education. Across both, in different ways healthy communities and self-reliance have been set as goals.
  - As state, national, and international pressures on decision-makers in the Arctic increase, we offer a process that can help the region, *itself* (1) identify what key variables are important to track success in creating healthy sustainable communities (2) prioritize those variables for monitoring over time (3) create new communities of practice among knowledge holders who do not normally strategize together for more effective planning.
- Scenarios enable communities to manage risk (1) by anticipating changes, (2) bringing people together so no one group is “doing it alone, (3) figuring out where organizations are succeeding or where changes are needed.



# Northern Alaska Scenarios Project

- Funded by the National Science Foundation.
- Through UAF and the Institute of the North we provide background materials (data) on all the major social trends in the region. We will proof this with the participants in the months preceding the workshops.



We bring approximately 50 people together for a 3 day scenario workshop (Barrow), with two follow up workshops (Kotzebue and TBD). Participants will come from local organizations, governments, community associations, and schools. They will be subject matter experts from different sectors. For example, healthcare providers, school administrators, local business, elected officials, city employees, law enforcement and justice. We are also specifically including young people of ages 16-25.

- **Focal Question: “What is required for healthy sustainable communities across the region by 2040?”**

# Quality Scenarios

Marc Mueller-Stoffels

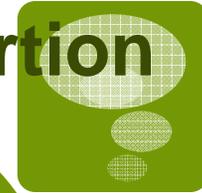
- ⚙️ **Consistent:** no strong contradictions within a single scenario
- ⚙️ **Plausible:** developments within scenario need to be substantiated
- ⚙️ **Robust:** a scenario that is reasonably consistent and plausible
- ⚙️ **There are numerous scenario methods**
  - ⚙️ Narrative vs. Explorative
- ⚙️ **Explorative approach – Key Factors and Future Projections**
  - ⚙️ Works with expert input & Removes expert bias (to some extent)
  - ⚙️ Extensive background research
  - ⚙️ Consistency matrices

# Scenarios for Energy and Resource Development on the North Slope and Adjacent Seas

- Project initiative by North Slope Science Initiative (NSSI)
  - Builds on recommendations by the NSSI Science Technical Advisory Panel and focal question defined by NSSI Oversight Group
    - Funded by broad partnership and administered through Bureau of Land Management to develop energy and resource development scenarios.
- The scenarios will contribute to the understanding of the potential future state of the socio-ecological systems of the North
- Allows NSSI member agencies and their partners to refine research and monitoring investments
  - **Focal Question: What is the future of energy development, resource extraction, and associated support activities on the North Slope and adjacent seas through 2040?**

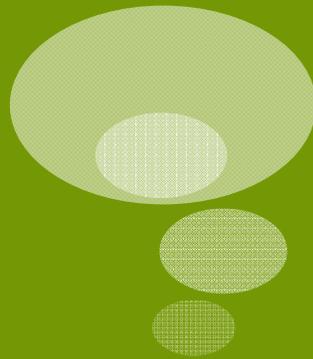


# Scale Matters : Uncertainty Relies on Standpoint : Diversity of Scale Reduces Reality Distortion



Willie Goodwin, Inupiaq (April 2014) “Our people have adapted to change for a thousand years, anything that happened, we got up and another day, we adapted....things are happening that we can’t control so we adapt to it. Because we live a holistic lifestyle the native people in this region...learning everything around me...watch everything...our view of things is based on traditional knowledge and what we learned by trial and error...Climate change, am I worried about it, no, it is going to happen.”

“Listening carefully to what marginalized people say – with fairness, honesty, and detachment – and trying to understand their life worlds are crucial first steps in gaining less partial and distorted accounts of the entire social order” ...to provide “a causal, critical account of regularities of the natural and social worlds and their underlying causal tendencies. Thus standpoint theory demands acknowledgment of the sociological relativism that is the fate of all human enterprises including knowledge claims, but rejects epistemological relativism” (Harding 1992, 583).



**THANK YOU!**  
*Questions?*

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a National Science Foundation  
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