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**HORTICULTURE  
INNOVATION LAB**

**UC DAVIS**  
UNIVERSITY OF CALIFORNIA

## Feed the Future Innovation Lab For Collaborative Research on Horticulture (Horticulture Innovation Lab)

### **Request for Trellis Fund Project Technical Proposals**

**NOTE:** The 2014-2015 Trellis Fund consists of **two possible** funding tracks: **Technical Proposals** and **Project Development Concept Notes**. The Technical Proposals are the same type of project proposals from past Trellis years that provide organizations with funding and match them with a US university graduate student to assist with implementing the project. For the new Project Development Concept Notes, organizations outline a horticulture-related problem or challenge faced in their region about which they would like to develop a proposal. Successful applicants will be matched with a graduate student who will work with them to develop a full Technical Proposal to submit for project funding to address the issue.

If you are submitting a Project Development Concept Note, visit <http://horticulture.ucdavis.edu/main/trellis.html> to download the RFP with application submission instructions.

Date of Release: July 15, 2014

Applications Due: September 15, 2014

Funding decisions: November 1, 2014

Funding Available Starting on: March 1, 2015

Project Completed by: December 31, 2015

*Funding available contingent on funding by USAID*

**Horticulture Innovation Lab (Formerly Horticulture CRSP)**

**Department of Plant Sciences**

**University of California, Davis**

**Davis, CA 95616**

**TEL: (530) 752-3522**

**FAX: (530) 752-7182**

**E-Mail: Namho Kim, [nhkim@ucdavis.edu](mailto:nhkim@ucdavis.edu)**

**Kelsey Barale, [kjbarale@ucdavis.edu](mailto:kjbarale@ucdavis.edu)**

**Website: [horticulture.ucdavis.edu](http://horticulture.ucdavis.edu)**

**Sponsored by the United States Agency for International Development (USAID) and participating US and host country institutions around the world.**

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## **INTRODUCTION**

The Horticulture Innovation Lab (formerly the Horticulture CRSP) is excited to announce another year of funding horticultural development organizations through the Trellis Fund. The goal of the Horticulture Innovation Lab Trellis Fund is to link graduate students in the United States to small-scale agricultural organizations in eligible developing countries through a unique funding structure. The Trellis Fund will enable the host organizations to conduct adaptive research and extend horticultural information to local farmers, as well as build the capacity of graduate students in the United States and host countries. Proposals can address horticultural production (including irrigation and fertilization), pest management, postharvest, nutrition or marketing problems that local farmers face. Proposals can also address related social and economic issues.

The host organization will complete and submit a proposal that includes the type of expertise they seek in a US graduate student, as well as project goals, activities and gender equity programs. Proposed projects may be stand-alone interventions or part of broader project. Upon selection, the Horticulture Innovation Lab will match the proposal with a US graduate student with the needed skillset.

The Trellis Fund will finance up to 10 projects from March 1, 2015 through December 31, 2015. It will support the host organization's farmer outreach program with a \$2,000 direct contract. Per the proposal, the host organization can use the funds to pay for educational materials, demonstration plots, transportation costs, and to provide honoraria to the host organization staff for conducting adaptive research and extending new information to farmers. The Trellis Fund will also provide fellowships to US graduate students to cover their travel expenses to visit the host organization and for corresponding with the host organization via email or Skype. The graduate student will be required to travel to visit the host organization for 1-2 weeks to meet his/her project partners and the client farmers. Whenever possible, Trellis Fund projects should also include a local university student in order to promote cross-cultural partnerships between young professionals.

The Trellis Fund expects the host organization to reach at least 180 farmers, which is an average of 30 farmers per month over a 6-month period between March 1, 2015 and December 31, 2015. At least 90 of the farmers must be women.

The Trellis Fund aims to empower smallholder farmers with new information as well as build long-standing relationships between host organizations and US researchers. The creators of the Trellis Fund believe that small organizations can do amazing work, but they are often excluded from grant opportunities. Thus, the Trellis Fund is focused on small organizations. We invite you to work with us to demonstrate that programs aimed at small organizations can accomplish big impacts.

## **ELIGIBLE COUNTRIES**

ETHIOPIA	GHANA	GUATEMALA	BANGLADESH
KENYA	LIBERIA	HAITI	CAMBODIA
RWANDA	MALI	HONDURAS	NEPAL
MALAWI	SENEGAL		TAJIKISTAN
MOZAMBIQUE			
TANZANIA			
UGANDA			
ZAMBIA			

## **ELIGIBILITY**

The Trellis Fund accepts proposals from small organizations in our eligible countries on topics related to fruit and vegetable marketing, production or consumption. Organizations with a staff of 50 or less are preferred. Preference will also be given to first-time applicants.

