Climate and Societal Interactions

FY 2015 Information Sheet

The Climate and Societal Interactions (CSI) Program provides leadership on decision support research, assessments, and climate services development activities to help society adapt to a changing climate. CSI supports both U.S.- and internationally-focused projects to facilitate community building and learning about the challenges and solutions associated with understanding and meeting the climate-related needs of decision makers.

The overarching goals of the CSI Program are the following:

1. Support for innovative and broadly 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.

CSI research and capacity building activities address the four NOAA climate-related societal challenges: 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. By supporting the creation of knowledge and capacity for adaptation, these efforts foster NOAA's vision of resilient ecosystems, communities, and economies, as described in the Next Generation Strategic Plan.[1]

In addressing the societal challenges, CSI will also ensure alignment with the priorities of a number of interagency efforts such as the: President's Climate Action Plan, National Climate Assessment; Interagency Climate Change Adaptation Task Force; National Integrated Drought Information System Act (P.L. 109-430); National Ocean Council; the National Fish, Wildlife, and Plants Climate Adaptation Strategy; and the Global Framework for Climate Services (GFCS) initiative.

For FY2015, the three CSI programs holding competitions under this Federal Funding Opportunity include the Regional Integrated Sciences and Assessments (RISA) program, the Sectoral Applications Research Program, and the Coastal and Ocean Climate Applications (COCA) program.[2]

[1] http://www.ppi.noaa.gov/ngsp/

[2] Refer to program websites for additional information

The following table provides pertinent information about each program and a description of each of the competitions follows.

Competition	RISA	SARP - NIDIS Center	COCA
Competition Manager	Caitlin Simpson, Adam Parris, Sarah Close	Nancy Beller-Simms	Adrienne Antoine
Email@noaa.gov	caitlin.simpson, adam.parris, sarah.close	nancy.beller-simms	adrienne.antoine

The number of projects funded and funding amount of all projects are subject to the availability of funding.

Note that each of these competitions will be holding informational webcasts to discuss the background of these programs and expectations for this competition, as well as to address questions related to the development and submission of letters of intent and proposals. Please monitor the NOAA Climate Program Office website for times and accessibility information. Potential principal investigators can also contact the competition managers directly if needed.

Regional Integrated Sciences and Assessments

The NOAA Climate Program Office's (CPO) Regional Integrated Sciences and Assessments (RISA) program supports research teams that help expand and build the nation's capacity to prepare for and adapt to climate variability and change. 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.

NOAA's RISA program is overseen by CPO's Climate and Societal Interactions (CSI) division. CSI provides leadership and support for decision support research, assessments and climate services development activities in support of adaptation. In addition to RISA, CSI's programs include the International Research and Applications Project (IRAP), the Sectoral Applications Research Program (SARP), the National Integrated Drought Information System (NIDIS), and the Coastal and Ocean Climate Applications program (COCA).

CSI is also an active partner in the NOAA National Climate Data Center's (NCDC) efforts to build an integrated regional climate services partnership. NCDC employs six Regional Climate Services Directors (RCSDs) to coordinate and lead this partnership bringing together NOAA offices and close external partners such as RISA teams, Regional Climate Centers, State Climatologists, and Sea Grant. The partnership will help make climate information relevant and accessible to people across the US. NOAA seeks to marshal climate assets and partners towards the common goal of assessing regional needs and vulnerabilities and then supporting the development and delivery of timely climate services that aid adaptation and mitigation choices.

This section contains the details of the RISA competition for FY 2015. We are soliciting proposals to fund one RISA team focused on each of the following regions in the US where there are ongoing RISA activities: Pacific Islands, Pacific Northwest, Intermountain West, Great Lakes, Urban Northeast, and Southeast.

1. Geographic Scope
2. Issue Focus
3. Research Objectives
4. Sustained Assessment Specialists
5. Program Design
6. Additional Factors for Proposal Preparation
    - 6.1. Letters of intent
    - 6.2. Specifics about the proposal
    - 6.3. Nature of investigator teams
    - 6.4. Partners
    - 6.5. Cost-sharing
    - 6.6. Interaction with NOAA
    - 6.7 Page limits

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.

Within the general guidelines provided for each region, applicants should develop a proposal that is manageable in scope and has the capacity to become an effective RISA endeavor. 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.

