Issue Date:	March 11, 2021
Deadline for Questions:	March 25, 2021, 04:00 PM Washington, D.C. Time
Closing Date:	May 11, 2021
Closing Time:	04:00 PM Washington, D.C. Time

Subject: Notice of Funding Opportunity Number: 7200AA21RFA00011

Program Title: Feed the Future Innovation Lab for Current and Emerging Threats to Crops
Catalog of Federal Domestic Assistance (CFDA) Number: 98.001

To Whom It May Concern:

The United States Agency for International Development (USAID) is seeking applications for a Leader with Associates Cooperative Agreement from qualified entities to implement the Feed the Future Innovation Lab for Current and Emerging Threats in Crops. Eligibility for this award is restricted to U.S. colleges and universities as defined under Section 296(d) of Title XII of the FAA. See Section C.I of this NOFO for eligibility requirements.

Subject to the availability of funds, an award will be made to the responsible applicant whose application best meets the objectives of this funding opportunity and the selection criteria contained herein. The total estimated program amount is a total of $39 million. This amount includes $30 million for the Current and Emerging Threats in Crops Innovation Lab Leader Award over five years. This Leader Award includes $15 million in core funding from the Bureau for Resilience and Food Security (RFS) and contingent upon funding, up to $15 million for buy-ins to the Leader Award from USAID Missions, Regional Bureaus, and other Offices. Separately, $9 million may be issued in the form of Associate Awards. While one award is anticipated as a result of this notice of funding opportunity (NOFO), USAID reserves the right to fund any or none of the applications submitted.

For the purposes of this NOFO the term “Grant” is synonymous with “Cooperative Agreement”; “Grantee” is synonymous with “Recipient”; and “Grant Officer” is synonymous with “Agreement Officer”.

To be eligible for award, the applicant must provide all information as required in this NOFO and meet eligibility standards in Section C of this NOFO. This funding opportunity is posted on www.grants.gov and may be amended. It is the responsibility of the applicant to regularly check the website to ensure they have the latest information pertaining to this notice of funding opportunity and to ensure that the NOFO has been received from the internet in its entirety. USAID bears no responsibility for data errors resulting from transmission or conversion

process. If you have difficulty registering on www.grants.gov or accessing the NOFO, please contact the Grants.gov Helpdesk at 1-800-518-4726 or via email at support@grants.gov for technical assistance.

USAID may not award to an applicant unless the applicant has complied with all applicable unique entity identifier and System for Award Management (SAM) requirements detailed in Section D.IV.f. The registration process may take many weeks to complete. Therefore, applicants are encouraged to begin registration early in the process.

Please send any questions regarding this announcement to Leah Leach at lleach@usaid.gov. The deadline for questions is shown above. Responses to questions received prior to the deadline will be furnished to all potential applicants through an amendment to this notice posted to www.grants.gov.

Issuance of this notice of funding opportunity does not constitute an award commitment on the part of the Government nor does it commit the Government to pay for any costs incurred in preparation or submission of comments/suggestions or an application. Applications are submitted at the risk of the applicant. All preparation and submission costs are at the applicant's expense.

Thank you for your interest in USAID programs.

Sincerely,

Kelly Miskowski
Digitally signed by Kelly Miskowski
Date: 2021.03.05 12:28:57 -05'00'

Kelly Miskowski
Agreement Officer

ABBREVIATIONS AND ACRONYMS

ADS - Automated Directives System
AIS - Agricultural Innovation System
AO - Agreement Officer
AOR - Agreement Officer's Representative
BEO - Bureau Environmental Officer
CC - Cross-cutting
CETC - Current and Emerging Threats to Crops
CFR - Code and Federal Regulations
CGIAR - Consultative Group for International Research
CLA - Collaboration, Learning and Adapting
DDL - Development Data Library
DEC - Development Experience Clearinghouse
DIS - Development Information Solution
DUNS - Data Universal Numbering System
EA - Environmental Assessment
EAC - External Advisory Committee
EMMP - Environmental Mitigation and Monitoring Plan
ER - Environmental Review
ERF - Environmental Review Form
FTF - Feed the Future
GFSA - Global Food Security Act
GFSS - Global Food Security Strategy
IEE - Initial Environmental Examination
IL - Innovation Lab
IR - Intermediate Result
LGBTQI - lesbian, gay, bisexual, transgender, queer, and intersex
LOE - Level of Effort
LWA - Leader with Associates
M&M - Mitigation and Monitoring
ME - Management Entity
MEL - Monitoring, Evaluation and Learning
MEO - Mission Environmental Officer
MSI - Minority Serving Institution
NARO - National Agricultural Research Organization
NICRA - Negotiated Indirect Cost Rate Agreement
NOFO - Notice of Funding Opportunity
PERSUAP - Pesticide Evaluation Report and Safer Use Action Plan
PI - Principal Investigator
RCE - Request for Categorical Exclusion
RFA - Request for Application
RFS - [Bureau for] Resilience and Food Security
SAM - System for Award Management
SEP - Subawardee Engagement Plan
USAID - United States Agency for International Development
USG - United States Government

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SECTION A: PROGRAM DESCRIPTION

A.I. Authority

This funding opportunity is authorized under the Foreign Assistance Act (FAA) of 1961, as amended. The resulting award will be subject to 2 CFR 200 – Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, and USAID's supplement, 2 CFR 700, as well as the additional requirements found in Section F.

In Section 103 of the Foreign Assistance Act of 1961 (FAA), as amended, Congress recognizes the value of agriculture, rural development, and nutrition assistance…*to alleviate starvation, hunger, and malnutrition; to expand significantly the provision of basic services to rural poor people to enhance their capacity for self-help; and to help create productive farm and off-farm employment in rural areas to provide a more viable economic base and enhance opportunities for improved incomes, living standards, and contributions by rural poor people to the economic and social development of their countries.* Congress further recognizes that agricultural research is necessary to achieve foreign assistance goals and requires that such research carried out under the Act…*shall (1) take account of the special needs of small farmers in the determination of research priorities, (2) include research on the interrelationships among technology, institutions, and economic, social, environmental, and cultural factors affecting small-farm agriculture, and (3) make extensive use of field testing to adapt basic research to local conditions* [Sec. 103A.(3)]. Finally, Congress provides that *special emphasis shall be placed on disseminating research results to the farms on which they can be put to use, and especially on institutional and other arrangements needed to assure that small farmers have effective access to both new and existing improved technology.*

Congress granted USAID the authority to direct and fund programs of international agriculture research under the FAA. Now referred to as Title XII Legislation (FAA Sect. 296a), USAID is directed to provide support to benefit both developing countries and the U.S. to mobilize the capacities of U.S. universities and public and private partners of universities for: 1) Global research on problems affecting food, agriculture, forestry, fisheries; and 2) Improved human capacity and institutional resource development for global application of agriculture and related environmental sciences. Minority Serving Institutions[1] are encouraged to apply.

In 2016, the U.S. Government passed the Global Food Security Act[2] (GFSA) into law demonstrating the continued importance of American leadership in international food and nutrition security efforts, including agriculture research and development.

[1] List of Minority Serving Institutions, January 2020, https://cmsi.gse.rutgers.edu/sites/default/files/MSI%20List.pdf

[2] 1 Pub. L. 114-195, July 20, 2016, 130 Stat. 675 (https://www.congress.gov/114/plaws/publ195/PLAW-114publ195.pdf; 22 U.S.C., Chapter 100 (http://uscode.house.gov/view.xhtml?path=/prelim@title22/chapter100&edition=prelim)

A.II The Feed the Future Initiative, Global Food Security Act, and Research for Development

Started in 2010, the Feed the Future initiative[3] has worked to sustainably reduce global poverty, hunger, and malnutrition by increasing agricultural productivity and incomes with an emphasis on improving nutrition and reducing child stunting. At the same time, many of the innovations and impacts of Feed the Future position partner countries to meet growing food needs in the decades ahead. In 2016, the Global Food Security Act (GFSA) became law, institutionalizing many of the successful approaches of Feed the Future in terms of reducing extreme poverty and stunting while generating resilience and inclusive economic growth. Reauthorized in 2018, the GFSA guides continued implementation of Feed the Future through integration of science and technology, public, private and non-governmental organizations, both in the U.S. and globally, to co-develop and scale improved technologies, resource management practices and policies in partner countries.

