



State of Alaska
Governor's Climate Change Sub-Cabinet

**Adaptation Advisory Group Meeting
Meeting #5**

**Economic Activities Technical Working Group
EA TWG**

Alaska Forum on the Environment
February 2 - 6, 2009
Nancy Tosta, Ross & Associates



Economic Activities TWG

- The EA TWG is developing recommendations for actions to address the effects of climate change on a wide range of Alaska's economic activities, including:
 - Oil and gas
 - Mining
 - Tourism and recreation
 - Ocean transportation
 - Rural and non-road transportation
 - Energy supply and demand
 - Boundaries and ownership
 - Sustainable jobs and economic development
 - Information collection and dissemination

Overview of Options

- **EA-1:** Evaluate Potential Needs for Expanded Arctic Ocean Oversight and Regulatory Activities
- **EA-2:** Explore Economic Activity Opportunities Offered by Climate Change
- **EA-3:** Develop Scenarios for the Alaskan Economy
- **EA-4:** Establish a Center for Knowledge Sharing on Arctic Issues
- **EA-5:** Improve Availability of Mapping, Surveying, Charting and Imagery Data

OVERVIEW

Option 1. Evaluate Potential Needs for Expanded Arctic Ocean Oversight and Regulatory Activities

- Less ice in the Arctic may mean that more ports, infrastructure, and other facilities will be developed in the Arctic Ocean area. An increase in facilities will create job opportunities and require investments to ensure safety and environmental protections
- **This option recommends identifying needed services and protections based on increased use and infrastructure in the Arctic Ocean, including search and rescue, navigational safety, inspection, and enforcement of environmental and safety rules.**

DESIGN/IMPLEMENTATION

Option 1: Evaluate Potential Needs for Expanded Arctic Ocean Oversight and Regulatory Activities

- This option would be implemented through a Capital Improvement Project (CIP) to be tasked by the Governor's Office and led by AK-DOT to identify needed services and protections based on increased use and infrastructure in the Arctic Ocean.
- The CIP would be conducted by a contractor to identify and analyze Arctic requirements for services and capabilities and help identify opportunities to share costs, facilities, equipment, and responsibilities among agencies.
- This project would recommend a schedule of expansion based on immediate, 5-10 year, and >10 year needs

OVERVIEW

Option 2: Explore Economic Activity Opportunities Offered by Climate Change

- Economic opportunities may exist because of the unique Alaskan environment and early experiences dealing with climate impacts
- **This option recommends exploring the economic opportunities that may result from climate change such as:**
 - **New possibilities in existing industries – forestry, agriculture, fishing, mining, oil & gas, tourism**
 - **Carbon management**
 - **Renewable energy (tidal, wind, hydroelectricity) and energy efficiency**
 - **Sustainable infrastructure development**
 - **Adaptation and mitigation approaches**

DESIGN/IMPLEMENTATION

Option 2. Explore Economic Activity Opportunities Offered by Climate Change

- Consider establishment of public/private board to identify and foster climate change-related opportunities, seek and receive funding (e.g., from new markets regulating GHGs), and disperse funds efficiently
- Implementation mechanisms needed for this option include:
 - an executive order from the Governor directing coordinated preparations prior to any climate change legislation, and
 - national/regional legislation to regulate greenhouse gases and distribute auction revenues to the state and region

OVERVIEW

Option 3. Develop Scenarios for the Alaska Economy Affected by Climate Change

- The Alaskan economy will experience varying impacts due to climate change and a better understanding of the potential impacts of climate change to the State's natural resource based economy is needed
- **This option recommends that funding be provided to a research entity to develop economic scenarios to better prepare for the effects of climate change on Alaska**

DESIGN/IMPLEMENTATION

Option 3. Develop Scenarios for the Alaska Economy Affected by Climate Change

- Identify appropriate researchers/scientists to engage
- Identify models, scenario approaches, and parameters of interest (e.g., climate, social, cultural, technical, and economic)
- Acquire data and develop scenarios
- Distribute, discuss, and evaluate results to outline possible futures for the Alaska economy, including potential changes in population, infrastructure, sector job growth, etc.

OVERVIEW

Option 4. Establish a Center for Knowledge Sharing on Arctic Issues

- Many Alaskan organizations, as well as federal and international partners, are engaged in efforts related to Arctic issues and Alaska's role
- Efforts are often disparate or not coordinated
- **This option recommends establishing a focal point to coordinate information on Arctic issues**

DESIGN/IMPLEMENTATION

Option 4. Establish a Center for Knowledge Sharing on Arctic Issues

- Establish a focal point (individual or organization) for collecting and disseminating information relative to the various national and international forums on these Arctic issues. This focal point would support:
 - Networking to coordinate different efforts
 - Knowledge sharing with extensive information management and an online clearinghouse for documents and data on Arctic issues
- This center could be housed within a state agency or at the University of Alaska

OVERVIEW

Option 5. Improve Availability of Mapping, Surveying, Charting and Imagery Data

- The ability to respond to the effects of a changing climate socially and economically require improved knowledge about components of the physical environment such as elevation and coastal conditions.
- **This option recommends investments in an accurate and high-resolution statewide digital base map that includes a digital elevation model and imagery. The option supports the Alaska's current Statewide Digital Mapping Initiative (SDMI)**

DESIGN/IMPLEMENTATION

Option 5. Improve Availability of Mapping, Surveying, Charting and Imagery Data

- SDMI (led by DNR, DOT, Military and Veterans Affairs, U of A, USGS, and BLM) is willing to serve as a governing body, or can be used as a template if a broader representation is required
- Funding plan for DEM is needed (under development)
- Specifications and funding plan for a satellite imagery acquisition system (under development)
- SDMI currently has \$6M to develop initial specs and plans, additional funding would need to be allocated to develop data sets

Thank you!

<http://climatechange.alaska.gov/>

Contact info: Nancy Tosta, Ross & Associates
nancy.tosta@ross-assoc.com
(206) 447-1805