## **DURATION AND TIMING**

Trellis Fund recipients will be expected to conduct 6-month-long projects. These projects can begin any time after the awards are announced, but must be completed by December 31, 2015.

## **TRAINING**

Host organizations can train local farmers in the manner that they believe will work best. They can use the Trellis Fund money to travel to farmers, to bring farmers to them for farmer field days, or to develop educational materials. Farmers cannot be paid to attend meetings or be reimbursed for travel, but the organization can directly pay for their transportation (i.e. hiring a van or bus). Any travel completed in-country with the visiting US student must be budgeted for by the organization as part of the project funding.

## **REQUIREMENTS**

Granted organizations will be responsible for completing their issued contracts, submitting a mid-term report and a final report. They will also be responsible for following through with the monitoring and evaluation plans that they create with their US graduate student.

## **PROPOSAL WRITING INSTRUCTIONS**

Full applications for Trellis Fund awards must contain the following elements:

1. Cover Page: **(1 page maximum)**
  - Project Title
  - Lead organization applying for the award, with number of staff
  - Institutional mailing addresses
  - Names, titles, email addresses, and telephone numbers of project leaders and collaborators
  - Signature and contact information for an authorized official from the Lead Organization
2. Project abstract: **(150 words maximum)**
  - Project summary
  - Targeted country and region or district within country
3. Justification **(300 words maximum)**
  - Statement of the problem facing local farmers that this proposal seeks to address
  - Objectives: The realistic and measurable goals you hope to achieve within the time period of your project (bulleted list, e.g. • Provide postharvest training to 100 farmers)
  - Identify who will be the direct and indirect beneficiaries of this project
  - Approach to addressing the problem
  - Expected Outcomes
4. Graduate Student Engagement **(50% of total review points will be award for this section. Please specifically describe roles of the graduate student in the project) (2 pages maximum)** The U.S. graduate student will be committed to a 1-2 week visit to your organization as well as 100 hours of remote work from the United States.
  - Type of expertise that you seek from the US graduate student (Please consider what is reasonable to expect from a student.)
  - Student's trip to your organization
    - A. Plans for the student's modest accommodation for 1-2 weeks (This cost will be covered by the student's fellowship. Do not include in your budget. *Organizations are responsible for budgeting for student's in-country transportation, including to and from the airport.*)
    - B. Project review and planning activities
    - C. Site visits to clientele farmers
    - D. Other activities

- Plan for student collaboration via email and Skype after visit.
    - A. How often will you communicate with the student?
    - B. Who will communicate with the graduate student?
  - List of assignments (at least 7, but more is better) for the student that will occupy him/her for 100 hours prior to and after the project visit, for example, the development of specific educational materials. Be specific and creative! Also, consider the length of time required to complete each task. These 100 hours should **not** include the student's visit. These are 100 hours of additional labor before or after the visit.
5. Activities and methodology required to accomplish each objective **(2 pages maximum)**
- Provide a detailed plan for how you will train 180 farmers. Projects that do not train 180 farmers are eligible if adequate reason is provided.
  - Will you conduct trainings?
    - A. If so, how many training activities will you conduct?
    - B. Approximately how many farmers will attend each training?
    - C. Will you travel to the farmer's fields or will you bring them to the organization for training?
    - D. Will you have a demonstration plot? If so, what is the approximate size of that plot?
  - How are the farmer groups organized? (i.e. do you work with cooperatives, savings groups, families etc.?)
  - What means of communication will you use to reach farmers (radio, visits, television, etc.)?
  - Who will disseminate information to local farmers?
  - Will you create educational materials? What will they be?
6. Gender – What percentage of farmers reached will be women? How will you determine if women are positively affected by your project? Are there any particular strategies that you will use to reach out to women in your project? (Appendix B) **(300 words maximum)**
7. Monitoring and Evaluation- The US graduate student will work with your organization to help develop a monitoring and evaluation plan for this project. They will be expected to turn this plan in within the first 2 months of your project. You should work together on that plan during the student's visit or over email. Monitoring and evaluation plans will need to include the points listed at the bottom of this page. This activity is a good way for the student to familiarize him/herself with your project and for you to begin your collaboration together.
- Please identify the person in your organization who will work on the monitoring and evaluation plan with the US graduate student?
8. Will you be able to identify a local university student to participate or intern with your project? **(200 words maximum)**
- Do you have a particular student in mind?
  - How will this local student be able to contribute to your project?
  - If your organization is unable to work with a local university student, please explain.
9. Statement of institutional experience in the proposed region and working with local farmers **(1/2 page maximum)**
10. Resumes for project leaders and key project personnel **(1 page maximum per resume)**
11. Budget and activity timeline, using the Horticulture Innovation Lab Interactive Excel sheet ([http://horticulture.ucdavis.edu/main/trellis/2013\\_Budget\\_Activity\\_Template.xls](http://horticulture.ucdavis.edu/main/trellis/2013_Budget_Activity_Template.xls))

