



Using participatory modeling and citizen science to help fishermen on the US East Coast identify ways to adapt to a changing climate

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Project Goals

Improve understandings of how a changing climate will affect fishing communities' abilities to maintain fisheries and the local economies dependent upon them

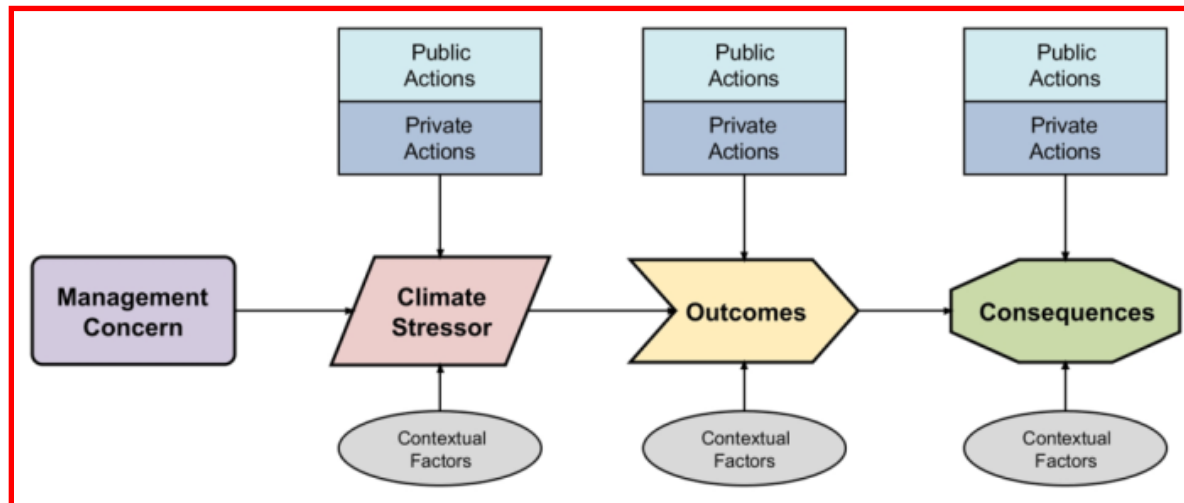
Investigate the role of a structured dialogue and participatory modeling process in addressing consequences, vulnerabilities, and adaptive strategies in a context of climate stressors



How to Achieve Those Goals...

VCAPS

- Vulnerability, Consequences, & Adaptation Planning Scenarios
- Group dialogue-based concept mapping
- How our community will be affected by climate change



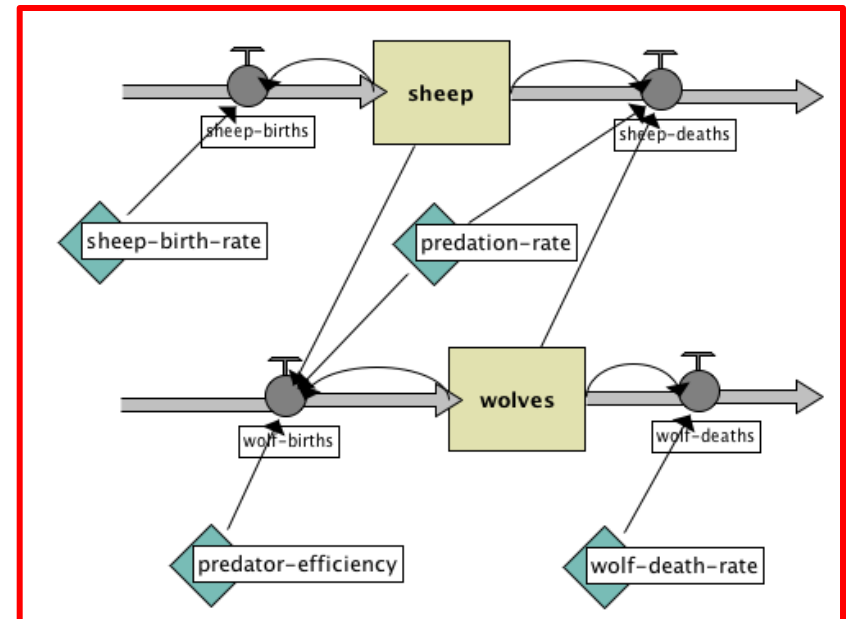
How to Achieve Those Goals...