In response to the new law, in 2016 USAID submitted to Congress the Global Food Security Strategy (GFSS)[4], a new whole-of-government strategy for global food and nutritional security, on behalf of the 11 U.S. Government agencies responsible for carrying out the GFSA. The GFSS details how to achieve the goal of the GFSA through the primary strategy objectives of inclusive and sustainable agriculture-led economic growth (SO1), strengthened resilience among people and systems (SO2), and a well-nourished population (SO3). Technical guidance as to how the U.S. Government approaches global food and nutrition security in its development activities can be found online at https://www.feedthefuture.gov/.

To meet the challenge of producing more and nutritious food with fewer natural resources while also adapting to increasingly erratic weather patterns due to climate change and market price swings, the international community will need to fully harness the benefits of agricultural science, innovation, and technology.[5] The U.S. Government's Global Food Security Research Strategy[6] directs research investments toward three major themes:

1. Technologies and practices that advance the productivity frontier to drive income growth, improve diets, and promote natural resource conservation;
2. Technologies and practices that reduce, manage and mitigate risk to support resilient, prosperous, well-nourished individuals, households, and communities; and
3. Improved knowledge of how to achieve human outcomes: generating evidence on how to sustainably and equitably improve economic opportunity, nutrition and gender equity for low-income, food insecure people.

Purpose-driven "research for development" is neither an abstract quest for fundamental

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[3] Feed the Future, http://www.feedthefuture.gov/

[4] Global Food Security Strategy, https://www.feedthefuture.gov/resource/u-s-government-global-food-security-strategy-fy-2017-2021/

[5] Technologies in the context of this solicitation refer to both agricultural and digital technologies. To learn more about USAID's approach to digital technologies, refer to USAID's Digital Strategy, https://www.usaid.gov/usaid-digital-strategy

[6] Global Food Security Research Strategy, https://www.feedthefuture.gov/the-u-s-governments-global-food-security-research-strategy/

knowledge and improvement of scientific theories, nor is it straightforward delivery of goods and services associated with development work. Rather, research for development is a unique enterprise requiring rigor, discipline, awareness of local context, and building of relationships associated with global development. Research for development generates knowledge and new or improved technologies and practices, but needs to be linked to partners and activities that can successfully transfer information and innovation into the hands of stakeholders, where impacts may be achieved. The agricultural research investments supported by USAID are designed by considering "impact pathways," which map connections between research outputs and development actors and outcomes. This design is not only critical for success, it is also mandated by Congress. These impact pathways are not linear and are best considered via a systems approach. Agricultural transformation requires consideration of interrelationships and interaction among soil fertility, agronomy, genetics, animal science, water management, the role of private sector and market access, policies, nutrition, local capacity and commitment, and gender, youth and inclusion. An approach that USAID is taking to support purpose-driven research for development is through the adoption of a Product Life Cycle Framework, which is an industry standard, to ensure that clear market-demand driven products are generated from research and have clear pathways for scaling and commercialization.

Centrally-funded research programs link national, regional, and global research partners to identify, develop, and adapt promising methodologies and technologies for local farming, production and food systems. In particular, they focus on productivity gains and risk reduction to intensify and diversify major production systems where the poor and undernourished are concentrated. As part of these programs, the USAID Bureau for Resilience and Food Security (RFS) manages a portfolio of research activities collectively known as the Feed the Future Innovation Labs[7] (FTF ILs). Led by U.S. Title XII universities and intended to be collaborative agricultural research programs between U.S. universities, host-country universities and/or national agriculture research organizations (NAROs), the FTF ILs are an integral component of USAID's implementation of the GFSS through their global thought leadership and implementation of research and local capacity development. FTF ILs are further designed to meet Congress' intention to bring benefits to both U.S. and developing country stakeholders. Through the establishment of strong relationships with in-country NAROs, U.S. researchers gain access to international knowledge and expertise, greater awareness of the global investment landscape, and an appreciation of the challenges and technologies used in those countries. The Feed the Future Innovation Lab for Current and Emerging Threats to Crops (Current and Emerging Threats to Crops Innovation Lab or CETC Innovation Lab) will be part of this portfolio of FTF ILs.

A.III Background and Introduction of the Feed the Future Innovation Lab for Current and Emerging Threats to Crops

The Challenge

Crop production is a mainstay for hundreds of millions of smallholder farmers across the tropics and subtropics and an essential element of food security and sustainable food systems.

[7] Feed the Future Innovation Labs, https://www.feedthefuture.gov/feed-the-future-innovation-labs/

Farm families depending on crop production face a range of biotic challenges for which effective, safe and environmentally sound management and control strategies remain elusive. In some cases, existing threats to production pose recurrent problems; yet sound control methods are lacking. Increasingly, difficulties arise as emergent threats arrive through invasive pathways bringing new pests, diseases, or weeds. Evolution of new pathogen races, insect biotypes, or other pests pose challenges to agriculture everywhere; food-insecure, developing regions are no exception. Emergence of new threats has accelerated through international trade, human mobility, and a changing climate—leaving countries, regions, and farmers vulnerable to impacts and often lacking necessary scientific tools to develop scalable, research-generated solutions.

Due to the impact of crop threats, low-income countries have the potential to suffer greater relative costs from pests and diseases because of their disproportionate dependence on agriculture. Left unchecked, pests, diseases and weeds can threaten food production and jeopardize food security and livelihoods for millions of people. While much attention has been paid to the impact of pest damage on global staples (e.g., wheat, rice, maize), impacts on household level food security across a suite of crops important for own consumption, nutrition and livelihoods may be understudied or underestimated.

Agriculture, food security and resilience in vulnerable regions have long been under threat, and in the 10 years thus far of FTF, several invasive pests, pathogens, and weeds as well as new races or combinations of pathogens have caused significant negative impacts. These emergent issues are combined with many well-known and serious biotic threats to crops important to food security that cause recurrent losses and lack suitable (e.g., safe, effective, affordable) control approaches.

The challenge of biotic threats is exacerbated by the fact that they include “emerging” pests and diseases—so while some are known, others are not. The target is both moving and changing, and predicting their appearance or arrival is challenging due to spatial and temporal uncertainty. Furthermore, pests and pathogens are continuously evolving with their hosts. Weeds adapt to control strategies. Insects and pathogens develop resistance to chemical or plant host resistance control. These inherent challenges can inform strategic approaches to research to generate new approaches that strengthen long-term response and management.

USAID's implementation of research under the GFSA requires that we marshal the best and most appropriate science and research to achieve the objectives of the law and reflects its authorization of FTF ILs as important partners. The Global Food Security Research Strategy envisions sustainable agriculture and food systems that increase productivity and incomes, are resilient to stresses, and drive human outcomes related to improved nutrition, gender equity and economic opportunity for low-income groups. Success in advancing these objectives depends on management and control of current and emerging threats so that the crops the world’s poor depend on are not lost to pests and diseases.

