Regional Integrated Sciences and Assessments (RISA)
FY 2018 Information Sheet

Climate and Societal Interactions Overview

The mission of the NOAA Climate and Societal Interactions (CSI) research portfolio is to inform improvements in planning and preparedness in diverse socio-economic regions and sectors throughout the U.S. and abroad via the integration of knowledge and information about extreme weather and climate. Our research advances the nation’s understanding of climate-related risks and vulnerabilities across sectors and regions - within and beyond our borders - and the development of tools to foster more informed decision making. These efforts support NOAA's vision to create and sustain enhanced resilience in ecosystems, communities, and economies. The overall objectives of the CSI portfolio are the following:

1. Support innovative, applicable, and transferable approaches for decision making, especially for risk characterization in the context of a variable and changing climate;

2. Establishment of a network of regionally scoped, long-term efforts to inform climate risk management and decision making; and

3. Promotion of the transfer of climate knowledge, tools, products, and services within NOAA, across the federal government, nationally, and internationally.

These objectives are pursued through four complementary, interdisciplinary research programs: the Regional Integrated Sciences and Assessment (RISA) Program; the International Research and Applications Project (IRAP); the Sectoral Applications Research Program (SARP); and the Coastal and Ocean Climate Applications program (COCA).

**RISA** – supports research teams that conduct innovative, interdisciplinary, user-inspired, and regionally relevant research that informs resource management, planning, and public policy.

**IRAP** – supports activities to link science and assessments to practical risk management challenges in regions where weather and climate affect U.S. interests at home and abroad.

**COCA** – supports interdisciplinary applications research on the impacts of climate variability and change on coastal communities and coastal and marine ecosystems to inform decision making.

**SARP** – addresses the needs of a specific stakeholder or set of stakeholders within key socioeconomic sectors (e.g., water resources, agriculture, health, etc.) grappling with pressing climate-related issues.
CSI is an active partner in NOAA’s efforts to enhance and support services. This partnership brings together NOAA Regional Climate Services Directors (RCSDs), other NOAA service line offices, and close external partners such as RISA teams, Regional Climate Centers, State Climatologists, Sea Grant and other U.S. Government agencies to help make weather and climate information and products relevant, accessible and actionable to people across the U.S.

CSI activities address the societal challenges identified in NOAA’s Next-Generation Strategic Plan (NGSP): i) climate impacts on water resources; ii) coasts and climate resilience; iii) sustainability of marine ecosystems; and iv) changes in the extremes of weather and climate. CSI programs support NOAA’s vision to create and sustain enhanced resilience in ecosystems, communities, and economies, as outlined in the NGSP.

**Regional Integrated Sciences and Assessments**

The NOAA Climate Program Office’s (CPO) Regional Integrated Sciences and Assessments (RISA) program supports research teams that help regions and communities better prepare and plan for hazards and extreme events. RISA teams conduct innovative, interdisciplinary, user-inspired, and regionally relevant research that informs resource management and public policy. Central to the RISA approach are commitments to process, partnership, and trust building. CPO funds eleven different RISA teams across the United States (US) and Pacific Islands, many of which are a model for interdisciplinary science and assessment.

This section contains the details of the RISA competition for FY 2018. We are soliciting proposals to fund one RISA team focused on the South Central region in the US where there are ongoing RISA activities.

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1. Geographic Scope

Regions have been an organizing influence for both decision makers and scientists working on climate adaptation. Recognizable climate patterns, such as the El Niño Southern Oscillation (ENSO), emerge at the regional level where our understanding of observations and models coalesce. Critical resources for society are managed in a context of regional systems, such as water supply and human populations. Multiple scales of governance (local, state, and federal) with complex institutional relationships can be examined across a region. Climate information (i.e. data, science, research, etc.) developed within these contexts and working across spatial and temporal scales resonates with people making decisions on the ground.

When determining the geographic scope of your RISA, applicants should consider what is manageable to balance effectively working with stakeholders across an appropriate regional geography and being an effective RISA. Current RISA regions generally cover two to four states, large watershed boundaries, or issue-focused areas (e.g., the urbanized, heavily populated corridor between Boston, New York, and Philadelphia). The geographic focus should also allow for work within and across sectors. For example, a geographic focus defined by a watershed area should not preclude research on urban health or agriculture, and vice-versa.

