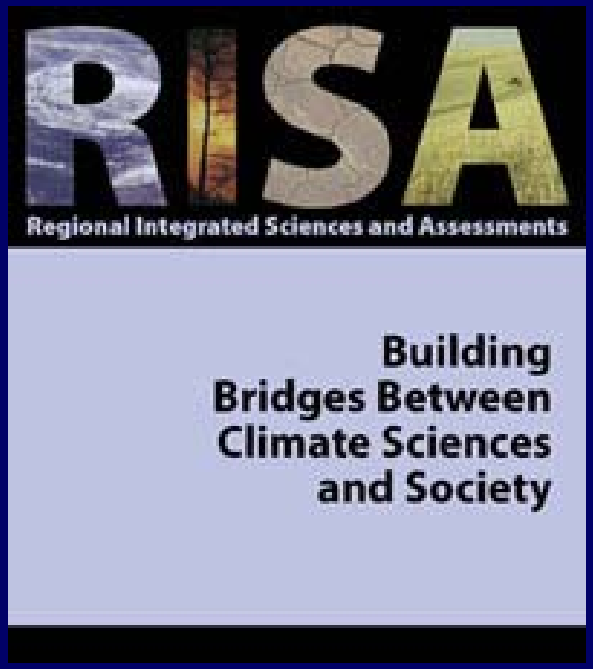
Shaping Science for Decision Makers: Lessons from the RISAs



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Science Policy Research and Assessment on Climate

US National Science Foundation
Program on Decision Making Under Uncertainty

- SPARC will conduct research and assessments, outreach, and education aimed at helping climate science policies better support climate-related decision making in the face of fundamental and often irreducible uncertainties.

What is Climate Science Policy?

- Decisions made about climate research portfolios
- Two research themes
  - Reconciling supply of and demand for research
  - Sensitivity of outcomes to various conditioning factors, e.g., role of vulnerability versus changes in extreme events in shaping disaster loss trends

SPARC Research Theme: Reconciling Supply and Demand (RSD)

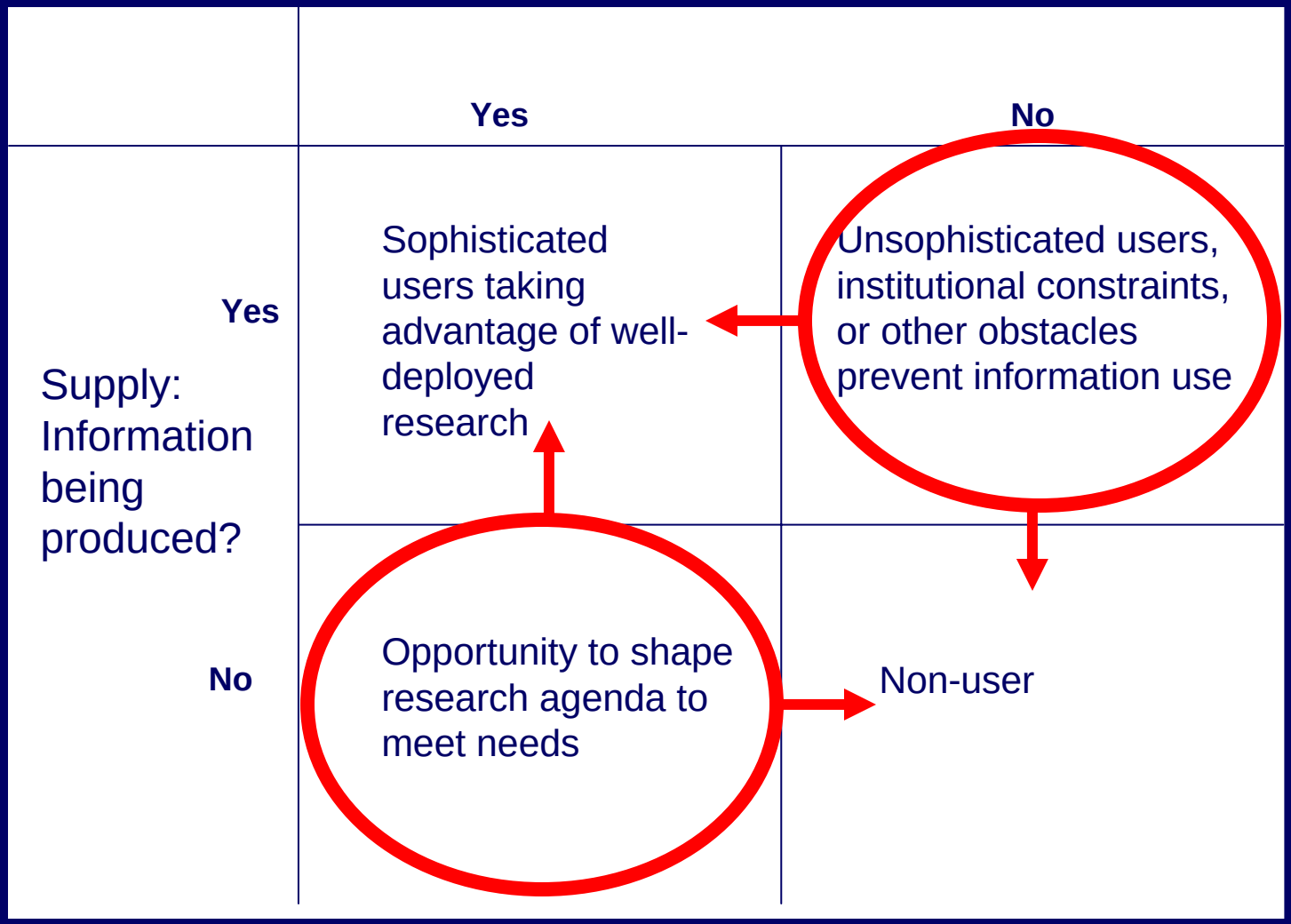
- Borrowed from classical micro-economic theory
  - "product or service" in this case is scientific knowledge
  - Supply = research activities as decided by science policies
  - Demand = potential or actual societal need for knowledge