Innovation Lab Proposed Approach

USAID has an established track record of leveraging science, technology, and innovation in response to current and emerging biotic threats to both crops and livestock. Notable successes include wheat stem rust resistance, rice brown planthopper control, bovine and ovine rinderpest vaccines, and control of cassava mealybug and green mite, papaya mealybug, mango fruit fly and other biotic threats. In some instances, control methods from USAID-supported research prevented catastrophic losses that likely would have required massive humanitarian assistance. U.S. farmers have also benefited through learning derived from USAID research investments. Most recently, the Integrated Pest Management Innovation Lab has helped position U.S. agriculture to manage tomato leaf miner (*Tuta absoluta*)[8] if/when it reaches U.S. shores.

Research partnerships on current and emerging threats can contribute to timely reduction of negative impacts through rapid application of knowledge and expertise to problems at an early stage. Timely analysis and attention from USAID's research partners can support USAID Missions and other development partners to get ahead of problems in the contexts in which they and their partners work. These connections can also position the Innovation Lab to consider the implications of outbreaks in their own program planning, while also feeding into networks that span NAROs, international agricultural research centers, the Centre for Agriculture and Bioscience International, the Food and Agriculture Organization, and a range of public and private research organizations as well as the private sector. Thus the CETC Innovation Lab will be well positioned to draw from and share expertise and information to control or otherwise mitigate biotic threats to crops important to global food security.

Effective action on emergent threats depends on collaboration and cooperation of innovation and delivery actors who can, in the face of new challenges, rapidly mobilize and integrate into networks at the national, regional and/or global level. These networks can collect and analyze data, identify food system vulnerabilities, inform monitoring efforts, and consider various intervention strategies and research opportunities. The CETC Innovation Lab can further strengthen these networks by serving as a convener of the wider research community on compelling topics and needs related to biotic threats. An efficient means for doing this would be for the Innovation Lab to sponsor workshops that are held in conjunction with major national and international meetings of relevant professional societies. Such an approach can help strengthen the ties between Innovation Lab researchers, as well as elevate awareness and, potentially, awareness to biotic threats of major crops important to countries and regions where Feed the Future works. Researchers from partner countries would be able to gain broad access to the wider scientific communities associated with relevant professional societies, and the wider membership of the societies would gain greater understanding of how their disciplines and institutions are advancing the goals of the GFSA.

A.IV Program Description

A.IV.a. Program Overview

[8] Invasive Species Modeling for South American Tomato Leafminer and Groundnut Leafminer https://ipmil.cired.vt.edu/our-work/projects/invasive-species-modeling-for-south-american-tomato-leafminer-and-groundnut-leafminer/

The CETC Innovation Lab will function as a five-year Leader with Associates (LWA) Cooperative Agreement, awarded to an eligible U.S. university to develop a global portfolio of evidence-based research for development and local capacity development activities to protect crops from biotic threats. More than one eligible university can share the leadership of the CETC Innovation Lab; however, the award itself can only be issued to one eligible institution. That institution would then issue a subaward to the partner institution for required services. If leadership is to be shared, the Applicant must include a letter of support and commitment from the partner institution that *will not count toward the Application page limit.*

As described in Section B.I, the award's Total Estimated Amount (TEA) allows a maximum program ceiling of up to $39 million structured as follows:

1. A $30 million Leader Award ($15 million in core funding with potential for up to $15 million in buy-ins) to implement the Innovation Lab.
2. The Applicant serves as the Management Entity (ME) of the CETC Innovation Lab. In this capacity, the Awardee's primary responsibility will be to develop, select, and manage a portfolio of research activities on the control, management, surveillance and forecasting of current and emerging biotic threats in food security crops.
3. The Leader Award is intended to support ME costs associated with managing and implementing the portfolio of Innovation Lab activities, with a majority of Leader Award funds to be allocated to subawarded research and associated local capacity development activities. These subawards will likely include a mix of competitively procured activities and limited commissioned (non-competitive) activities.
4. Up to $9 million of potential Associate Awards which are separate awards made noncompetitively by USAID Missions or other Bureaus and Offices to support additional activities within the technical scope of the lead award.

The CETC Innovation Lab will design, lead, and implement an applied research program focused on the control of current and emerging biotic threats to food security crops that the poor depend on. The program will also strengthen local research partners through capacity development while benefiting smallholder farmers and other beneficiaries of USAID assistance. The Innovation Lab will serve as a resource to USAID Missions and their implementing partners in their efforts to overcome critical crop pest, weed and disease constraints facing their national food systems. The Innovation Lab is broadly expected to help recognize, build on and influence impact pathways from crop biotic threat protection research to development outcomes through partnerships with USAID Mission-supported programs, national partners, private companies, community-based organizations, and other donors and their programs.

Ultimately, the CETC Innovation Lab will:

- Support smallholder farmers to **improve production** through research and innovations that provide greater resilience to pests, diseases and weeds.
- **Help farmers increase household income** by reducing the economic burden of pest and disease control and losses to pests, diseases, and weeds through earlier management and control.
- **Mitigate potential negative environmental and climate change consequences** through development and promotion of innovative, safe and effective control models

and methods.
- **Improve household level food security** by reducing losses, allowing more production for consumption or income generation.

- **Reduce risk to incentivize on farm investment**, fostering increased opportunity and resilience.

A.IV.b. Results Framework and Theory of Change

(i) Project Purpose

The ultimate purpose of the CETC Innovation Lab is to mitigate the effects of current and emerging biotic threats to crops of particular importance to food security through a combined research and local capacity development approach that:

- Uses the power of research to enhance preparedness for new threats while contributing to the body of knowledge on new threat identification and control;
- Can quickly convene innovation and delivery actors to build capacity, increase both coverage and speed of threat control mobilization, and contributes to real, scaleable, on the ground, "last mile" solutions adapted to the local context;
- Fills a critical gap: a global dedicated convening effort that engages the public and private sectors to address existing and emergent threats to crops essential to food security and livelihoods, employing workshops to raise awareness, taking advantage of major research societies to strengthen research networks;
- Elevates the visibility of major biotic threats to food security in the global research community, and in conjunction with relevant scientific societies generates greater interest and awareness about actual and potential needs and related research, while also expanding participation and connection between developing country researchers and research institutions and the U.S. and global research community; and
- Serve as locus of expertise for USAID Missions and other FTF partners in assessing crop threats and pests in real time, through access to leading technologies and global expertise so as to advance partner country and associated regional food security and agricultural growth.

The CETC Innovation Lab purpose and approach is designed to reflect the results frameworks of the GFSS. The research outputs are intended to directly contribute to achieving **Objective 1. Inclusive and sustainable agriculture-led economic growth** and **Objective 2. Strengthened resilience among people and systems**. They will also indirectly contribute to achieving **Objective 3. A well-nourished population, especially among women and children.** The research outputs will support the following Intermediate Results (IRs) and Cross-cutting Intermediate Results (CC IRs):

- IR 1 Strengthened inclusive agriculture systems that are productive and profitable
- IR2 Strengthened and expanded access to markets and trade
- IR4 Increased sustainable productivity, particularly through climate-smart approaches
- IR5 Improved proactive risk reduction, mitigation and management
- IR7 Increased consumption of nutritious and safe diets
- CC IR3 Increased gender equality and female empowerment

- CC IR4 Increased youth empowerment and livelihoods
- CC IR6 Improved human, organizational, and systems performance

(ii) Development Theory of Change

If *vulnerable [smallholder] farmers, [men, women, and youth]have agency, equal access to resources, adequate capacity, and accurate and timely information to adopt culturally and ecologically appropriate, effective, sustainable, and affordable means to manage current and emerging threats to crops...*

Then *these producers will be more resilient to recurrent and emerging threats to crops, by reducing losses and investing more, increasing yields and usable production for home consumption and/or sale, improving agricultural productivity and access to acceptable, safer and sufficient food as well as greater opportunities for income generation.*

and

If *the threat to crops is reduced through better understanding, monitoring, information sharing /dissemination, and management of current and emerging pests across global and regional partners…*

Then *resulting gains will help drive investment across the food system and overall food supply will be less constrained, leading to greater overall food availability and affordability.*

A.IV.c. Approach to Ensure Scientific Quality

A.IV.c.1. Areas of Inquiry

In crops, biotic threats fall into three main categories--diseases, weeds, and insects and other pests. Current threats are not limited to invasive species and can include native/naturalized pests and diseases, including new and more virulent races or biotypes. To support portfolio development, Applicants may wish to review the White Paper in Annex 1 which provides background and context for the rationale underlying the development of the CETC IL.