- **Pacific Islands:** Hawaiian archipelago and the US-Affiliated Pacific Islands.
- **Pacific Northwest:** Washington, Oregon, Idaho
- **Intermountain West:** Colorado, Utah, Wyoming
- **Great Lakes:** Watersheds of the Great Lakes and accompanying states
- **Urban Northeast:** Urban corridor from Boston to Philadelphia
- **Southeast:** Georgia, Florida, and Alabama, with programmatic connectivity to the Gulf of Mexico, Carolinas, and/or Caribbean regions encouraged

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

Applicants are also encouraged to speak with NOAA's Regional Climate Services Director(s) (RCSD; http://www.rcsdhome.org/) in their region regarding how the priorities in the region relate to the mission of NOAA as well as the priorities of federal, regional, state and local partners.

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 variability and change 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. 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 may 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. 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 variability and change 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 or change, 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 variability and change, 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 NOAA assets in the regions (e.g. NIDIS pilot efforts, Regional Climate Centers, Regional Climate Services Directors, National Weather Service offices, Sea Grant, 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 Climate Science Center or other regional entity is or will be tackling for conservation networks. 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 Merit, Program Relevance, Costs, and Qualifications. 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 5)

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 changing climate including the potential for extreme events outside the range of climate change models. RISAs integrate climate science with interdisciplinary knowledge to assess impacts, vulnerability, and risks and to inform and evaluate

adaptive response options and trade-offs. 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 $500,000-$700,000 per year for up to 5 years.

Additional resources:
Websites
NOAA RISA:
http://cpo.noaa.gov/ClimatePrograms/ClimateandSocietalInteractions/RISAProgram.aspx
NIDIS: www.drought.gov/
National Climate Assessment: www.globalchange.gov/what-we-do/assessment

National Climate Assesssment Regional and Sectoral Technical Input Reports:
http://www.globalchange.gov/what-we-do/assessment/nca-activities/available-technical-inputs
NOAA Next Generation Strategic Plan: http://www.ppi.noaa.gov/ngsp/
Quarterly Climate Impacts and Outlooks:
http://www.drought.gov/drought/content/resources/reports
Reports & References
NRC. 2009. Informing Decisions in a Changing Climate. Washington, D.C.: The 2946 National Academies Press. (R. Correll, Chair) 2947
NRC. 2010. ACC: Informing an Effective Response to Climate Change. Washington, 2948 DC. National Academies Press. (D. Liverman and P. Raven, Co-Chairs) 2949
NRC. 2010. ACC: Advancing the Science of Climate Change. Washington, DC. National 2950 Academies Press. (P. Matson, Chair) 2951
NRC. 2010. ACC: Adapting to the Impacts of Climate Change. Washington, DC. 2952 National Academies Press. (K. Jacobs and T. Wilbanks, Chairs)

4. Sustained Assessment Specialists

As a complementary component to the core RISA work, NOAA is interested in supporting university-based specialists to work across RISA teams to act as key research and engagement staff between the RISAs in an NCA region, the US Global Change Research Program NCA National Coordination Office, and NOAA. Applicants can propose approximately $150-200K/year per person including indirect costs for 3-5 years. The length of time that NOAA will be able to support these specialists and the number of specialists to be supported will depend upon budget appropriations and priorities for the National Climate Assessment.

These sustained assessment specialists would undertake the following activities in concert with RISA and NCA goals:

1. Synthesize research findings and information about adaptation activities of the region as ongoing input to the NCA process;
2. Convey information about decision makers' needs to shape the next assessment;
3. Act as a liaison between the RISA network within an NCA region and the NCA interests at USGCRP and NOAA, working with RCSDs;
4. Provide information to the RISAs within a region about NCA activities, resources (e.g., fact sheets, digital graphics and platforms), and cross-regional dialogue.

A Sustained Assessment Specialist would be resident at a RISA and ***act as a shared resource across 2-3 RISAs***. They should be knowledgeable about climate across timescales (e.g. variability and change). Be sure to include some specific activities that the Sustained Assessment

Specialist could undertake that would benefit the RISA endeavor as much as NCA sustained assessment efforts.

Interested applicants should include a separate section at the end of their statement of work if they are proposing to include this component in their RISA. The description of this proposed component needs to be included in the page limits for the full project narrative and can be referred to in the main project narrative 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

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. 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 have demonstrated the importance of flexible governance structures for responding to factors that motivate interactions between scientists and decision makers including, among others, natural disasters, institutional change, climate literacy, and breakthroughs in science.

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 one-two page Letter of Intent (LOI) outlining plans for your proposal. These should be submitted to the RISA Program Managers at amrith.sagar@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. Information about current and previously funded projects is listed on the RISA website at http://cpo.noaa.gov/ClimatePrograms/ClimateandSocietalInteractions/RISAProgram/FundedProjects.aspx. For questions about the NOAA application forms please contact Stewart Carrera (stewart.carrera@noaa.gov). For questions about the content of the proposal, you may contact Caitlin Simpson at caitlin.simpson@noaa.gov, Adam Parris at adam.parris@noaa.gov, or Sarah Close at sarah.close@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 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 decision-making 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. Any in-kind time 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. 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.