Overall goal: to help "use-inspired" scientific research programs better meet their societal objectives.

Case studies:

- Carbon cycle science
- RISA programs

"Missed Opportunities"

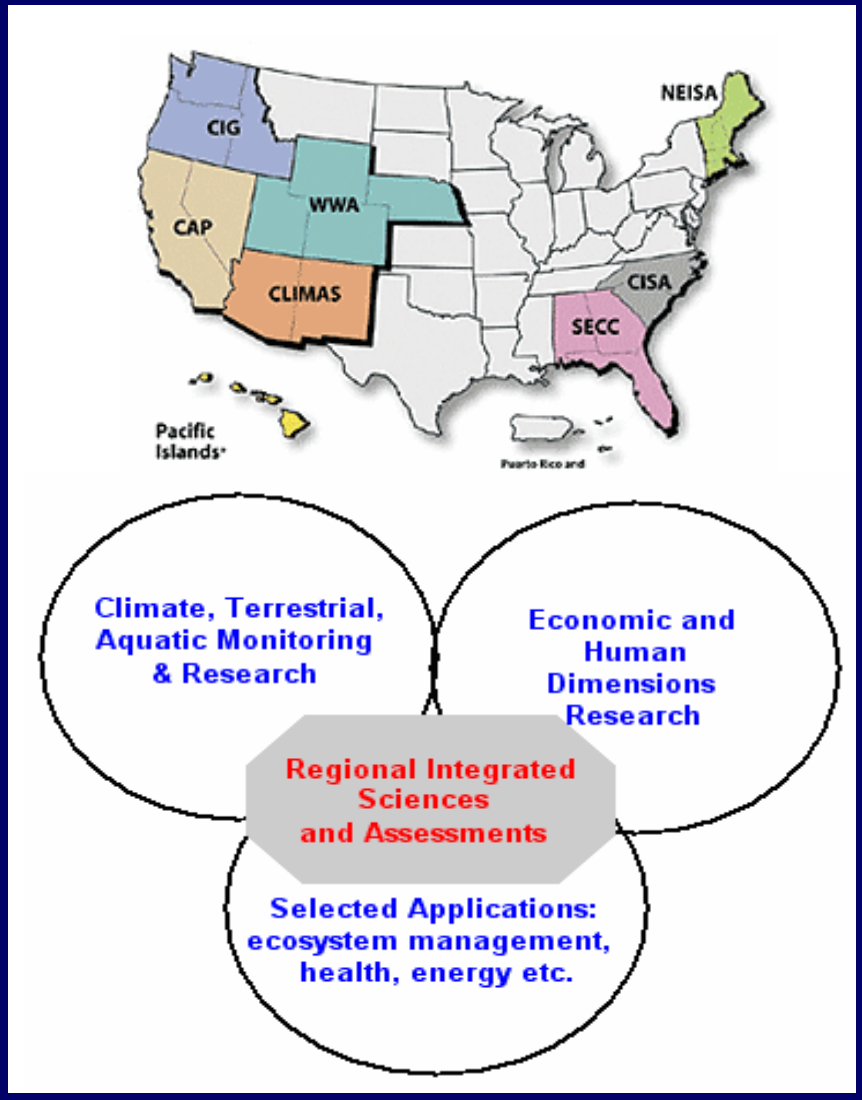


About RISA

- NOAA
- ~$10M of ~$1.8B

RISA
Regional Integrated Sciences and Assessments

Building Bridges Between Climate Sciences and Society



Hawaii SPARC RSD RISA Workshop Aug 2005

- What lessons can we learn from the RISAs for better connecting climate research and decision makers?

Lessons Learned

- RISAs are a success story
- RISAs implement different models of RSD
  - Advocacy
  - Information Broker
  - Assessment
  - Consultant
  - Basic research
- RISAs provide evidence that the human dimensions research community has a very good theoretical and practical understanding of how to conduct research that is well connected to the needs of decision makers

Lessons Learned

- Operational demands drive out assessment research unless there is a means to transition products and services to operational entities
- Serving final end users is fraught with ethical, legal issues, e.g., public/private roles and responsibilities
- The most effective RISAs included operational service providers as their main "customers"
- Bulk of climate research portfolio in US provides useful reservoir of knowledge, but is not directly useful to decision makers
- Yet, there is little evidence of connections from the RISAs back to the larger climate research enterprise
- RISAs are not yet institutionalized within the climate research community
- NOAA leadership of the RISA programs is inconsistent (at best)
- RISAs provide numerous practical lessons for the expansion of
- Climate research efforts designed to be of practical use

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