Applicants should craft Areas of Inquiry that lay out a coherent framework of themes and research approaches and take into consideration the following:

- Generating collaborative-research outputs centered around coordinated, ecologically sound pest and disease management strategies and delivery systems, potentially including improved monitoring, surveillance and/or forecasting tools in order to

increase agricultural productivity, resilience[9]; inclusive agriculture-led economic growth[10], and human nutrition[11];

- Strengthen the capacity of host country partners to monitor, predict and manage current and emerging threats to important food security crops in major agro-ecologies in FTF target and Resilience focus countries (see Section A.IV.d.6.) and regions.
- Appropriateness and scalability within the context of the FTF target geographies and focus on production systems;
- Strategic topics and approaches in which USAID-funded U.S. university research programs would hold a comparative advantage, while leveraging the strengths of related programs implemented by other partners in order to maximize research, local capacity, and development impacts;
- Develop a research program which incorporates the GFSS objectives, discussed in Section A.IV.d.2., to ensure that the research program emphasizes innovations, new knowledge and technologies, in addition to proven control/management practices, that promote reduced vulnerability to biotic threats and encourage investment that drives income, nutrition and resilience benefits; and
- Integrate and address cross-cutting issues discussed in Sections A.IV.d.4, as appropriate, and incorporate into design and concept of proposed research agenda.

Several FTF ILs within the current portfolio do relevant work on similar threats in their respective crops, value chains or production systems, and make important contributions within those contexts. Cooperation with other FTF ILs is essential for the success of the CETC Innovation Lab. These programs work together, sharing information, strategies and where appropriate, share priorities and coordinate research and local capacity building efforts. In addition, USAID's Bureau for Humanitarian Assistance also works to address emerging threats to crops in certain contexts, offering opportunities for cooperation and improved critical outcomes that span the humanitarian and development contexts.

It is the ME's responsibility to ensure that the research program, starting with the Areas of Inquiry, aligns to the relevant themes within the GFSS or any new food and nutrition security initiatives during the Innovation Lab's period of performance.

Applicants must propose and justify an approach to addressing the Areas of Inquiry described above that will guide the ME's development, selection, and management of a focused portfolio of research activities that achieve the objectives of the CETC Innovation Lab. Applicants may also propose well-justified additional or alternative areas of inquiry aligned with the objectives,

[9] Global Food Security Strategy Technical Guidance Objective 2: Strengthened Resilience Among People and Systems, https://cg-281711fb-71ea-422c-b02c-ef79f539e9d2.s3.us-gov-west-1.amazonaws.com/uploads/2018/03/GFSS_TechnicalGuidance_Resilience.pdf

[10] GFSS Technical Guidance Objective 1: Inclusive and Sustainable Agricultural-Led Economic Growth, https://cg-281711fb-71ea-422c-b02c-ef79f539e9d2.s3.us-gov-west-1.amazonaws.com/uploads/2018/03/GFSS_TechnicalGuidance_EconomicGrowth.pdf

[11] Global Food Security Technical Guidance Objective 3: A Well-Nourished Population, Especially Women and Children, https://cg-281711fb-71ea-422c-b02c-ef79f539e9d2.s3.us-gov-west-1.amazonaws.com/uploads/2018/03/GFSS_TechnicalGuidance_Nutrition.pdf

or propose an alternative organization or framing of these concepts and approaches as appropriate to advance a creative, high-impact Program Description.

A. IV.c.2. Portfolio Selection

A key premise of all FTF ILs is collaborative research through partnerships. To accomplish the goals of the CETC Innovation Lab, the ME defines the research agenda and objectives in a five-year research plan designed in collaboration with USAID. The ME will then issue its own Request for Applications (RFAs) to partner with U.S. and international research and educational institutions, the private sector, and others under formal sub-agreements that define, authorize, and fund the work to be done under the Innovation Lab. The ME is responsible for overall program implementation, financial and administrative management, assurance of quality of results by its partners, and reporting of results, among other responsibilities.
Prior to selection of the portfolio of activities, the ME must develop a strategy to (a) prioritize which current and emerging threats to address, (b) determine the threshold needed to add or pivot management of another emerging threat, (c) monitor the progress of threat management activities, and (d) monitor program impact. All research activities must be structured to answer, directly or indirectly, at least the following questions before, during, and after the development and dissemination of research outputs:

- How does the research activity advance USAID-supported goals and strategic objectives?
- How does the research activity address the pest/disease management, economic, and environmental needs of FTF beneficiaries, including low-income farmers (men, women, and youth) as their needs are understood? Is the research and/or the likely output accessible, as appropriate, to both men and women? Is the research, as appropriate, accessible to male and female youth?
- How does the research activity address issues related to environmental sustainability?
- How does the research activity address food security, diet, and nutrition issues?
- How does the research activity help to increase smallholder producer profitability and productivity?
- How does the research activity accelerate the knowledge base of, and host countries' people's and systems' capacity to, manage current and emerging threats to major food security crops in priority countries and their major agro-ecologies?

(i) Competitive Research Selection

USAID maintains a commitment to fair and open competitive procurement as this approach generates the highest-quality research and development outcomes. As a result, a majority of funds allocated for research activities must be used for subawards issued through competitive solicitations issued by the ME. To support a vigorously competitive solicitation process, the ME will develop and publicize RFAs that elicit high-quality applications from a diverse type and number of institutions in the U.S. (including Minority Serving Institutions), new partners as per USAID's New Partnerships Initiative,[12] and appropriate international institutional partners. For each RFA that the CETC Innovation Lab releases, the ME will organize an

[12] New Partnerships Initiative, https://www.usaid.gov/npi

intellectually rigorous peer review process through which peer reviewers with a range of relevant expertise will be engaged. The Competitive Research Selection process must produce a portfolio of subawards that collectively meet the Innovation Lab objectives to marshal the most relevant scientific approaches, and also keep in view access by low-income producers, gender and youth equity, potential for local capacity development and leadership, and private sector engagement. Where appropriate, applicability of digital tools should also be considered.

Typically, FTF ILs create and rely on an External Advisory Committee (EAC) that reviews all applications submitted to the ME in response to RFAs. The EAC provides recommendations to the ME on subaward selection. The EAC then periodically reviews the progress of the subaward activities and provides recommended changes as needed. (See Section A.IV.e.1.(v) for more information on the EAC.)

(ii) Requirement for Application

Applicants are required to submit as an annex, a **draft Request for Application (RFA)** which *will not count toward the Application page limit*. The draft RFA will be reviewed as part of the Technical Application evaluation. The draft RFA should be for a potential subaward to be awarded under one of the proposed Areas of Inquiry (Section A. IV.c.1.) for a selected country and crop as discussed in Section A.IV.d.6, Geographic and Production System Focus. In the main body of the Technical Application, Applicants must also describe the process for precluding any favoritism and avoiding, neutralizing, or mitigating any potential organizational conflict of interest that the ME or peer review panel members may have (e.g., a research proposal submitted by other faculty from the same institution where the ME resides).