6.7 **Page limits**

The total page limit for proposals is 45 pages. The statement of work including references and figures should be no more than 25 pages. Bios can be short paragraphs and only needed for main investigators if space is an issue. Only lead investigators need to include current and pending support. Letters of support are included in the 45 page limit. Budget tables, budget justifications, and subcontract information 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. 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 two webinars to discuss the RISA competition. They will be held on:

1) July 28, 3 pm. Eastern time
2) August 4, 3 pm. Eastern time

To sign up to receive the webinar information, please send an e-mail with the subject line, "RISA FFO webinars," to Amrith Sagar at amrith.sagar@noaa.gov.

Sectoral Applications Research Program (SARP)

For FY15, there will be no funding available for new individual research opportunities for either the extreme events or the Coping with Drought in Support of the National Integrated Drought Information System (NIDIS) (www.drought.gov) parts of the program. Instead, we will be continuing to support successfully ranked FY14 applicants. We anticipate a new competition for both research opportunities in FY16. We will, however, be funding a new NIDIS Center (described below).

NIDIS: A National Drought Monitoring and Risk Management Center

This Center will focus on research to improve drought monitoring, impacts assessment and risk management in close partnership with the National Integrated Drought Information System (NIDIS) and its domestic and international partners.

The goal of the Center will be to conduct applied research on drought risk management by: (1) helping lead the coordination of the national drought monitor and supporting products and tools, (2) engaging and integrating across all scales of drought preparedness and impacts; e.g., local, state, regional, tribal, national, and international, and key socio-economic sectors (3) advancing the societal components and economic benefits of regional drought early warning systems including drought event assessments, (4) advancing innovations in planning for drought, including incorporating drought information into multi-hazard mitigation planning, and (5) helping to communicate and coordinate across the NIDIS partner network.

Staff members from this Center will work directly with the NIDIS Program, through its working groups and implementation teams, and their partners, including the NOAA Regional Integrated Sciences and Assessments, Regional Climate Centers and other relevant regional efforts. This Center will coordinate research findings, and support targeted studies on risk management that inform and improve decision-making and enable enhanced capacity building, for ongoing and new NIDIS Drought Early Warning Systems (DEWS), and regional and international partnerships.

Center leaders and personnel will be expected to coordinate closely and meet quarterly, at least virtually, with the NIDIS program including Coping with Drought managers, to report on progress, emergent issues, and collaborate on next steps. The Center will provide written documents and assessments to support NIDIS reporting requirements under the NIDIS Public Law (PL 109-430)

Center staff should have demonstrated capability in:

- Developing drought decision support tools, including producing composite national level drought information products

- Working with a diversity of state governments (in more than one region of the country on drought plan development)
- Understanding and working with different types of drought and their impacts
- Providing leadership on implementation of drought policies; this would include experience working with a range of communities and agencies in the federal, state, tribal, and private sectors at the local, regional, national, and international levels
- Providing outreach materials for use by a variety of decision makers at diverse scales.

Funding for this Center would be approximately $450,000-850,000/year for three years in the form of a cooperative agreement with an option for up to 2 additional years (after a review). There will be an informational session on submission of Letters of Intent for this competition; watch the SARP website for further details: http://cpo.noaa.gov/ClimatePrograms/ClimateandSocietalInteractions/SARPProgram.aspx.

Coastal and Ocean Climate Applications (COCA) Program

Program Overview:

The Coastal and Ocean Climate Applications (COCA) program addresses the needs of decision makers faced with climate-related problems in coastal and marine environments. The program is designed to support interdisciplinary teams of researchers in the development and transition of climate-related research and information to enhance the response and coping capacity of decision and policy-makers to climate variability and change.

For FY15, COCA is soliciting proposals for: Supporting Resilient Coastal Communities and Ecosystems in a Changing Climate.

Supporting Resilient Coastal Communities and Ecosystems in a Changing Climate*:* Understanding climate-related human health risks within the coastal environment.

