

**Maine's Sustainability Solutions Initiative
Integration Project Grants
Request for Proposals**

Maine's Sustainability Solutions Initiative (SSI) invites proposals for Year 2 NSF EPSCoR funding for research teams focused on integrative activities. Approximately \$350,000 is available for allocation. This request serves as the primary vehicle for distribution of Year 2 integration research funds.

Critical Dates and Requirements:

Pre-proposal due: July 22, 2010

Pre-proposal feedback notification: August 5, 2010

Submission of pre-proposals are required as part of the proposal process.

Proposal due: September 16, 2010

Notification: October 15, 2010

Project start date: November 1, 2010

Budget Ranges:

1. Integrative SES Projects (\$80,000-\$100,000; up to 3 awards)

2. Other Integrative Projects (\$20,000-\$50,000; up to 4 awards)

Duration of Funding:

This request covers funding to be spent from November 1, 2010 to December 31, 2011.

Background:

The mission of Maine's Sustainability Solutions Initiative is to transform Maine's capacity for addressing scientific challenges of sustainability in ways that directly benefit Maine and other regions. Central to this transformation is a focus on problem-driven research that strives to identify and implement solutions. The portfolio of projects supported in Year 1 and Year 2 are consistent with this overarching mission and the scientific goals of SSI. This integration request is responsive to the feedback of our Scientific Advisory Board and strives to advance our progress in achieving two core SSI scientific goals outlined in the original proposal to the National Science Foundation:

- To create a center of excellence, the Center for Sustainability Science, that focuses on the coupled dynamics of social-ecological systems (SES), connections between knowledge and action, and the identification and implementation of sustainability solutions.
- To support collaborative research projects that link together to form a broad-based sustainability science experiment.

This request for proposals aims to support **integrative research activities** that create synergies across the current portfolio of projects—synergies arising from activities that connect projects, fill gaps, and/or compare and contrast multiple projects. **Outputs** (i.e., information or products that directly result from the project such as publications, presentations, grant proposals, decision tools, workshops, methodologies and technologies) and **outcomes** (i.e., effects and changes resulting from the outputs such as new knowledge, expanded research capacity, changes in behavior, changes in communication systems, new

education and training) from these activities will advance our sustainability science experiment.

SSI Integration Priorities:

Funds will be available in two categories: Integrative SES Research and Other Integrative Activities.

All projects must be:

- Maine-based;
- capable of harnessing the research advanced by the current project portfolio;
- sustainability solutions-oriented;
- consistent with the theme of landscape change.

Priority will be given to **Integrative SES Research Projects** that:

- pursue comprehensive approaches with active linkages between social-ecological systems (SES) and Knowledge-Action (K-A) research (including the role of boundary management *sensu* Cash *et al.* 2003, PNAS 100:8086-8091);
- support modeling and analyses of interactions among the research arenas (urbanization, forest ecosystem management, and climate change);
- aim to support an application for external funding (e.g., NSF Dynamics of Coupled Natural Human Systems); and
- enhance the current SSI research portfolio by extending the capacity for cross-project comparisons and/or synthesizing discoveries across multiple projects in the research portfolio.

Priority will be given to **Other Integrative Activities** that contribute to the overarching sustainability science experiment by achieving one or more of the following:

- developing integrative decision or research communication tools applicable to multiple research projects;
- filling computational or data management systems gaps in an integrative fashion to advance multiple research projects;
- producing an inventory of sustainability science needs to place the research portfolio in context;
- developing metrics and indicators to measure progress toward and away from sustainability, through an explicit consideration of the nonlinearities, system thresholds, and emergent states stemming from a collective consideration of biophysical and social phenomena;
- strengthening connections between SSI research and the Sustainability Solutions Partners in ways that produce greater statewide integration and increase Maine's R&D capacity and competitiveness.

These priority areas were selected based on feedback from the Science Advisory Board and the objectives of our original NSF proposal. Submissions are not restricted to these activities; however, the review process will give preference to activities more closely aligned with these priority areas.

Review Process:

Decisions will be based on a review process that ranks projects on their intellectual merit, broader impacts, and consistency with the established priority areas listed above. The review team will rank pre-proposals and final proposals to determine the appropriate proposal mix and ultimate funding levels.

Review Criteria:

Applications will be ranked on their intellectual merit, broader impacts, and consistency with the priority areas listed above.

- Intellectual Merit
 - How well conceived and organized is the proposed research activity? How does it contribute to our over-arching sustainability science experiment?
 - To what extent is the research program representative of, and generalizable to, a broader class of problems?
 - How well qualified and prepared is the team to conduct the research?
 - How creative and original is the proposed activity?
- Broader Impacts
 - How does the proposed activity address sustainability? How well can the activity be explained in the context of the sustainability Venn diagram (below)?