(iii) Commissioned Activities

Because of the nature of global development work, USAID recognizes that there may be instances when directed or commissioned research, studies and quick start (limited duration) activities will best meet the strategic needs of USAID and its partners and the CETC Innovation Lab objectives. Commissioned activities should begin shortly after the lead award is issued. Their purpose is to identify and/or formulate strategies to address critical biotic crop threats that require a rapid response and where the added time to issue competitive subawards would be detrimental. They should help inform the focus of the competitively issued subawards. Commissioned activities should be limited and funded from the ME's budget. Consequently, the ME must be prepared to directly commission research without a competitive process. The ME must provide compelling justification to do so after review and recommendation by appropriate Innovation Lab advisory body/ies (e.g, EAC). Final approval is required from the USAID Agreement Officer (AO).

Applicants must describe the process to determine whether such an activity is appropriate and how it will handle any conflicts of interest between proposed Principal Investigators (PIs) and ME staff, the ME PIs at its home institution, and existing research activities.

A.IV.d. Approach to Ensure Relevance of the Program Portfolio

A.IV.d.1. Global Engagement of the Director

To ensure strong engagement among the CETC Innovation Lab, other international research institutions, and NAROs, USAID is seeking an Innovation Lab led by a prominent member of the global crop protection research field, highly experienced in an appropriate technical discipline in international development settings, and the standing to engage global donors, research organizations, regional oversight bodies, and NAROs to produce global agricultural research goods. The Innovation Lab Director must be a thought leader in the area of crop threat management research for development with an actionable vision for leading the global crop protection community and capable of interfacing well at high levels of international organizations and national governments. One of the responsibilities of the Director will be to catalyze additional international investments and resources to increase Innovation Lab impact beyond what USAID is solely able to fund.

A.IV.d.2. Incorporation of GFSS Objectives

The Applicant is expected to develop a research and local capacity development program that incorporates GFSS objectives into the activity design, knowledge generated and evaluation tools. The GFSS aims to advance food security and improved nutrition by focusing efforts around the three interrelated and interdependent objectives discussed below.

(i) Agriculture-led Economic Growth

Innovations from research are seen as central to driving impact and productivity growth in agriculture. The 2019 World Bank study "Harvesting Prosperity"[13] demonstrates that agricultural growth is up to four times more effective in reducing extreme poverty as growth in other sectors in poorer developing countries. Growth in the agriculture-food sector is especially dependent on research-generated innovation, far more so than other development sectors. FTF IL research investments often lead to outcomes that advance multiple GFSS objectives. Productivity gains drive agricultural growth through higher yields, reduced risks from pests or diseases, reduced post-harvest losses and improved quality, and overall improved value resulting from strong market demand for higher quality foods. Applicants must demonstrate a clear understanding of how the CETC Innovation Lab's research program will lead to new tools and knowledge to manage biotic crop threats whose use improves cropping systems, livelihoods, and economic well being.

(ii) Strengthen Resilience among People and Systems

Under this GFSS objective, resilience and risk are interrelated. Resilience is the ability of people, households, communities, and systems to reduce, mitigate, adapt to, and recover from shocks and stresses in a manner that reduces chronic vulnerability and facilitates inclusive growth. It is an essential condition for sustainably reducing global hunger, malnutrition, and poverty as well as to reduce reliance upon emergency food assistance.

[13] https://openknowledge.worldbank.org/bitstream/handle/10986/32350/9781464813931.pdf?sequence=6&isAllowed=y

Risk management is the set of activities, behaviors, decisions, and policies that allow individuals, households, and communities to mitigate (reduce) the likelihood or severity of a shock and to transfer or positively cope (without employing negative coping strategies, such as productive asset depletion) with shocks, stress, and risk exposure, including adaptation strategies that help individuals, households, and communities manage longer-term trends and stresses. The CETC Innovation Lab should become an important source of risk-reducing technologies and farm management practices.

The GFSS Resilience objective also shares GFSS Intermediate Result 4 – Increased sustainable productivity, particularly through climate-smart approaches. Addressing the role of crop protection research in increasing food security can incentivize investment through both increased productive potential and reduce risk.

Applicants must demonstrate a clear understanding of how the CETC Innovation Lab's research efforts will lead to improved and/or new tools, technologies, and methods that will be utilized to contribute to decrease risk or improve risk management. Applicants must consider and detail how the Innovation Lab will strengthen functional capacities of local partners and systems to adapt and respond to biotic crop risks to realize the potential of innovation to protect local, national, and regional food systems on which the poor depend.

(iii) A Well-Nourished Population

A well-nourished population, especially among women and children, is the third GFSS objective. In a food systems approach, FTF ILs generate technologies, methodologies and policies that contribute to improved nutrition, both directly and indirectly. While various activities across sectors are needed to meet this outcome, the CETC Innovation Lab will focus research efforts on designing, creating, and upgrading tools, technologies, and methods that identify and strengthen opportunities for smallholder farmers to sustainably and economically produce safe, nutritious crops free of pests and diseases. There is also an opportunity for new tools that will lead to increased understanding of how to manage biotic crops threats with greater intrinsic food safety (e.g., technologies and practices that minimize harmful pesticide residues, reduced damage that enables secondary infections with mycotoxin-producing fungi). Improved quality and safer food products will stimulate investment across the agri-food system, linking production through to consumption.

Applicants must demonstrate a clear understanding of how the CETC Innovation Lab will ensure that nutrition and food safety are addressed in the research program and related local capacity development efforts. These efforts should lead to improved and/or new tools, technologies, and methods that contribute to improved dietary and nutritional outcomes. By reducing the impacts of biotic threats, the analysis should explore positive impacts on the food system, particularly as they impact low-come and vulnerable groups (e.g., safety, availability, affordability, quality, etc.). The USAID Multi-Sectoral Nutrition Strategy is a recommended resource.[14]

[14] The USAID Multi-Sectoral Nutrition Strategy addresses pathways to optimal nutrition. https://www.usaid.gov/nutrition-strategy

A.IV.d.3. Importance of Climate Change

Climate change is a major factor driving the spread of pests and diseases. Climate change can affect the population size, survival rate and geographical distribution of pests, and the intensity and geographical distribution of pathogens. The GFSS is abundantly clear on the threat rapidly changing climate patterns present to agricultural production. The intensifying challenge of changing climate patterns and extreme weather events such as droughts, floods, and extended periods of extreme temperatures pose major challenges to global food security, requiring new food production practices along with enhanced monitoring and response to the exponential threat to agriculture from pests and diseases.

Exacerbating the climate challenge is continued stress on ecosystems, the land, water, and natural resource base upon which productive agriculture relies. Responding to these challenges requires research to provide new tools and approaches for increasing agricultural productivity, monitoring and managing pests and diseases and associated risks, better managing and governing natural resources related to the food supply, adapting to the effects of a changing climate, and ultimately mitigating the pest and disease threats to crop production.

A.IV.d.4. Incorporation of Cross-Cutting Issues

Cross-cutting issues feature prominently in crop protection research. As the CETC Innovation Lab generates new technologies and knowledge products, it is in USAID's interest for Applicants to understand and consider the cross-cutting issues and how they impact the creation of the tools, technologies, methods, and knowledge produced by the Innovation Lab. Applicants must ensure that the following cross-cutting issues are addressed in their Application, both across the Innovation Lab portfolio and within component activities. More context for each issue is included in Annex 2.

(i) Gender Equality, Equity, and Participation

The ME is expected to outline key research processes or questions to advance gender integration in each objective and proposed Area of Inquiry. The Innovation Lab must develop knowledge, recommendations, tools, and strategies that recognize and account for the needs and multi-dimensional roles of both women and men in small-scale production and marketing systems. As the Lab develops technologies and methods to manage pests and diseases, it must ensure that such outputs reflect and contribute to development and accessibility of innovations that meet women's and men's needs and preferences as farmers, processors, and consumers. Similarly, the CETC Innovation Lab must ensure that research efforts and outputs meet needs of women and men as researchers. Efforts that engage other actors further downstream in development and marketing must consider how factors such as access to agricultural information and cooperative membership, ability to access complementary inputs needed by new varieties, cost, perceptions of risk and shifts in workload may affect gendered uptake and impact of innovations. Because men and women are not homogenous groups, the Innovation Lab must, to the extent possible, be sensitive to this diversity, and explicitly recognize the specific needs among different communities.