**South Central:** Oklahoma, Texas, Louisiana, Arkansas, and coastal Mississippi.

Applicants are encouraged to contact the RISA Program team at NOAA’s Climate Program Office: oar.cpo.risa@noaa.gov.

2. Issue Focus

Applicants should consider tackling interconnections among multiple issues relevant to a region as opposed to an individual project addressing site-specific analysis. Climate will have implications for a myriad of interconnected management and planning decisions in the region. From their own research and interactions with decision makers, applicants should identify the most important climate-sensitive issues and management challenges for their proposed region. Special consideration should be given to those communities or stakeholders in the regions for whom there is currently less direct engagement with climate information science and service providers/entities. Applicants should also consider NOAA mission-oriented topics that could benefit from the work of a RISA who could integrate information from and work across multiple issues. RISA activities should address a number of the societal challenges identified in NOAA’s
Next-Generation Strategic Plan (NGSP): i) climate impacts on water resources; ii) coasts and climate resilience; iii) sustainability of marine ecosystems; and iv) changes in the extremes of weather and climate. These efforts support NOAA’s vision to create and sustain enhanced resilience in ecosystems, communities, and economies, as outlined in the NGSP. We do not, however, anticipate that a proposed RISA would work solely in these areas.

Specific issues of focus will naturally vary for each region, but there are overarching themes that may be addressed. Implications of climate on water management issues are of concern in many regions and contexts. For instance, competing needs across vulnerable sectors and scales (e.g. urban to rural); intersections of water management issues across communities, agriculture, industry, and public lands; and drought impacts and the use of climate and drought information (e.g. seasonal outlooks, evapotranspiration data, early warning information) in planning may be areas of focus.

Emerging threats or vulnerabilities to communities, resources, and ecosystems due to climate variability, including extreme events, such as wildfire, flooding, drought, and other hazards could be investigated. The implications for risk response and resilience and preparedness planning in the context of these threats could be considered. Urban areas are also an important frontier for understanding the physical and societal impacts of climate, particularly in the context of vulnerable populations, public health, coastal flooding, and other issues. The RISA approach may also be well suited in some regions to investigating climate-sensitive issues that arise at the intersection of communities (local and state; urban and rural) and surrounding public, managed, or working lands and private industry.

For each region, it is important for applicants to consider how they will work with additional regional networks where applicable (e.g. USDA Climate Hubs and Cooperative Extension, DOI Climate Science Centers (CSCs) and Landscape Conservation Cooperatives (LCCs)) as well as existing relevant NOAA assets in the regions (e.g. National Integrated Heat Health Information System, Regional Climate Centers, Regional Climate Services Directors, National Weather Service offices, Sea Grant, NOAA research laboratories etc.).

For climate and conservation management issues, applicants must identify what a RISA would uniquely offer on these issues in comparison to what a Department of Interior's Climate Science Center or other regional entity is or will be addressing. Similarly, for climate and agricultural issues, applicants should identify a RISA niche that is distinct from USDA Hubs efforts. While distinguishing RISA efforts from those of other regional networks is important, we encourage applicants to consider where they could partner with these, and other, networks to achieve their outcomes, and how the work of a RISA would benefit from these interactions.
3. Research Objectives

Applicants should review the Evaluation Criteria set forth in the Federal Funding Opportunity associated with this competition. These criteria include Technical/Scientific Merit, Project Costs, Qualifications of Applicants, and Importance/Relevance and Applicability to Program Goals. This section includes a description for the RISA program objectives and other critical factors for addressing those evaluation criteria.