- How well does the proposed activity enhance the salience, credibility and legitimacy of the project portfolio?
 - How will the proposed activity support a place-based sustainability solution?
 - Are there plans to apply for external funding to grow the research program?
- Consistency with integration priority areas
 - How consistent is the proposed research program with the integrative scientific priorities listed above (see p. 2)?

Pre-proposal rationale:

This request for pre-proposals is designed to provide applicants with early feedback to help: 1) assess the goodness of fit between the proposal's focus and the integrative goals of this RFP; and 2) prepare more effective full proposals. We anticipate being able to fund only a very few projects that directly address these challenging integration goals. Thus, we want to minimize the chance that applicants make a major investment in developing full proposals that have a low probability of being funded.

Pre-proposal instructions:**Length, Font, and Spacing**

Maximum length - 5 pages (not including cover page and references).

Prepare proposals using at least 11-point font and 1.5-line spacing.

Format

Pre-proposals must include a cover page, project abstract, project description, and budget overview.

Cover Page

Lead Investigator(s) (Name and Dept):

Other Team Members (Names and Depts.):

Title of Project:

Type of Project: SES Integrative Research Activity or Other Integrative Research Activity

General Level of Funding Requested: \$

Project Abstract (150-300 words)**Project Description**

Succinctly describe the project's research goals, activities designed to attain the goals, and proposed outputs/outcomes. Be sure to address how the research will align with the priority scientific areas and intellectual merit and broader impacts review criteria. Please use the following outline to organize your proposal:

1. What are the specific aims of your research?
2. How will these aims be achieved?
3. How will the achievement of these aims advance the integrative priorities detailed on page 2?
4. What are the project's outputs and outcomes, and how do they contribute to SSI integration?

Budget Overview

Include a one-paragraph (about 300 words) budget overview. Estimate the total funding request and succinctly describe how these funds will be used. Use major funding categories to simplify this overview (e.g., faculty support; student support; travel; supplies). Funding support for students is required for all proposals.

Submission

Pre-proposals should be sent as MS Word compatible email attachments to ssi@maine.edu by 11 PM on July 22, 2010.

If you have any questions about the RFP, contact Ruth Hallsworth at 581-3196 or hallsworth@maine.edu.

Full Proposal Instructions:

Length, font, and spacing

Maximum proposal length (not including cover page, budget, budget justification, and project personnel) by project type: SES Integrative Research (8 pages) and Other Integrative Research (5 pages).

Prepare proposals using at least 11-point font and 1.5-line spacing.

Format

Full proposals must include a cover page, project narrative, and project budget.

Cover Page

Lead Investigator(s) (Name and Dept):

Other Team Members (Names and Depts.):

Title of Project:

Type of Project: SES Integrative Research or Other Integrative Research Activity

Level of Funding Requested: \$

Project Narrative

Describe the project's research goals, activities designed to attain the goals, and proposed outputs/outcomes. Be sure to address how the research will align with the priority scientific areas and intellectual merit and broader impacts review criteria. Please use the following outline to organize your proposal:

1. What are the specific aims of your research?
2. How will these aims be achieved?
3. How will the achievement of these aims advance the integrative priorities detailed on page 2?
4. What are the projects outputs and outcomes, and how do they contribute to SSI integration?

Project Budget

Follow the budget format outlined on the following page and include a detailed budget justification. The budget justification should include clarification of the roles of all project personnel. Funding support for students is required for all proposals.

Funds may be requested for faculty, short-term students/technicians, and supplies and equipment necessary for undertaking the research, and relevant travel.

Submission

Proposals should be sent as MS Word compatible attachments to ssi@maine.edu by 11 PM on September 16, 2010. If you have any questions about the RFP, contact Ruth Hallsworth at 581-3196 or hallsworth@maine.edu.

Budget Format

Acct No.	Category	Proposed Budget
50010	Faculty Salaries - summer salary	
50100	Faculty Salaries - release time	
51100	Professional Salary	
51012	Non-Faculty Temp	
52000	Wages - Classified Regular	
52012	Wages - Classified Temp (.75/hr fee)	
53300	Student - Other (undergrad or grad hired as regular student employee)	
53601	Student - Graduate Assistant	
54113	Student Health - Graduate Assistant	
54800	Employee Benefits-reg @ 47.6%	
54800	Employee Benefits-temp @ 8.4%	
55300	Graduate Assistant Tuition	
60002	Consultant Services (indep. contr.)	
60006	Non-Employee Travel	
60100	Professional Services (organ/bus)	
60200	Participant Costs	
60250	Subcontracts <=\$25,000	
60302	Conference & Registration Fees	
60400	Postage & Delivery	
60600	Printing & copying	
60800	Rentals & Leasing	
60900	Publications	
60904	Subscriptions	
61000	Supplies & Materials	
61008	Interdept. Service & Sales	
61400	In-State Travel	
61500	Out-Of-State Travel	
62000	Capital Equipment <\$5,000 (includes software)	
62500	Capital Equipment >\$5,000 (includes software)	
64000	Telephone & Communication	
	TOTAL DIRECT	