VCAPS

- Vulnerability, Consequences, Adaptation Planning Scenarios
- Group dialogue-based concept mapping
- How our community will be affected by climate change

System dynamics participatory modeling

- Take a portion of the system
- Understand its dynamic nature
- Explore scenarios for adaptation action



3 Case Studies along U.S. East Coast

South
Thomaston,
ME



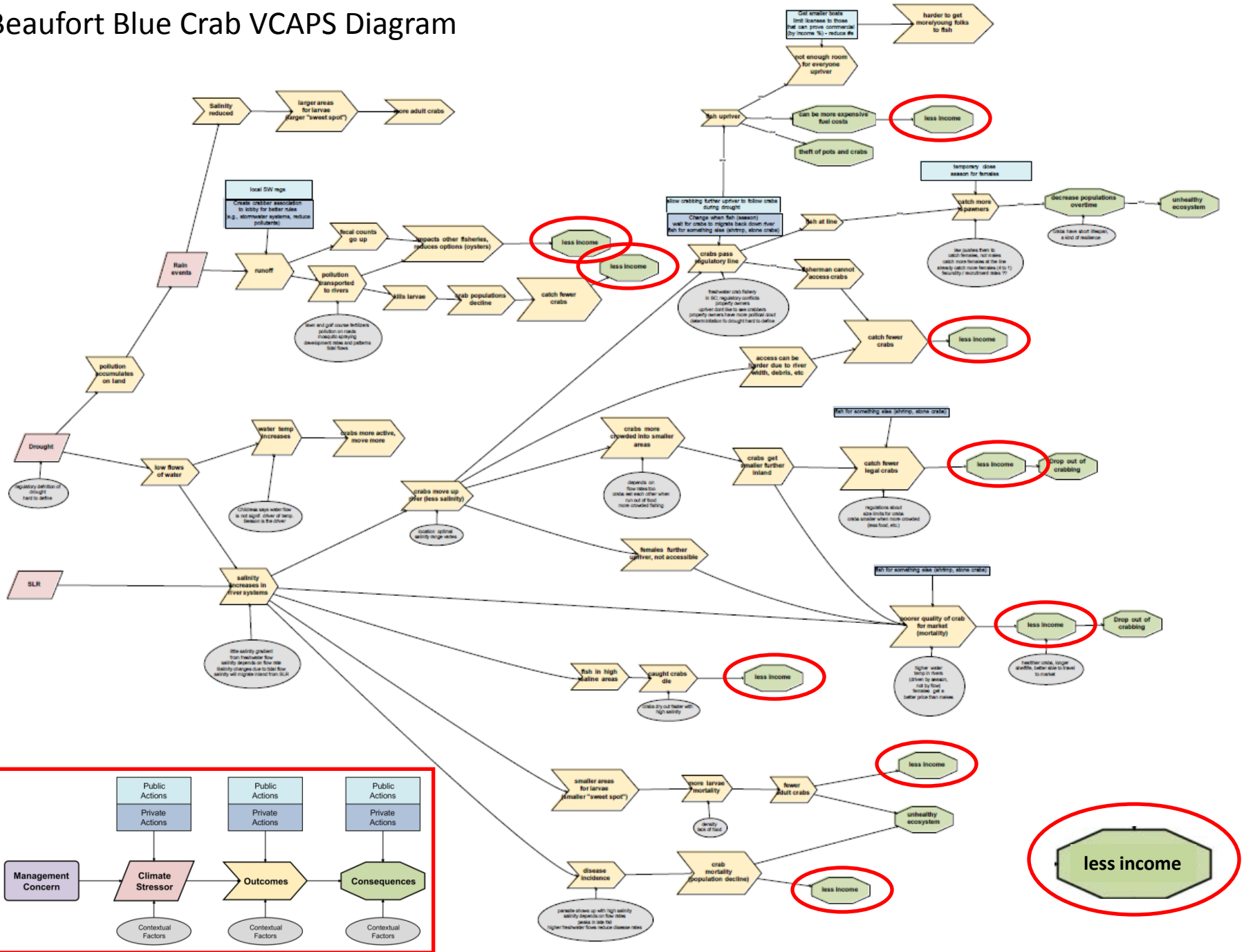
Wellfleet,
MA

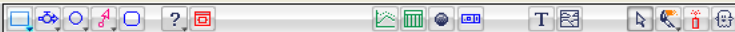


Beaufort, SC

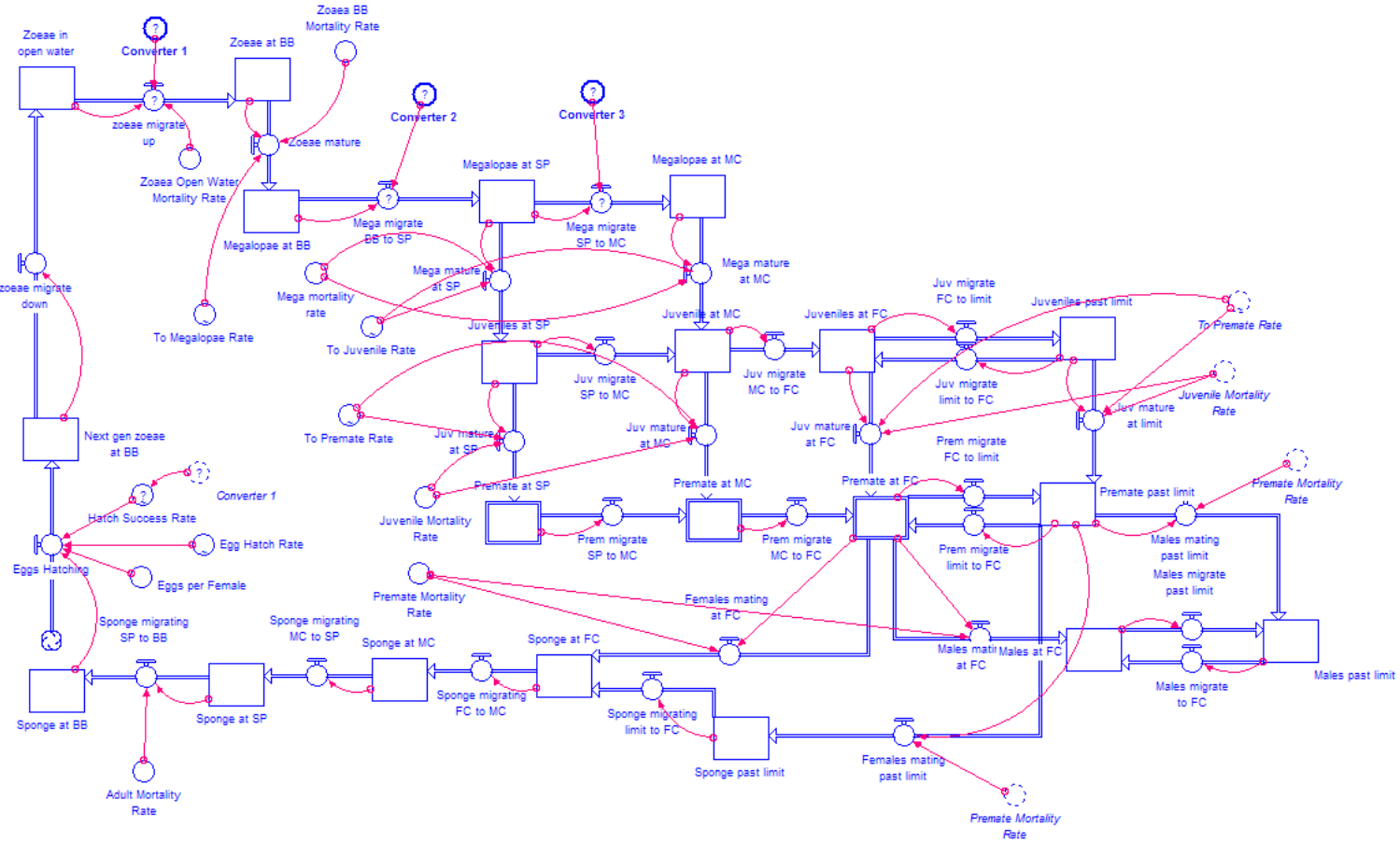


Beaufort Blue Crab VCAPS Diagram

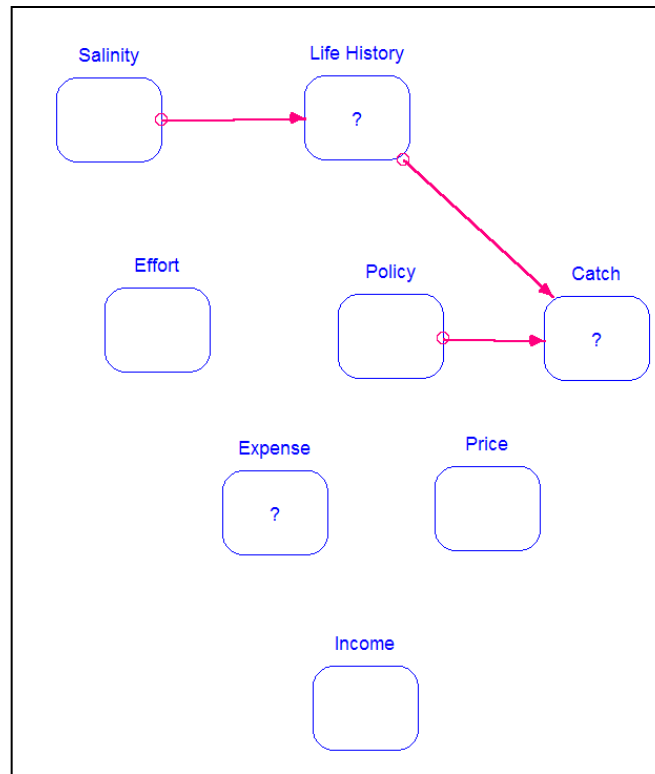




Map
Model
Equation



