

An evolving relationship between the LCC and CSC in the Southeast



Some quick remarks...

- LCC and CSC challenges
- Where we would like to get to
- Initial steps toward this outcome

LCC/SECSC challenges

- “Wicked Problems” – CC problems have no definitive formulation and no clear point at which they are solved.
- Mixing the science and management cultures: doing science that passes the “so what?” test.
- Defining priorities and differentiating responsibilities.

“Wicked Problems”

- Scientific complexity
 - Challenging to understand vulnerability of complex interacting systems operating at many scales
- Better information does not lead to better decisions
 - Information may be scientifically relevant without being decision relevant; improving science no guarantee on increased use.
 - Solving societal problems is not just a matter of generating new and better technical knowledge
- Values conflict and uncertainty
 - Perceptions of risk and value associated with effects of CC and management activities vary and are evolving with experience.
- Urgency –management actions won't be postponed until scientific and value uncertainties are resolved

Cultural challenge: doing science that passes the “so what?” test

Unclear exactly how to do this, but...

- Upfront communication
 - Not assuming that scientists know best about the “so what?” of a societal problem
 - Mgt. information needs frame the science
- Ongoing communication
 - How to involve managers as part of the science team...without burning them out.
 - How to communicate in a way that fosters learning and adaptation

Defining priorities and differentiating responsibilities.

- CSC priorities for now
 - Data/investigations that apply to multiple LCCs
 - Regional landscape/climate changes
 - Connection point for understanding cross-LCC science needs
- Longer term priorities
 - A portfolio approach, with a mix of
 - Curiosity/speculative vs applied
 - Short vs longer term
 - Data infrastructure vs interpretive
 - Regional vs local (balancing national and int'l GC research agenda and LCC needs closer to home)

Agencies, tribes, NGOs, & private landowners

Planning, analysis,
and decision-making

Adaptation needs met:
changes in policy,
management, etc.

Development of
analytic and decision-
making tools

Monitoring and
data collection

DOI Science
Support

LCC's

CSCs

Syntheses and
assessments

Science and model
development

How to judge the effectiveness of SECSC/LCC relationship?

- Science information considered by users as credible, legitimate, actionable, and salient for decisions
- Process engages scientists and decision makers in mutual learning and production of knowledge that would not have emerged from either side alone.
- Process yields increased mutual understanding, respect, and trust
- Decision makers determine that decisions were improved by virtue of the science support provided by the SECSC.

First steps in moving toward these outcomes

- St. Pete meeting: understand “in-house” science capabilities and the relation to LCC needs
- Resulting FY12/13 SECSC funding focus:
 - Synthesis of State of Science
 - Downscaling, ecohydrology, SLR, urban growth, climate vulnerable ecosystems, communicating uncertainty
 - Connectivity analysis
 - Sustainable landscape conceptual model
 - Impact of mangrove migration on coastal ecosystems
 - Snowfall projections for Eastern US.



Overview: Status of Southeast CSC

- NCSU selected as host Sep 2010
- Sonya Jones, acting SECSC Director 2010-2011
- Jerry McMahon, SECSC Director July 2011
- Science Plan approved February 2012
- Co-op Agreement funds 12 graduate students, partial support for 2 Post-docs, and infrastructure. No direct support for faculty research.
- Supports new NCSU Master Degree (Climate Change & Society)
- <http://www.theglobalchangeforum.org/se-csc/>