What’s on the Horizon: Actionable Science and Sustained Assessment

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Assessments are a critical foundation for climate services and for adaptation efforts.
Assessments and Adaptation

Proactive adaptation means anticipating and preparing for future conditions...

It requires rigorous observations of changes as they occur and monitoring and evaluation of a range of conditions over time. It also requires projections of future conditions.
Goals for the NCA3

• A sustained process for informing an integrated research program

• A scientific foundation for decision support, including scenarios and other tools at multiple scales

• Evaluation of the implications of alternative adaptation and mitigation options

• Community building within regions and sectors that support adaptation and resilience
Desired Outcomes of the NCA3

- **Ongoing, relevant, highly credible analysis** of scientific understanding of climate change impacts, risk, and vulnerability

- Enhanced timely **access to Assessment-related data** from multiple sources useful for decision making

- **A National System of Indicators** of change and the capacity to respond…

- **A Sustained Assessment Process?**
NCADAC Sustained Assessment
Special Report Recommendations

• Establish a coordination office with strong leadership

Goal 1: Establish enduring collaborative partnerships with civil society

Goal 2: Build the scientific foundation for managing the risks of climate change

Goal 3: Provide infrastructure to support the sustained assessment

Goal 4: Diversify the resource base and set priorities

Preparing the Nation for Change:
Building A Sustained National Climate Assessment
http://tinyurl.com/SASR-final
The path forward: Assessing adaptation outcomes

- Costs and benefits of action vs inaction (who are the winners and losers?)
- Potential for adverse consequences of decisions, including unanticipated consequences at the interface of adaptation and mitigation
- Monitoring for effectiveness – what are the metrics? What is the baseline?
- Deciding when to move from low regrets options to more significant/higher investment options
- Environmental justice and equity issues
Actionable Science Challenges

• Uncertainties in estimating the nature, timing and magnitude of climate impacts
• Long term, multi-generational issue: short term costs vs long term benefits?
• Attribution issues, cost of action vs. inaction
• Lack of data regarding costs and benefits of alternative adaptation options at multiple scales
• Need for better coordination of regional and national efforts in support of adaptation
• Lack of science translation capacity
• Understanding the decision context
Ingredients of a Climate Service

• Vision
• Resources
• Incentives
• Relationships

Regional Knowledge Networks, building from existing capacity, with better articulation and stronger linkages

• Actionable Science = understanding what is at risk; what we know and what we don’t; what questions to ask and answer; how to use what we know; how to characterize uncertainty.