Data Gaps





Crabbers Who Care Research Network Data Sheet

Name:

Date:

Time:

Tide (circle one): high low rising falling slack

GPS Coordinates at
Beginning of Line:

Total # of Traps

Total # of Crabs

Fished Today:

Caught Today:

Temperature:

Units (circle one): Farenheit

Celsius

Salinity (ppt):

Depth (ft.)

Trap	# males			# females				By-catch (# of conch, stone crab, etc.)
	Juvenile	Mature	Peeler	Immature	Mature	Peeler	Sponged	
1								
2								
3								
4								
5								

Notes:

THANK-YOU FOR CARING ABOUT SOUTH CAROLINA'S MARINE RESOURCES. YOUR EFFORTS ARE APPRECIATED!

Questions? Comments? I want to hear them! 843-255-6060 ext 112 or julie.davis@scseagrant.org

Challenges/Lessons Learned/Opportunities

Integration of climate knowledge and coastal resource management

Fishermen have more climate knowledge than they realize

Importance of LTCK – Local and Traditional *Climate* Knowledge – in resource management

Stakeholder engagement and participation

Maintaining relationships with fishermen

Workshops vs. back-of-the-truck talks

Key communities and networks to engage

Gain momentum, expand CWCRN to a larger area

Support a regional approach to understanding blue crab populations and climate impacts