More than 50% of Americans currently live in coastal and Great Lakes watershed counties and $1 trillion of the gross domestic product comes from the coastal zone.[1][2] As a result, human pressures, such as coastal development, pollution, and habitat destruction, are impacting the health and sustainability of coastal ecosystems. As the number of Americans that move to or enjoy vacations in the coastal zone increases, so too will the stress placed on these vital ecosystems. This situation is intensified by impacts from changing climate conditions that further strain coastal ecosystems and the communities and economies that depend upon them.[3]

Coastal communities are vulnerable to increased public health risks from climate-related and non-climate related stressors placed on coastal systems.[4] These impacts can be direct from

changing weather and climate conditions, (e.g. heat waves, flooding, hurricanes, etc,) or more indirect health and safety risks associated with climate impacts on coastal ecosystems (e.g. harmful algal blooms, water quality and quantity, existing and emerging disease, contaminated seafood, etc.).[5] In FY15, to continue supporting resilient communities and ecosystems in a changing climate, COCA will support interdisciplinary research that improves our ability to respond and adapt to public health impacts related to changes in coastal ecosystems (or ecosystem changes in the coastal zone)

Research Priorities:
Develop tools, methodologies, guidance, and/or trainings to build the capacity of coastal decision makers to use climate related data and information to address the following:

- Extreme weather and climate events.
- Identify and assess key public health impacts of climate variability and change on coastal communities
- Identify and assess the key science, data, and information needs for coastal community and ecosystem adaptation to build resilience to future events.
- Improve understanding of how climate variability and change will impact the spatial and temporal variation of ecological risks to human health (e.g. harmful algal blooms, existing and emerging water-borne and vector-borne diseases, water quality and quantity, etc) within the coastal zone.

COCA is particularly interested in projects that partner with or build off of the following efforts:

A. Sea Grant climate extension projects
B. NOAA Sentinel Site Program
C. NOAA Ecological Forecasting Roadmap activities
D. Center for Disease Control (CDC) Climate-Ready States & Cities Initiative
E. CDC Environmental Health Tracking Program

All projects should:

1. Advance the application and integration of climate–related information into coastal decision-making.
2. Collaborate with and/or leverage relevant research and decision-making institutions: e.g. NOAA; non-governmental organizations; academic institutions; state, tribal, and local governments; private sector organizations; other federal agencies; etc.
3. Promote collaboration between scientists (e.g. physical, ecological, social, economic, etc.), and decision makers (e.g. public health officials, natural resource managers, Federal/state/local officials).
4. Ensure the science, approaches, lessons learned, and/or tools developed have application and/or transferability beyond the region of study.

COCA intends to support projects up to $150,000 per year for up to two years. *The number of projects funded and funding amount of all projects are subject to the availability of funding.*

Watch the COCA website for news about informational sessions on submission of LOIs/proposals in response to this call (See: http://cpo.noaa.gov/ClimatePrograms/ClimateandSocietalInteractions/COCAProgram.aspx).

---

[1] U.S. Census Bureau. 2010: Population of U.S. Cities. http://www.census.gov

[2] Global Climate Change Impacts in the United States. Thomas R. Karl, Jerry M. Melillo, and Thomas C. Peterson, (eds.). Cambridge University Press, 2009.

[3] Global Climate Change Impacts in the United States. Thomas R. Karl, Jerry M. Melillo, and Thomas C. Peterson, (eds.). Cambridge University Press, 2009.

[4] Burkett, V.R. and Davidson, M.A. [Eds.]. (2012). Coastal Impacts, Adaptation and Vulnerability: A Technical Input to the 2012 National Climate Assessment. Cooperative Report to the 2013 National Climate Assessment. pp. 150.

[5] Burkett, V.R. and Davidson, M.A. [Eds.]. (2012). Coastal Impacts, Adaptation and Vulnerability: A Technical Input to the 2012 National Climate Assessment. Cooperative Report to the 2013 National Climate Assessment. pp. 150.

CSI General Information

This section is intended to provide additional information for successful submission to all CSI proposals.

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 to the Competition Managers indicated in the introduction of this call.

Specifics about the Proposal

Principal Investigators (PIs) need to demonstrate how their proposal builds on what is already known from the published literature and related activities within the area of study about the proposed topic. Examples of background topics include: 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, use of climate information in development, etc. Most successful proposals have completed a literature review prior to applying for funding.

Information about current and previously funded projects is listed on each program's respective websites.

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 social with natural and/or physical science components to form a more comprehensive analysis of the dynamics of climate-human-natural interactions. 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.

Partners
We encourage partnerships and collaborations between researchers and critical decision-making institutions in the region of study such as: NOAA and other federal agencies, non-governmental organizations – both within and outside of the U.S. if appropriate, boundary organizations, international organizations and regional networks, extension services, state, tribal and local governments, the media, and representative private sector organizations. Any in-kind time should be reported within the proposal. Letters of support, or commitment, from partners are encouraged to accompany the proposals. Leveraging and in-kind sharing of resources is encouraged and should be reported within the proposal.