RISAs support CSI by meeting the following objectives:
- Understand decision contexts for using climate information
- Develop actionable knowledge through interdisciplinary research
- Maintain diverse, flexible networks for sharing knowledge
- Innovate services to enhance the use of science in decision-making
- Experiment with different programmatic frameworks for connecting science with users
  (see Section 4)

Understanding Decision Contexts
Climate information can support decisions to adapt to a changing environment, but only if the climate research community and decision makers work together to understand each other’s needs and limitations. RISA teams are effective because they have been able to create lasting relationships with decision makers from the public and private sectors including local, regional, and state governments, federal agencies, tribal governments, utilities, the business community, and national and international non-profit organizations. Through these relationships, RISAs learn about specific decision contexts within and across different sectors of society, advancing our overall understanding of the use of science. RISA teams investigate climate impacts on sectors such as, but not limited to: fisheries, water, wildfire, agriculture, public health, transportation and coastal zone management, and enable the use of climate information (historical data, impacts assessments, regional outlooks and projections, etc.) and other early warning information to support both short- and long-term planning and decisions.

Developing integrated, interdisciplinary knowledge
RISA teams use their understanding of different decision contexts to develop and co-produce knowledge tailored to suit specific needs for climate information across different timescales and, more broadly, for context-specific scientific knowledge. RISAs characterize climate extremes, variability and change using paleoclimatic records, instrumental data, and climate predictions and projections. Each method or analytical technique in this portfolio brings its set of uncertainties and particular deficiencies, some of which are large or only partly characterized and poorly quantified. Integrating information across this mixed portfolio produces a more comprehensive characterization of a variable climate including the potential for extreme events
outside the range of climate models. RISAs integrate climate science with interdisciplinary knowledge to assess impacts, vulnerability, and risks and to inform and evaluate adaptive response options and tradeoffs. RISA’s interdisciplinary knowledge base helps understand the interaction between climatic and non-climatic stressors.

Maintaining knowledge networks
RISAs work at the interface of science and society to increase capacity for making decisions in a rapidly changing environment. RISA processes and products are designed as systems for learning and knowledge-exchange sustained through lasting relationships between researchers and organizations or individuals engaged in climate-related decision making. As societal awareness of climate risk grows, climate information is being infused into public spheres in richer ways placing more emphasis on innovation of different methods for providing actionable knowledge. The experimental and innovative nature of RISAs extends beyond “snapshot” assessments or tools or products alone.

Innovating Services
RISA teams strengthen the development of climate services in the public and private sectors by bridging science and service communities. RISAs innovate and enhance capabilities that can be incorporated into successful tools and practices into ongoing services. RISAs work closely with applied scientists who provide predictions and projections of weather and climate, with cooperative extension and outreach professionals, and communications experts. These experimental services include, but are not limited to:

- Climate impacts trainings
- Climate outlooks and outlook fora
- Climate extension
- Communication tools (visualizations, white papers, reports, etc.)
- Decision support tools and information systems for drought, climate, water supply and availability, agriculture and other impacts

Costs
Core RISA team work can be proposed at $450,000-$500,000 per year for up to 4 years, with an additional up to $150,000 per year for a sustained assessment specialist. Pending budget appropriations and availability, funding for this award may be limited to 3 years.

Additional resources:
Websites
NOAA RISA: http://cpo.noaa.gov/RISA/
National Climate Assessment: www.globalchange.gov/what-we-do/assessment
National Climate Assessment Regional and Sectoral Technical Input Reports:
NOAA Next Generation Strategic Plan: [http://www.ppi.noaa.gov/ngsp/](http://www.ppi.noaa.gov/ngsp/)

Reports & References

4. Sustained Assessment Specialist
As a complementary component to the core RISA work, NOAA is interested in supporting one university-based specialist to work with the South Central RISA team. The specialist will help to improve understanding of assessment activities in the South Central region and link key research and engagement staff within an NCA region, as well as with the US Global Change Research Program NCA National Coordination Office and NOAA. Applicants can propose up to $150K/year for the specialist and associated activities, including indirect costs, for up to 4 years. The length of time that NOAA will be able to support this specialist will depend upon budget appropriations. Where possible, applicants are encouraged to seek opportunities to leverage resources from agency partners to support this work.