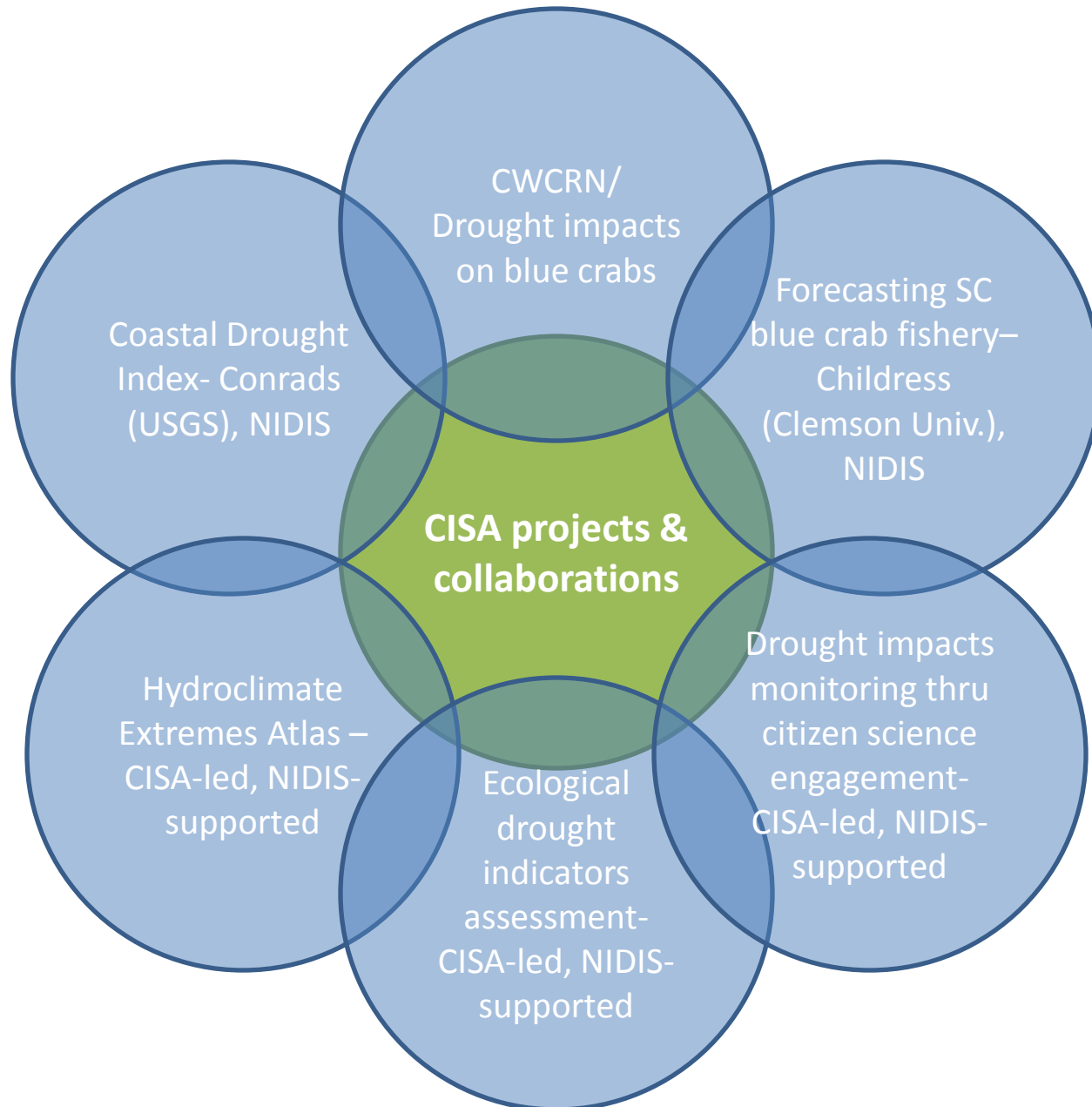
Effective pathways to disseminate coastal climate information

Face-to-face engagement

Word of mouth

Build on several efforts in the area

Future Opportunities



QUESTIONS?

