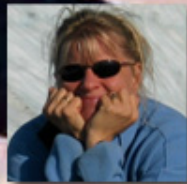


ArcSEES

Arctic Science, Engineering, and Education for Sustainability



Anna Kerttula de Echave

Arctic Social Science Program, NSF



Erica Key

Arctic Observing Network Program, NSF



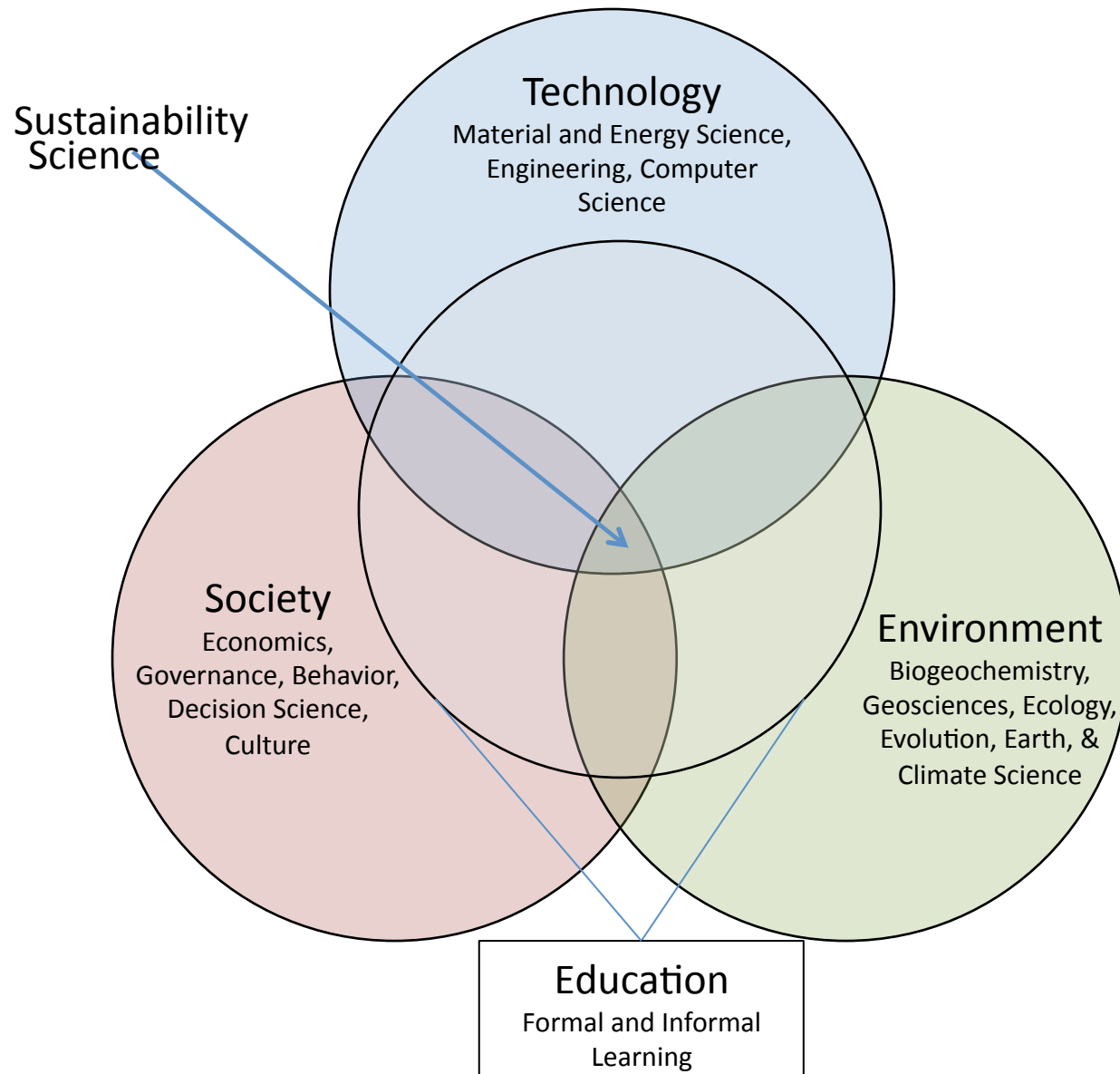
Nikoosh Carlo

AAAS Fellow and Sustainability Science Liaison

June 20, 2012

**Institute for Tribal Environmental Professionals
Webinar Series**

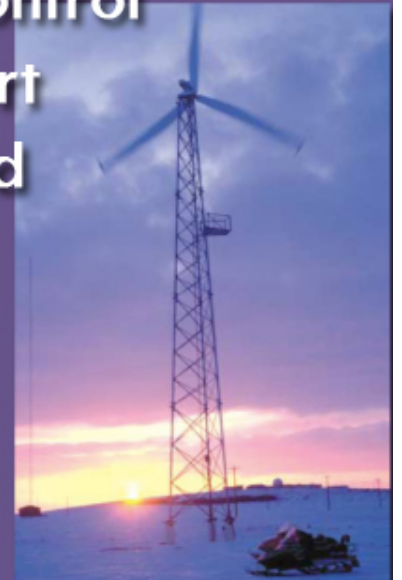
Science, Engineering and Education for Sustainability