(ii) Youth

The 2012 Youth in Development Policy[15] mandates the inclusion of critical priorities concerning youth (ages 10–29) across USAID's portfolio, and the GFSS has committed itself to mainstreaming youth in agriculture, food security, and nutrition whenever and wherever possible using a Positive Youth Development framework[16]. The CETC Innovation Lab should be mindful of how its research program develops knowledge, recommendations, tools, and strategies that recognize and account for the needs of, and opportunities for youth in pest management approaches in low-income smallholder production and market systems.

(iii) Inclusion

Applicants must demonstrate a clear understanding of how the CETC Innovation Lab's research efforts will lead to improved and/or new tools, technologies, and methods that will be accessible and utilized by smallholder farm households. Consideration of whether potential research may generate scale neutral innovations, or whether particular consideration must be given towards pro-inclusion pathways will generate additional opportunities for ensuring equity. This may require drawing on a range of informed perspectives that take into account demonstrated interests of potential adopters, including those who are resource-poor.

A.IV.d.5. Agricultural Innovation Systems Approach

The long-term sustainability and success of food security and nutrition research investments are dependent on local capacity development for agricultural innovation. Experience guides us toward ensuring that researchers are informed by the interests and needs of the wider user community, from farmers to seed companies to a range of actors across the food system all the way to the consumer. Information needs to flow between and among participants in the innovation system and with researchers in ways that build a broad set of engaged stakeholders. If done well, research outputs spark interest and demand from users, greatly increasing the likelihood of, and speed with which, an innovation will be adopted.

FTF ILs play an important role in partnering with local stakeholders to identify opportunities and barriers in innovation and market systems through their research, as well as facilitating local capacity development and relationships that are necessary to scale use of beneficial technologies and practices. Many technologies require private sector engagement to optimize diffusion and adoption at scale. However, note that in some types of biotic threat management, public sector actors are the main means by which initial uptake and impacts are delivered at the farm level. Not every innovation will require the same set of actors or the same pathways, but discernment at an early stage of research planning and design increases the likelihood of advancing global food security, resilience and related nutrition investment.

[15] https://www.usaid.gov/policy/youth

[16] http://www.youthpower.org/

An agricultural innovation systems (AIS) approach may be a useful lens through which local capacity development and scaling may be considered. This approach shifts attention away from research and the supply of science and technology as an independent operation and toward the whole process of innovation in which research is embedded. An AIS perspective considers the interaction of people, the knowledge, technology, infrastructure, and cultures they have created or learned, who they work with and their motivations/incentives, and what new ideas they are experimenting with. It pays explicit attention to this interaction of individuals and organizations across the domains of research and education, private sector and markets, agricultural extension and other bridging institutions, and the enabling environment.

Using this lens, the CETC Innovation Lab research should integrate strengthening critical capacities and relationships among public research and extension programs and private sector enterprises, as appropriate, when considering research partnerships and impact pathways. This will be achieved in part when national agricultural research organizations (NAROs) use the tools and methods jointly developed with the Innovation Lab in ways that strengthen their organization and relationships. Ultimately, this helps them to be better able to create additional new, improved innovations that are responsive to the needs of farmers and other public and private sector technology-scaling partners..

(i) Local Capacity Development for Research and Innovation

USAID emphasizes the importance of local capacity development and local ownership to improve a country's ability to plan, finance, and implement solutions to address its own development challenges on the journey to self reliance. Development and adaptation of innovations suited to local contexts requires a strong and empowered cadre of researchers and practitioners with advanced technical and functional competencies embedded within high-performing organizations and networks. Integrating local capacity development into design and implementation of the CETC Innovation Lab research activities will be vital to accelerating and innovating crop biotic threat research. In particular, co-creation of knowledge and solutions with local stakeholders is encouraged throughout the research program, from identification of the research objectives and research design to field testing and technology dissemination.

The ME will ensure that local capacity development is a foundational design consideration, both across the overarching program and within individual program/research activities as appropriate, incorporating the following concepts.

- Local capacity development efforts must be designed to primarily benefit host-country individuals and/or host country and/or regional organizations. Efforts should support and enable organizational learning, and utilize a systems approach.
- Applicants should consider how the efforts complement and leverage other USAID investments, including the work of other FTF ILs, and strive to collaborate as much as possible, especially around efforts aimed at organizational and institutional relationship strengthening.
- Applicants must identify how the ME will integrate local capacity development interventions that are complementary to the activities of international agricultural research centers, as appropriate.

- Given the important role of the private sector to scale technologies and practices during and after the life of the CETC Innovation Lab, a local capacity development approach must consider the capacities of the local private sector.

The following documents are resources for additional insights on the USAID approach to local capacity development for sustained development: GFSS Technical Guidance on Capacity Development[17], USAID Local Systems Framework[18], USAID ADS 201 Additional Help Document, Local Capacity Development: Suggested Approaches[19], and USAID Technical Note on the 5Rs Framework[20].

(ii) Private Sector Engagement for Scaling

For development interventions to achieve the most impact, programs need to reach strategically beyond direct participants through a facilitative and enterprise-driven development approach that can lead to widespread adoption of improved technologies and practices at the population level (e.g., hundreds of thousands to millions, depending on the innovation and context). Under the USAID Private-Sector Engagement Policy[21], "enterprise-driven development means aligning with the private sector as co-creators of market-oriented solutions, with shared risk and shared reward."

Although scaling of technologies and/or practices may not be within the immediate manageable interests of the CETC Innovation Lab, consideration of downstream adoption pathways and end-user demand cannot be deferred until a new technology or practice is ready for transfer to a scaling partner. Instead, research partners must proactively and intentionally examine and address, to the extent possible, conditions required for uptake and eventual scaling throughout all stages of research activity design, selection, and implementation.

Scaling can occur via different delivery pathways, from private sector commercialization to dissemination by public-sector or civil-society partners (or a combination thereof). Best practices to maximize scaling potential and development impact of research outputs should:

- Consider local needs, preferences, and market demand throughout activity design and implementation to ensure the resulting research outputs will ultimately achieve scale;
- Explore and identify potential scaling pathways early in activity design and implementation;
- Foster research partnerships with potential scaling partners in order to promote co-innovation, inform development of appropriate and user-oriented technologies, and facilitate downstream adoption of new knowledge and practices;

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[17] Global Food Security Strategy Technical Guidance for Capacity Development, https://cg-281711fb-71ea-422c-b02c-ef79f539e9d2.s3.us-gov-west-1.amazonaws.com/uploads/2018/03/GFSS_TechnicalGuidance_Capacity%20Development.pdf

[18] Local Systems: A Framework for Supporting Sustained Development, https://www.usaid.gov/sites/default/files/documents/1870/LocalSystemsFramework.pdf

[19] https://usaidlearninglab.org/sites/default/files/resource/files/ads_additional_help_lcd_1.13.2017.pdf

[20] https://usaidlearninglab.org/library/5rs-framework-program-cycle

[21] Private Sector Engagement, https://www.usaid.gov/work-usaid/private-sector-engagement

- Use participatory research methodologies that engage intended end-users and potential scaling partners, especially the private sector, in co-design and testing of innovations.
- Solicit and respond to ongoing, iterative feedback from end-users, stakeholders, and scaling partners to inform research activities;
- Maintain research partner engagement after handoff to scaling partners with the aim of providing technical support to and building effectiveness of local scaling partners; and
- Engage strategically with private sector partners early and throughout the product life cycle.