## SUBMISSION

Trellis Fund Applications are to be submitted electronically in PDF format by email to [kjbarale@ucdavis.edu](mailto:kjbarale@ucdavis.edu). Budgets must be provided as an Excel spreadsheet using the Horticulture Innovation Lab budget form ([http://horticulture.ucdavis.edu/main/trellis/2013\\_Budget\\_Activity\\_Template.xls](http://horticulture.ucdavis.edu/main/trellis/2013_Budget_Activity_Template.xls))

Document Layout:

Paper size: standard 8.5" x 11"  
 Margins: 1 inch on all sides

Line spacing: single spaced  
 Minimum font size: 12 point of a standard font

## **DUE DATE**

All applications must be received by the close of business September 15, 2014 (5:00 p.m. Pacific Time, USA). Applications received after the deadline will not be considered for funding.

## **EVALUATION PROCESS & CRITERIA**

Impartial reviewers from the Horticulture Innovation Lab Management Entity and Trellis Fund coordinators will evaluate all applications. The primary criteria for evaluating proposals are:

50 Points - Graduate Student Engagement: How well would the proposed project engage the US graduate student and a university student in the eligible country?

50 Points - Project Impact: How well will the proposed project empower horticultural farmers with new information? How relevant is the adaptive research to local growers? Do the project activities have a viable plan to reach at least 180 farmers? Are at least half of the participants women? How well is the gender of stakeholders taken into account? How qualified is the host organization team to conduct the project? Does the host organization have sufficient experience working with local farmers or the relevant postharvest/marketing stakeholders?

## **MONITORING AND EVALUATION**

Each organization will be responsible for carrying out the monitoring and evaluation plan that they design with their US graduate student. However, each project will also be responsible for answering the following questions for Horticulture Innovation Lab in their final report:

- a. How many farmers were directly engaged and provided with new horticultural information as a result of this project?
- b. How was the extension information delivered?
- c. What practices did the farmers adopt?
- d. What were the barriers to adopting those practices that were not adopted?

## **ADDITIONAL INFORMATION**

For clarifications and questions, please e-mail Namho Kim at [nhkim@ucdavis.edu](mailto:nhkim@ucdavis.edu) or Kelsey Barale at [kjbarale@ucdavis.edu](mailto:kjbarale@ucdavis.edu). See our website for more information about the Horticulture Innovation Lab Trellis Fund and past Trellis projects <http://horticulture.ucdavis.edu/main/trellis.html>.

## **APPENDIX A: BUDGET AND ACTIVITY TIMELINE**

### **Instructions**

The goal of this program is to fund adaptive research and extension. We expect to fund research and extension-related costs. Horticulture Innovation Lab will issue contracts as fixed-price agreements. The payment of the contract will occur in two installments, dependent upon successful completion of the project's activities. The activity timeline will be used to determine if the organization is ready to receive their second installment of funding.

Recipients are encouraged to cost-share on Horticulture Innovation Lab project expenses as evidence of institutional commitment and support for the program; however, this is not mandatory.

Do not include the US graduate student's accommodation costs in your budget. He/she will use his/her fellowship for the cost of air travel and modest accommodation. The student will have a limited budget and can only afford to stay in reasonably priced accommodations or with a host family. Please **do** include the cost of in-country travel that you will do with the US graduate student during his/her visit.

The Trellis Fund cannot finance travel costs of government employees in countries where it is prohibited by USAID's in-country mission. Trellis organizations must possess an institutional bank account to be funded.

Use the Excel budget form that accompanies this document.

([http://horticulture.ucdavis.edu/main/trellis/2013\\_Budget\\_Activity\\_Template.xls](http://horticulture.ucdavis.edu/main/trellis/2013_Budget_Activity_Template.xls))

## **APPENDIX B: GENDER EQUITY STRATEGY**

### **MINIMUM USAID GENDER GUIDELINES:**

1. USAID guidelines on gender specify that ALL projects should be gender sensitive.
2. USAID guidelines ask everyone to do their utmost to include women as at least 50% of the beneficiaries in ALL areas of your project. This means that creativity should be employed to get around constraints to meeting this goal and, if you cannot do so, you must provide justification as to why.