Interaction with NOAA
Applicants whose proposals are chosen for funding will be expected to undertake an ongoing dialogue with the NOAA Climate Program Office and program managers and will be expected to submit annual reports and respond to periodic data requests, including information about the climate information needs of decision makers involved in their projects.

List of Suggested Reviewers (optional)
Proposers are invited to include a list of suggested reviewers who they believe are especially well qualified to review proposals in the relevant subject area. These suggestions are optional, and the decision whether or not to use the suggested reviewers remains with the Competition Manager. All reviewers are required to sign a conflict of interest statement.

References:

Websites:
- Coastal and Ocean Climate Applications: http://www.cpo.noaa.gov/cpo_pa/coca/
- SARP: http://www.climate.noaa.gov/cpo_pa/SARP/
- Regional Integrated Sciences and Assessments: http://www.climate.noaa.gov/cpo_pa/risa/
- NOAA Climate Portal: http://www.climate.gov

- National Climate Assessment: http://www.globalchange.gov/what-we-do/assessment
- NOAA Next Generation Strategic Plan: http://www.ppi.noaa.gov/ngsp/
- Climate Prediction Center: http://www.cpc.ncep.noaa.gov/
- NIDIS: http: www.drought.gov/
- National Climatic Data Center: http://www.ncdc.noaa.gov/oa/ncdc.html
- NWS Climate Services: http://www.weather.gov/os/csd/index.php
- U.S. Global Change Research Program: http://www.globalchange.gov/
- International Research Institute for Climate and Society: http://portal.iri.columbia.edu/portal/server.pt

General:

- Jacobs, K.L., 2002. Connecting Science, Policy and Decision-Making: A Handbook for Researchers and Science Agencies, National Oceanic and Atmospheric Administration, Office of Global Programs, Silver Spring, Maryland
- NRC, 2009. Restructuring Federal Climate Research to Meet the Challenges of Climate Change. Washington, D.C.: The National Academies Press. (V. Ramanathan, Chair)
- NRC, 2009. Informing Decisions in a Changing Climate. Washington, D.C.: The National Academies Press. (R. Corell, Chair)
- NRC, 2010. ACC: Informing an Effective Response to Climate Change. Washington, DC. National Academies Press. (D. Liverman and P. Raven, Co-Chairs)
- NRC, 2010. ACC: Advancing the Science of Climate Change. Washington, DC. National Academies Press. (P. Matson, Chair)
- NRC, 2010. ACC: Adapting to the Impacts of Climate Change. Washington, DC. National Academies Press. (K. Jacobs and T. Wilbanks, Chairs)

Water Related:

- Brekke, L.D., Kiang, J.E, Olsen, J.R, Pulwarty, R.S, Raff, D.A, Turnipseed, D.P, Web, R.S, and White, K.D, 2009. Climate Change and Water Resource Management: A Federal Perspective: U.S. Geological Survey Circular 1331, 65p.
- NIDIS Implementation Team, 2007. The National Integrated Drought Information System Implementation Plan.
- Sectoral Applications Research Program website: http://cpo.noaa.gov/ClimatePrograms/ClimateSocietalInteractionsCSI/SARPProgram.aspx.
- U.S. Climate Change Science Program, 2008. Synthesis and Assessment Product 5.3 Decision-Support Experiments and Evaluation using Seasonal-to-Interannual Forecasts and Observational Data: A Focus on Water Resources.

Ocean and Coastal Related:

- U.S. Climate Change Science Program, 2009. Synthesis and Assessment Product 4.1 Coastal Sensitivity to Sea-Level Rise: A Focus on the Mid-Atlantic Region

o U.S. Climate Change Science Program, 2009. Synthesis and Assessment Product 4.2 Thresholds of Climate Change in Ecosystems
o Culver, M.E., J. R. Schubel, M.A. Davidson, J. Haines, and K.C. Texeira (editors), 2010. Proceedings from the Sea Level Rise and Inundation Community Workshop, Lansdowne, MD, Dec 3-5, 2009. Sponsored by the National Oceanic and Atmospheric Administration and U.S. Geological Survey
o Glick, P., B.A. Stein, and N.A. Edelson, editors, 2011. Scanning the Conservation Horizon: A Guide to Climate Change Vulnerability Assessment. National Wildlife Federation, Washington, D.C.
o National Oceanic and Atmospheric Administration (NOAA), 2010. Adapting to Climate Change: A Planning Guide for State Coastal Managers. NOAA Office of Ocean and Coastal Resource Management http://coastalmanagement.noaa.gov/climate/adaptation.html