To be responsive to USAID expectations for development-oriented research programming, the CETC Innovation Lab is required not only to generate improved knowledge, technologies, and practices, but also to make those research outputs available for uptake by partners who will take them to scale. For the Innovation Lab, the primary partners for scaling are researchers and other crop protection actors such as private sector input companies, providers and distributors; however, the CETC Innovation Lab must not ignore the ultimate needs of farmers (men and women, young and old) who will use the innovations stemming from this program. For further discussion of considerations when assessing the scalability of innovations, please refer to the "Guide to the Agricultural Scalability Assessment Tool."[22]

Strengthening public-private partnerships that leverage each partner's strengths (e.g., knowledge and technological assets, industry expertise, investment support, managerial expertise, dealer networks in remote farming communities, logistical, supply chain and distribution expertise, speed-to-market for quickly changing pest conditions and geographies) may be a valuable approach through which research outputs can be brought to scale. Further considerations in working in partnership with the private and public sector to scale innovations are discussed in "Success Factors for Commercializing Agricultural Research: Lessons from Feed the Future Partnering for Innovation."[23] USAID/RFS and Missions have various mechanisms that may be available to complement the CETC Innovation Lab efforts and support these scaling and partnership efforts.

Applicants must describe how linkages and partnerships among local NAROs, other regional or public research organizations, extension or other "bridging" organizations (local and international), and other relevant entities will be strengthened and facilitated — with the private sector — for technology handoff (including issues related to intellectual property rights, licensing, revenue sharing) and scaling. Applicants should discuss what and how the strengths of different organizations and stakeholders will be leveraged.

A.IV.d.6. Geographic and Production System Focus

Research outputs of the CETC Innovation Lab must be primarily focused on achieving global and regional impacts, focusing on significant problems in major agro-ecologies that span

[22] https://www.agrilinks.org/sites/default/files/resources/asat_guide_revised_508_6-7-18.pdf

[23] https://static1.squarespace.com/static/5a7b7b36d55b416e7a7bcd2b/t/5ab5143088251b2e6b196cf5/1521816625457/FTF+Partnering+for+Innovation_8+Success+Factors_Research.pdf

multiple countries. As a key component of the proposed program description, Applicants must select focus crops within production systems and target countries in which to conduct research and capacity development activities funded under the Leader Award. Additionally, the ME must be able to expand activities into other countries in which USAID invests agriculture, nutrition and resilience resources in response to additional buy-in or Associate Award funding opportunities that may arise. The ME and researchers are encouraged to engage with USAID Mission staff, Mission implementing partners, private sector representatives, and other stakeholders as appropriate, including in the early stages of research design and implementation, to ensure that program activities will contribute to a pathway of significant development impact. (However, *Applicants must NOT contact any USAID Mission or Office staff, other than the contact person identified in this NOFO, during the application phase.*)

The following is a guide to assist Applicants during their focal country and production system selection process but is not meant to be prescriptive.

(i) Crop Selection

Selection of crops and production systems will depend, in part, on the following. Final crop selection will occur post award in consultation with USAID.

1. The extent of the biotic crop threat.
2. The current or potential impact of the biotic threat on food security and livelihoods of smallholder farmers.
3. The lack of appropriate knowledge, innovation and/or technologies to manage the threat.
4. The in-country capacity to mount an effective management response.

While dedicated labs already exist that focus on sorghum, millet, soybean and peanut, the expectation is that these crops will be highlighted in the CETC IL only when there is a critical biotic threat that these Innovation Labs are not suited to address (Note: It is critical that the CETC Innovation Lab works closely with both the crop-focused Innovation Labs and other existing Innovation Labs to ensure synergy of efforts.). USAID does not anticipate supporting CETC IL efforts targeting (a) non-food crops (e.g., cotton, timber, tobacco); and (b) crops of greater interest to commercial growers than smallholder farmers (c)crop storage pests.

(ii) Country Selection

Developed countries (other than the U.S.), advanced developing countries (except those hosting a USAID Mission), and restricted countries will not be allowed to host research activities.[24] Additional information on GFSS country strategies and programs can be accessed from https://www.feedthefuture.gov/about/ and USAID Mission websites.[25]

[24] For more information on the categorization of countries by USAID, please refer to ADS Chapter 310 – Source and Nationality Requirements for Procurement of Commodities and Services Financed by USAID: https://www.usaid.gov/sites/default/files/documents/1876/310.pdf

[25] Where We Work, https://www.usaid.gov/where-we-work

The CETC IL has an opportunity to fill critical research gaps in crops important to food security in the tropics and subtropics. Applicants must prioritize working in the FTF target and aligned and Resilience focus countries listed in the footnote.[26] Specifically, it is expected that the CETC IL will work in one or more countries in West Africa, East/Southern Africa, and South Asia. Additionally given the transboundary nature of most major pests and diseases, the applicant should be prepared to work in a non-prioritized country when appropriate. The Applicant should identify one target country or region in their application. The application must justify this selection using at least the following criteria:

1. Current, serious biotic threat(s) to crops of food security importance,
2. Anticipated emergence of serious biotic threat(s) to crops of food security importance,
3. National research capacity to support and/or lead research efforts on the ground, and
4. Private sector infrastructure to support dissemination of research innovations.

Note: Post award, the ME must also consider the importance placed on crop protection by the local USAID Mission.

Countries that do not meet the above criteria but host relevant CGIAR or other international research centers may also be considered to take advantage of their research expertise; however, Applicants must justify selection of such a country and research partner through articulation of explicit linkages with FTF country research programs and biotic pest control goals. Applicants are encouraged to present and use additional criteria for choosing target countries to present the strongest case for each country. Other countries may be proposed, but all target countries selected must collectively optimize tradeoffs among multiple selection rationale.

USAID will work with the Apparently Successful Applicant post-award to finalize the list of focus countries for the CETC Innovation Lab. Congress may impose spending caps or other restrictions on any country to which USAID provides assistance, and the ME and USAID must adjust programs accordingly as these constraints arise.

A.IV.e. Approach to Ensure Accountability

A.IV.e.1. Staffing Plan

To ensure successful implementation of core technical and management functions, Applicants must clearly define roles and responsibilities of proposed staff, proposed staff positions, other university departments, and external advisory bodies. USAID discourages exclusivity agreements between the Applicant and any candidates proposed for Key Personnel (i.e., a person could be proposed by multiple Applicants). **"Key Personnel" of the CETC Innovation Lab will be the Director and the Associate or Deputy Director**. The proposed technical team, which will include Key Personnel and may include Technical Specialists in disciplines related to crop protection, must collectively demonstrate strong technical capacity in gender-responsive agricultural research (see Section A.IV.d.4), youth inclusion, and local capacity development. These Specialists can come from institutions other than the ME.

[26] Bangladesh, Burkina Faso, Democratic Republic of Congo, Ethiopia, Ghana, Kenya, Liberia, Malawi, Mali, Mozambique, Nepal, Niger, Nigeria, Rwanda, Senegal, Somalia, South Sudan, Tanzania, Uganda, Zambia, Zimbabwe

Applicants must describe in detail the specific staffing plan, including an organizational chart, to ensure efficient use of resources and strong and effective management, administration, technical implementation/performance, and clerical support. The staffing plan must outline roles and responsibilities of proposed staff positions, proposed lines of responsibility, authority and communication, and procedures to ensure productivity as well as cost and quality control and to ensure that all USAID programmatic requirements are assigned to at least one proposed position. If more than one staff member will be assigned responsibility for an area, functional supervision must be defined for that area. The staffing plan should include level of effort (LOE) for each position, as a percentage of full-time equivalent (FTE). While the Director should be full-time (or at a slightly reduced LOE to maintain their university appointment), other staff can have a lower LOE. The plan should make clear that sufficient time and expertise is available to complete activity objectives.
While it is usually the case that all ME staff positions reside within a single institution (namely, the Applicant institution), it is possible for some staff, including the Director or Associate Director, to be based in an institution different from the Applicant institution. However, either the Director or the Associate or Deputy Director must be employed or contracted by the Applicant institution. The Applicant must clearly describe such a scenario in the organizational structure and lines of reporting from the Director and other ME staff to department heads or management at their home institutions.