Sustainability in practice: Identifying stakeholder needs and priorities

Examples from the Alaska Federation of Natives:

- **protect and ensure sustainability of Native culture and lifeways**
- **meet the energy and infrastructure needs of Alaska Native villages**
- **provide solutions for erosion and flood control**
- **explore sustainable pathways that support continued subsistence hunting, fishing, and gathering**





ArcSEES

Arctic Science, Engineering, and Education for Sustainability

A call for proposals was announced on April 18, 2012 that:

- recognizes the multitude and rapidity of changes in the Arctic and their interrelatedness
- reinforces the need to continue developing and refining sustainability theory
- encourages the co-development of sustainability approaches and methodologies with interested partners and communities
- provides educational and grant opportunities for tribal colleges and indigenous organizations
- partners with agencies and international funding groups to translate results into real-world solutions that may have global applicability

ArcSEES

Arctic Science, Education, and Engineering for Sustainability



ArcSEES brings together basic research and management agencies to support projects that advance understanding of the fundamentals of sustainability while also addressing use-inspired themes relevant to the Arctic.



ArcSEES

Arctic Science, Engineering, and Education for Sustainability

For FY13, up to \$12 million USD is available for meritorious research projects.

A maximum award size totaling \$2 million USD over a period of 3 to 5 years has been imposed.

The deadline for proposals is September 14, 2012.

All proposals must be submitted in English via NSF's Fastlane system or grants.gov .

If you are a new proposer and need help using the Fastlane system, please contact the Fastlane Help Desk.



ArcSEES

Arctic Science, Engineering, and Education for Sustainability

Eligible submissions for this ArcSEES competition may come from:

- U.S. Universities and Colleges
- U.S. Non-profit, non-academic organizations
- U.S. For-profit organizations
- Foreign organizations*
- NSF-sponsored FFRDCs
- Partnering agency scientists

* CNRS is a partner for FY13. French scientists may submit proposals to this competition for consideration for funding from a consortium of French agencies. Other international scientists are also welcome to collaborate with proposing teams, but no salary or expenditures may be requested.

ArcSHEES



the natural and living environment
focusing on in-depth understanding of the nonlinear biophysical platform and human-environmental interchanges within the Arctic and between the Arctic and the rest of the globe



the built environment
including but not limited to housing and transportation structures, energy and communications technologies, climate-resilient materials, and sustainable observing designs



natural resource development
comprising both the potential positive regional-to-global impacts of Arctic resource development as well as the hazards



governance
addressing the interactions between political, economic, scientific, and cultural organizations that govern Arctic futures, from tribal to multi-national scale

Image credits (top to bottom): Craig Ely, USGS; Tony Weyiouanna, Kaverak Transportation; JSC Gazprom, <http://gazprom.com>; Winfried Dallmann, Norwegian Polar Institute

Examples of Native-Serving NGO's

Creating Partnerships in Collaboration with Scientists



**Strategic Needs on Water
in the Yukon (SNOWY)**

**Yukon River Basin
Indigenous Observation
Network**



Bering Sea Sub-Network

Indigenous Communities of the Bering Sea Respond to the Need for
Adaptation to Environmental and Socio-Economic Changes

Holistic Knowledge - Better Understanding - Relevant Policies

Partnerships between non-profits and the community



Images: Alutiiq Museum

Creating projects in collaboration with communities:

scientists working for Alaska Native Non-Profits

KAWERAK, INC.



