American Public Health Association - Webinar
Climate Justice Changes Health: Local, Tribal, Global & Generational

February 27, 2017

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Alaska Native Science Commission

Bringing together research & science

in partnership with the Native community
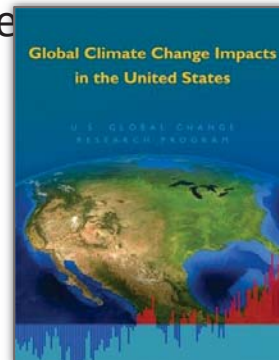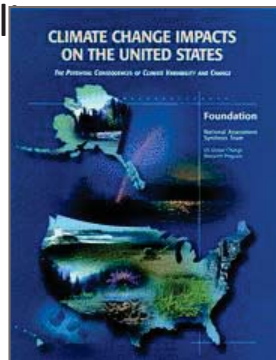
www.nativescience.org

www.nativeknowledge.org

US Global Change Research Program

GCRA Mandate:

"To provide for development and coordination of a comprehensive and integrated United States **Research Program which will assist the Nation and the world to understand, assess, predict, and respond** to human-induced and natural processes of global change."

Prod... ...Cl... ...he... ...ry 4 years

National Climate Assessment
Key Messages
Indigenous Peoples, Lands & Resources

Climate change poses particular threats to Indigenous Peoples' health, well-being, and ways of life.

- Threatened access to traditional foods
- Significant decrease in water quality & quantity
- Declining sea ice
- Human health & livelihood hazards
- Infrastructure damage
- Thawing permafrost
- Relocation

Background about tribes

- **566** federally recognized tribes; other indigenous groups
- **5.2 million** American Indians and Alaska Natives
- **56 million acres** in lower 48; in AK, **44 million acres** held by Alaska Native Corporations
- Reservations – most are small, often **remote or isolated**
- **Adverse socioeconomic conditions** – extreme poverty, substandard housing, health/community services, food, infrastructure, transportation, education, employment, plus high cost of fuels
- Close relationships with land and environment - **stewards**

Traditional Knowledge – Our Way of Life

- Language, ceremonies, cultures, practices and food sources evolved in places. Wisdom and knowledge of native people reside in songs, dances, art, language, music

- People, plants and animals are relatives, not resources

- Method of recording historic weather and climate variability and impacts

- TK can inform indigenous and non-indigenous understanding of climate impacts and adaptation strategies, but there must be clear protection of TK

- TK is threatened by loss of elders (knowledge keepers), language, culture and cultural identities, ceremonies, sense of place, all our relations

SURFACE CULTURE

FOLK CULTURE

Dr. Oscar Kawagley

fine arts •

storytelling • drumming

• subsistence • dancing •

games • cooking • dress

• weather forecasting • animal behavior •

navigation skills • observation skills • pattern recognition •

seasonal changes/cycles • edible plants / medical knowledge •

star knowledge / constellations • language / terminology/concepts •

counting / measurement / estimation • clothing design/insulation • tools/

technology • building design/materials • transportation • genealogy •

waste disposal • fire/heating/cooking • hunting / fishing / trapping • weapons •

AND MUCH, MUCH MORE . . .

DEEP CULTURE

Native Ways of Knowing Contribute to Understanding the Ecosystem

Qualitative understanding of:

1) How cultures are sustained in extreme climates
2) How/when/where to access subsistence foods
3) Daily and seasonal weather patterns
4) Sustainable food harvesting techniques and strategies
5) Wildlife biology and behavior patterns
6) How to adapt to climatic changes
7) Complex natural interrelationships
8) Abnormal natural phenomena in the context of long time periods
9) Qualitative historical knowledge and information of the natural world

Impacts of Climate Change

Health

Sea Ice

Erosion

Permafrost

Relocation

- CC impacts forcing relocation of entire tribal communities in AK, Louisiana, Pacific islands, other coastal locations
- Coastal AK Native Villages
- Decreased sea ice, thawing permafrost, increased storm intensity → erosion. Loss of basic necessities and infrastructure
  - Relocation impeded by existing federal and state statutes and regulations, absence of authority and governance structure to facilitate relocation

Newtok, AK. Source: AK Dept. of Environmental Conservation

Kivalina, AK. Source: State of Alaska

Shishmaref, AK. Source: Shishmaref Erosion and Relocation Commision

Photos: Frank Myoumick-Kawerak

2003 US government report found 3 communities seeking to relocate in Alaska and 184 other communities are being affected by flooding and erosion.

2009 US government report found 12 seeking to relocate. Now more than 30.

Alaska Native Science Commission & University of Alaska Fairbanks
Community Partnership for Self Reliance & Sustainability

Rights, Resilience and Community-Based Adaptation

- Alaska Institute for Justice, ANSC, NOAA Project
- Design a Relocation Governance Framework that Protects Human Rights

- Sharing expertise among communities
- Strengthening partnerships between Tribes, State and Federal government
- Designing social-ecological monitoring tools: Sea ice conditions -Permafrost melting -Shoreline erosion -Flooding & storm surge heights -Health & well-being
- Integrating traditional knowledge and western science
- Learning about resources that help respond to flooding, erosion, and permafrost melting

http://www.teachersdomain.org/special/ean/

ANTHC Center for Climate & Health - www.leonetwork.org

Guidelines for Considering Traditional Knowledges in Climate Change Initiatives
Climate and Traditional Knowledges Workgroup
http://climatetkw.wordpress.com

- **Guideline 1.** Understand key concepts and definitions related to TKs.

- **Guideline 2.** Recognize that indigenous peoples and holders of TKs have a right NOT to participate in federal interactions around TKs.

- **Guideline 3.** Understand and communicate risks for indigenous peoples and holders of TKs.

- **Guideline 4.** Establish an institutional interface between indigenous peoples, TK holders, and government for clear, transparent and culturally appropriate terms-of-reference, particularly through the development of formal research agreements.

- **Guideline 5.** Provide training for federal agency staff working with indigenous peoples on initiatives involving TKs.

- **Guideline 6.** Provide specific directions to all agency staff, researchers and non-indigenous entities to ensure that protections for TKs requested by tribes and knowledge holders are upheld.

- **Guideline 7.** Recognize the role of multiple knowledge systems.

- **Guideline 8.** Develop guidelines for review of grant proposals that recognize the value of TKs, while ensuring protections for TKs, indigenous peoples, and holders of TKs.

IPCCSD – Indigenous Peoples' Global Network on Climate Change and Sustainable Development

- Indigenous Peoples' Global Summit on Climate Change

- Anchorage Declaration 2009

- http://www.un.org/ga/president/63/letters/globalsummitoncc.pdf

- Secretariat – Philippines

HOPE FOR OUR FUTURE GENERATIONS