### **PRINCIPLES:**

1. Gender refers to social characteristics of men and women, such as their different roles within the family or in farming and the types of behavior expected of them. These issues speak to the ability of women and men in specific communities to carry out certain farming activities, to be able to travel outside their immediate area for training and meetings, to be sufficiently educated to participate in training, and so on.
2. Gender stereotypes will vary among cultural groups. It is necessary to be aware of how they function in each particular cultural group because they will affect constraints for both sexes. For instance, if you want to add more weeding of a man's crop and weeding is a woman's task in that culture, you may not get your practice adopted. Include in your proposal an assessment of how you will deal with gender constraints or stereotypes.
3. Gender issues also include who farms which crops and/or which practices they do in farming. How do men and women in the region use natural resources differently (water, firewood, etc.)? For instance, a woman may be unable to participate in formal employment or her restraints in mobility may result in her selling natural resources, such as firewood, to get cash.
4. Gender issues also exist in regard to scientists, extension agents, and students. Issues include the number of men and women participating in these roles and the differing perspectives about men and women that come from these roles.
5. Consider that one of the Horticulture Innovation Lab goals is to sensitize host country stakeholders at all levels - farmers, extension agents, local and national government officials, researchers, university faculty, etc. - to gender issues.

## **ADDRESSING GENDER ISSUES IN YOUR PROPOSAL**

### **General:**

1. Review your lists of farmers and consider the gender issues with each group
2. In writing your proposal, make the sex of your participants explicit
3. Go beyond the numbers to consider gender stereotypes that might hamper participation of one group or other and how you might creatively develop solutions.

### **Farm/Enterprise level:**

Specify the gender division of labor for project activities in your target area. Make it clear in your proposal what these are and the implications for your proposal.

1. Identify constraints on women - mobility, resources, etc. - so you can include ways of dealing with this in your proposal.
2. Clarify whether you will be working with men or women producers, marketers, and other stakeholders, or both. If not with both, please explain why not.
3. 50% of the farmers trained must be women and they should be reached in an appropriate and meaningful way.

### **Extension level:**

1. Aim at working with a minimum of 50% women. If necessary, figure out how to find relevant women in or near the communities who might be able to work as assistant extension agents.
2. At the community level, take into account how men and women are organized into associations, how group activities are structured, and what tasks provide for group communication, such as doing laundry by the stream, or drinking tea under the shade tree.

## ***HORTICULTURE INNOVATION LAB GOALS, OBJECTIVES, AND STRATEGIES***

The Horticulture Innovation Lab (formerly the Horticulture CRSP) builds international partnerships for fruit and vegetable research that improves livelihoods in developing countries. Horticulture Innovation Lab has supported collaborations with more than 18 universities and 200 organizations on projects for smallholder growers around the world. Each of our non-Trellis projects includes partners from a US university and from an organization in a developing country, particularly from those countries in Africa, Latin America and Asia prioritized by USAID.

### Objectives

The Horticulture Innovation Lab objectives are:

1. To build local scientific and technical capacity,
2. To apply research findings and technical knowledge to increase small producers' participation in markets, and
3. To facilitate the development of policies that improve local horticultural trade and export capacity.

### Major themes

The Trellis Fund Projects selected for funding by the Horticulture Innovation Lab will address access to information and research capacity, technological innovation, nutrition and gender equity.

*Commitment to horticultural value chain research. We will support research that tackles knowledge gaps along the entire value chain for important horticultural products. Our research will provide much needed baseline information, and information about barriers to adopting new technologies or crops. We will continue to support adaptive research and research that enables farmers to have greater access to markets through innovative technology.*

*Commitment to innovation and scaling. We will support "disruptive" or "leapfrog" technologies that provide advanced tools, in an appropriate form, to stimulate and facilitate horticultural development worldwide. We will support projects that address the constraints to horticultural production through modern research practices. We will work closely with USAID in-country missions and local and regional partners to scale technologies or techniques developed by our collaborators.*

*Commitment to capacity building. We will build capacity in worldwide horticultural research and production. We will build the capacity of institutions, farmers, researchers, intermediaries (extensionists and others), and students. We will*

*support projects that improve horticulture curricula, enable horticultural researchers to excel (including the ability to receive grants, publish papers and collect and analyze data), build institutions' ability to manage research projects (including support for lab equipment), improve horticulture information distribution and quality for intermediaries, and train students (continuing the Trellis model for US students and using novel sandwich programs for international students). We will build relationships with new and continuing US university partners and foster relationships with developing country researchers. We will maintain a relationship with students that are trained in our program using LinkedIn.*

*Commitment to nutrition sensitive horticulture. We will support research that improves understanding of nutritious crops from production to consumption. This includes furthering understanding of horticulture for nutrition interventions and their impact on diet diversity. Research projects will be nutrition sensitive and incorporate appropriate nutrition objectives and benchmarks throughout the project term.*

*Commitment to empowering women and the most vulnerable. Our research and interventions will be targeted to empower women and vulnerable people. We will conduct baseline studies within all of our projects that increase knowledge of women and vulnerable groups. We will design technologies and interventions that specifically target these groups. Trainings and research projects will be equitable. Our project teams will be trained on empowerment and responsive project planning.*

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