Sealaska Heritage Institute

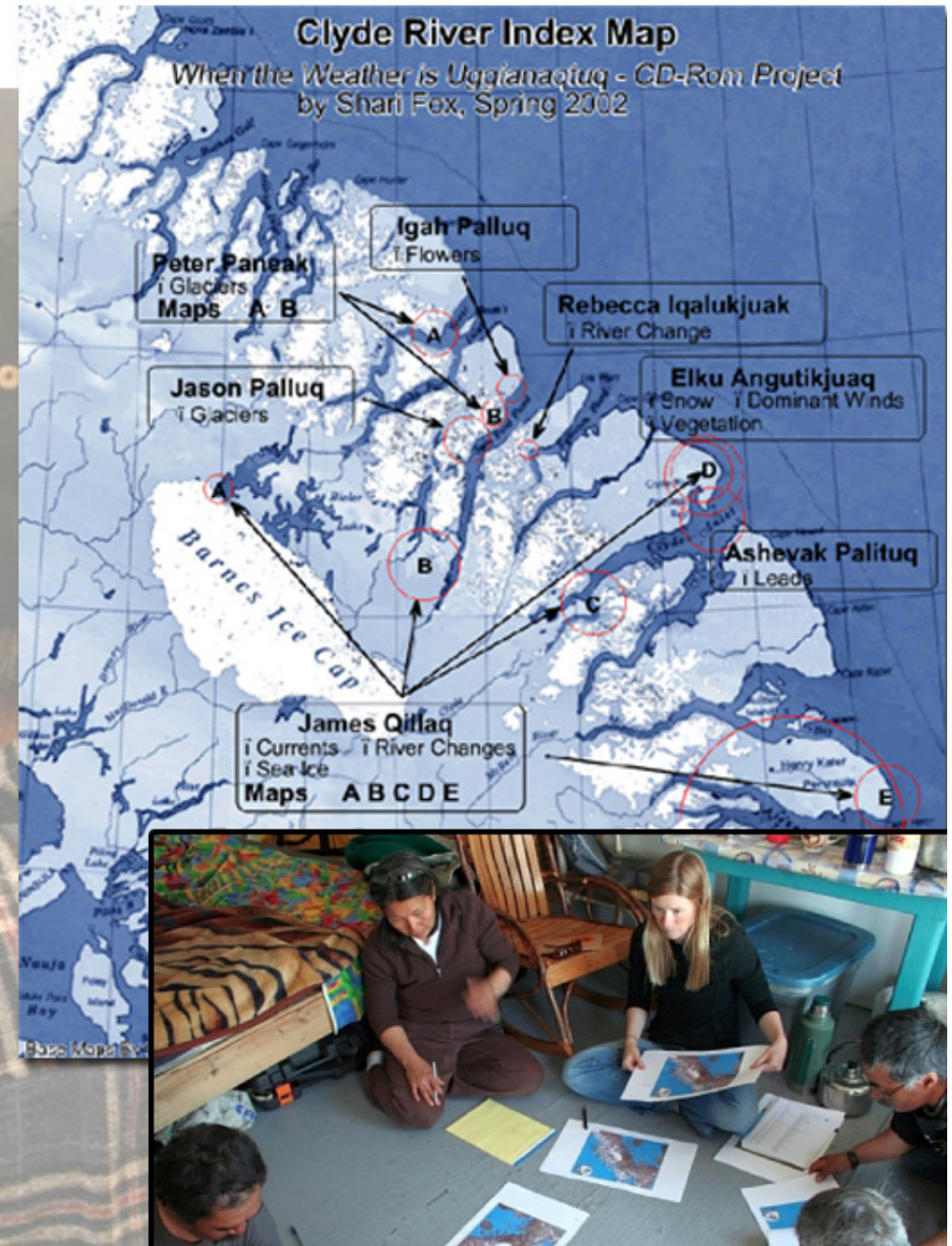


Image: Tanana Chiefs Conference

Partnerships between non-native scientists and communities, *facilitating citizen science*



Images: Shari Gearheard



Partnering with tribal colleges and native education organizations to reach Alaska Native students



Image: Ilisagvik College

There are many organizations within Alaska who have research capacity or history of funding that may be open for partnering on an ArcSEES grant.



Doyon, Limited



Tanana Chiefs Conference



Fairbanks Native Association



Interior Regional Housing Association

Denakkanaaga, Inc.



Alaska Federation
of Natives



Alaska Native Harbor Seal Commission



Aleut International Association

Permanent Participant of the Arctic Council



*progress for the next ten
progress for the next ten thousand years*

Image: YRITWC

The background image shows a rustic wooden cabin with a blue lounge chair on a deck. The cabin is made of dark, weathered wood. A blue lounge chair is positioned on a wooden deck in the foreground. In the background, there are mountains and a lake under a clear blue sky.

American Indian Tribes and Hawaiian-serving institutions

- partner with organization involved in TCUPS program
- opportunities for student exchanges with Alaskan institutes
- REU grants to encourage undergraduate research

Image: YRITWC

For more information,

please contact:

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Nikoosh Carlo ncarlo@nsf.gov

The ArcSEES solicitation is online at:
www.nsf.gov/pubs/2012/nsf12553/nsf12553.htm

Image: ELOKA