The sustained assessment specialist could undertake a subset of the following activities in concert with RISA and NCA goals:

1. Synthesize research findings and information about adaptation activities in the region as ongoing input to the NCA process as well as relevant regional processes;
2. Convey information about regional decision makers’ needs to help shape future assessment priority topics, products and processes;
3. Act as a liaison between the RISA network within an NCA region and the NCA interests at USGCRP and NOAA;
4. Provide information to regional stakeholders and RISA partners within a region about NCA activities, resources (e.g., fact sheets, digital graphics and platforms), and cross-regional or national assessment dialogue;
5. Help to strengthen regional networks toward improving climate assessment capacity in the South Central region, including with other federal partners and federally-funded capabilities, where relevant;
6. Document regional assessment activities and partnerships as part of an effort to evaluate ongoing climate assessment work and share this input with NCA and NOAA; 
7. Interact with other regional climate assessment specialists within the RISA network to foster cross-regional understanding of assessment work and share lessons.

A Sustained Assessment Specialist would be resident at a RISA. They should have demonstrated expertise and experience regarding climate across timescales (e.g. variability and change) and related climate impacts. Be sure to include some specific activities that the Sustained Assessment Specialist could undertake that would provide co-benefits to the RISA endeavor.

Interested applicants should include a separate statement of work if they are proposing to include this component in their RISA. The description of this proposed component should not exceed 3 pages and should be separate from the main RISA statement of work, though it can be referred to in the main statement of work where appropriate. A separate budget breakdown from that of the core RISA activities should be included in the proposal and does not count towards any page limits. Costs for this component should be included in total costs on the official NOAA budget forms.

**5. Program Design**
The end-to-end nature of the dialogue between the climate scientists and the stakeholder network provides the perfect setting for social scientists and outreach experts to evaluate the overarching issue of the role of science in supporting policy and decision-making, particularly climate science. RISA teams are expected to have some form of evaluation of their efforts in the region (e.g., the impact of the RISA on decision making in the region as well as the influence of stakeholder input on the team’s science agenda). Teams should consider evaluation questions and methods as part of their research agenda. For example, how well is the team doing stakeholder engagement, developing tools, and reflecting on that process?

RISA teams maintain diverse structures for program leadership and management. This diversity is critical for maintaining healthy relationships between multiple institutions, leveraging scientific capabilities within regions, and learning new ways to develop science in support of society. In developing a RISA program, it is important to consider how the team and activities will be managed. It is critical for RISA teams to have staff (often Program Managers) who facilitate and manage team integration. Details about how Program Managers will manage advisory structures, engagement, and coordination with other entities should also be considered.

**6. Additional Factors for Proposal Preparation**
This section is intended to provide additional information for successful submission of proposals.
For the RISA competition, only one application per team will be accepted.

6.1 Letters of intent
Interested applicants for all competitions are highly encouraged to submit a 1-2 page Letter of Intent (LOI) outlining plans for your proposal. These should be submitted as a pdf to the RISA Program Managers via oar.cpo.risa@noaa.gov.

6.2 Specifics about the proposal
Proposals that can show that they are building on what is already known from the published literature about the proposed topic (e.g., value of climate information, decision making under uncertainty, use/transfer of new scientific information, integrated modeling of natural and human systems, impact of climate on sector activities, sectoral decision making analyses) prove that the PIs have a comprehension of the topic and that their proposed work will augment the existing science and engagement. Most successful proposals have completed a literature review prior to applying for funding and have often held scoping meetings with regional stakeholders (or have a deep understanding of regional climate related issues) to build a solid foundation of regional needs, gaps and potential partners. Information about the activities of currently funded RISA teams is listed on the RISA website at cpo.noaa.gov/risa. For questions about the NOAA application forms please contact Stewart Carrera (stewart.carerra@noaa.gov). RISA proposals should indicate a start date of September 1, 2018. For questions about the content of the proposal, you may contact the RISA Program team at oar.cpo.risa@noaa.gov.

6.3 Nature of investigator teams
Multidisciplinary teams of investigators are often best suited for addressing the complex issues related to climate, society and enhanced adaptation through the use of science and technology. Previous successful projects/teams have integrated strong social with natural or physical science components to form a more comprehensive analysis of the dynamics of climate-human interactions. Finally, the proposal should include an explanation of the roles of the investigators and how the team will interact and integrate the multiple components. Investigators who will not be requesting funds for salaries must also be listed, along with their estimated time of commitment.

6.4 Partners
We encourage partnerships and collaborations between researchers and critical decisionmaking institutions in the region of study including: NOAA and other federal agencies, non-governmental organizations, boundary organizations, international organizations and regional networks, extension services, state and local governments, and representative private sector organizations. Leveraging and in-kind sharing of resources is encouraged and should be reported within the proposal. Letters of support, or commitment, from partners are encouraged to
accompany the proposals.

6.5 Cost-sharing
Cost leveraging and in-kind sharing of resources is encouraged and should be reported within the proposal.

6.6 Interaction with NOAA
Applicants whose proposals are chosen for funding will be expected to undertake an ongoing dialogue with the NOAA Climate Program Office (CPO). In particular, following the review process and before final selection of proposals by CPO program managers, successful applicants should expect to participate in virtual meetings with NOAA and its partners to discuss and possibly adjust the project narrative and budget.

Funded applicants will be expected to submit annual reports, respond to periodic data and information requests, and participate in dialogues involving the RISA network of investigators. The RISA awards are anticipated to be cooperative agreements and thus will require a high level of collaboration with CPO, as well as other entities within NOAA and NOAA’s partner agencies. Applicants are encouraged to include funding for two people to attend a RISA network meeting each year.

6.7 Page limits
The total page limit for proposals is 60 pages. The statement of work for the overall RISA program, excluding references and figures, should be no more than 25 pages. A separate statement of work for the Sustained Assessment Specialist component (not to exceed 3 pages) should include proposed overall duties of the specialist and how the person will be integrated into the broader efforts of the RISA team. Note that the statement of work for the overall RISA program (25 pages) should demonstrate how the sustained assessment component and additional RISA activities are connected and integrated into a cohesive program approach.

Vitae should be included for all key investigators. Only lead investigators need to include current and pending support. Letters of support, budget tables, budget justifications, subcontract information, Federal forms, Vitae, Current and Pending Support, and Data Management Plans are not included in the page count for this competition. Because the NOAA budget forms are designed for 4 years or less, please submit two SF424A forms, one for years 1-4 and the second for year 5 and the budget total. Note that all Federal forms (SF424, SF424A, SF424B, CD511) and other mandated forms are not part of the required page limit.
7. Webinars to discuss the RISA competition
RISA Program Managers will hold at least one webinar to discuss the RISA competition. Please check the RISA competition webpage for the webinar schedule.

To sign up to receive the webinar information, please send an email with the subject line, “RISA FFO Webinars,” to RISA Program Office at sean.bath@noaa.gov.

In addition, information on the FY18 Federal Funding Opportunity will be posted on the RISA website.

8. Data Management Guidance Requirements
Responsible NOAA Official
For questions regarding this guidance: oar.cpo.risa@noaa.gov

Data Accessibility
NOAA requires public access to grant-produced data. The use of open-standard formats and methods for data sharing is encouraged. Applicants must describe their approach in the Data/Information Sharing Plan section of their application (see the RISA Federal Funding Opportunity for more information on this requirement). Below are examples of methods to enable public access to grant-produced data:

- Data are submitted to the NOAA National Centers for Environmental Information (NCEI), which will provide public access and permanent archiving.
- Data are to be submitted to one of the following relevant International Council for Science (ICSU) World Data System facilities: https://www.icsuwds.org/community/membership/regular-members.
- Data are submitted to another NOAA facility (other than NCEI), which will operate a publicly accessible online data server for these data.
- An existing publicly accessible online data server at the funded institution is to be used to host these data.
- Data are to be submitted to a public data repository appropriate to this scientific domain.
- Funding recipients will establish their own data hosting capability.
- Proposal may request permission not to make data publicly accessible (the application should include a rationale for lack of public access, and if funded approval will need to be obtained from the Responsible NOAA Official listed above). Proposals should include the costs of data sharing or archiving in their budgets.