(i) Innovation Lab Director

The Innovation Lab Director has overall responsibility for management and implementation of the CETC Innovation Lab, and serves as USAID's principal point of contact for all issues regarding the Innovation Lab. The Director publicly represents the Innovation Lab to the U.S. Government, the public, the global research community, and other diverse stakeholders, and is ultimately responsible for activity coordination, planning, work plan development, program reporting, and overall program monitoring and evaluation. The Director ensures that cross-cutting issues are properly addressed throughout the entire portfolio. The Director also ensures coordination, communication, and cross-learning between both internal and external partners and stakeholders of the project. The Director is the primary point of contact for development of Associate Awards and buy-ins and is responsible for integrating Associate Awards and buy-ins into the overall Innovation Lab program.

Applicants may transfer some of the Director's responsibilities to the Associate or Deputy Director at the time of application but must clearly describe this transfer of responsibilities and provide a justification as to why this would benefit the CETC Innovation Lab (e.g., to free the Director to spend more time coordinating with relevant stakeholders) and the impact to the LOE for both the Director and Deputy Director. After award start up, the Director may transfer some of these responsibilities to other staff contingent upon approval by USAID.

The Director is envisioned as a full-time position (0.80 to 0.95 LOE [FTE]); however, if the Director meets the subject matter expertise qualifications but cannot commit to full-time management responsibilities, a lower LOE may be proposed with justification of such an arrangement and a staffing plan that supports the Director's management responsibilities

within other staff members. The Director must hold a Ph.D. (or equivalent advanced degree) in a subject relevant to international crop protection research as described by this NOFO, a minimum of 10 years (15 preferred) relevant technical expertise, and demonstrated competency in international agricultural research program management. Experience in managing research partnerships between international, national, and local partners is required.

Applicants must identify the person to serve as the Director with a complete description including (1) role and responsibilities for Innovation Lab leadership and implementation, (2) proposed LOE, and (3) qualifications for this position. A CV (limited to 5 pages) and a letter of commitment from the proposed candidate must be included in an annex to the technical application that *will not count toward the Application page limit*.

(ii) Associate or Deputy Director

The Associate or Deputy Director supports the Director and serves as Innovation Lab leader when called upon. The Associate or Deputy Director must hold at least a Master's or equivalent advanced university degree in a subject relevant to international crop protection, a minimum of 5 years relevant technical expertise, and demonstrated program management competency.

Applicants must identify the person to serve as the Deputy or Associate Director with a complete description including (1) role and responsibilities for Innovation Lab leadership and implementation, (2) proposed LOE, and (3) qualifications for this position. Higher consideration will be given to Applicants who propose a candidate with experience most closely matching the requirements described above. A CV (limited to 5 pages) and a letter of commitment from the proposed candidate must be included in an annex to the technical application that *will not count toward the Application page limit*.

(iii) Other Personnel

Proposal of any additional management positions, position descriptions, and accompanying LOE, rests with the Applicant and will depend on the nature of the proposed research and local capacity development program. Proposed personnel must be sufficient to effectively and efficiently execute all technical and management functions. Various responsibilities that need to be filled within a successful ME include:

- Effective management of all financial tasks, including timely and accurate financial statements and reports according to USAID guidelines and generally accepted accounting principles (GAAP).
- Creation of materials to increase awareness and to promote productivity including maintaining a positive image of the Innovation Lab to all parties, including research and development communities, policy makers and government stakeholders, users of generated technologies, and the general public.
- Execution of planning, monitoring, evaluation, learning, and reporting aligned with USAID requirements.

- In-country coordination to ensure decisions and analyses are consistent with realities on-the-ground, activities are aligned with USAID country and regional priorities and geographies, and critical partners are engaged from the beginning of the project.
- Creation and management of sub-contracts or sub-grants to other responsible institutions to conduct research activities, including international institutions. The financial and contract and grant offices of the successful Applicant institution must have the demonstrated capacity to issue and manage such sub-contracts or sub-grants using financial and contract mechanisms appropriate for the expected range of subawardees. The accounting system must be able to account for funds allocated to each country, including through subawards, and by funding origination year.
- Design of a research program, subawards and activities that ensure gender, youth and inclusion integration principles are reflected as discussed in Section A.IV.d.4.

These other personnel are not subject to approval by USAID and as such only the position and associated responsibilities are required to be listed in the application. Applicants are advised to find qualified staff to fulfill these responsibilities prior to program implementation, but USAID will not review individual qualifications or CVs of these other staff positions either during the application evaluation or after award. Please do not send individual's names or CVs for these positions with the application.

(iv) Technical Specialists

Depending on the nature of the research to be conducted under the Innovation Lab, Technical Specialists may be necessary or preferred to perform specific functions such as conducting scoping studies to inform an RFA (e.g., biotic threat pressure in selected crops) or monitor programming, according to a plan of action directed by the Innovation Lab Director. The Technical Specialists' areas of expertise might include, but are not limited to, the following: agronomy, entomology, plant pathology, nematology, farm management, knowledge management, community development, gender, youth, climate, risks management and resilience, capacity development, policy, private sector engagement, and market development. Their expertise may be cross-cutting in several technical fields. Technical Specialists may be local, host country or regional hires with length of assignment determined by need. Alternatively some critical technical input may be provided by specialized consultancies.

(v) Advisory Committee

Applicants must describe how the ME will hold subawardees accountable for progress along the defined impact pathway and address how the ME will oversee subaward activities, along with means to correct, cancel, or terminate under-performing subawards. Typically, FTF ILs accomplish this partly through oversight of an Advisory Committee (variously called External Advisory Panel, External Advisory Committee, etc.). Applicants must describe the mandate and oversight to be ascribed to any such committee and desired composition of the members.

A.IV.e.2. Monitoring, Evaluation, and Learning

A "Collaboration, Learning and Adapting" (CLA) approach[27] is a primary precept for USAID work. The ME's explicit incorporation of CLA is expected to strengthen the technical knowledge base for new strategies and programs, as well as contribute to continuous alignment of programs with dynamic contexts, encourage adaptability and accountability, and support early recognition and application of new trends and findings to strategically influence outcomes within and beyond the CETC Innovation Lab research program. The ME must:

- Plan to develop approaches, such as partnerships and platforms, to share "lessons learned" both internally (among target and partner countries and among the Innovation Lab participants) and externally, such as with stakeholders, including the public and private sectors and civil society.
- Provide approaches to ensure that structures and opportunities are in place to facilitate cross-project learning within the CETC Innovation Lab portfolio and data generated through the Innovation Lab must be regularly curated by the ME.
- Ensure knowledge garnered downstream about technology users, their tastes, and preferences be communicated upstream to researchers as part of a learning and feedback system and integrated into the theory of change.
- Ensure that knowledge and understanding gained from the cross-cutting issues are incorporated into the rest of the portfolio as part of a virtuous cycle in addition to being shared with other FTF stakeholders as relevant.
- Engage and leverage existing knowledge-sharing platforms and resources to further their reach and impact. For insights on and some examples of knowledge management under FTF programs, visit Agrilinks[28] and the USAID Learning Lab.[29]

The Applicant's approach for ensuring that research activities are oriented to development impact must be clearly articulated throughout the Technical Application. Within 60 days after the award is made, the Applicant must submit an Activity Monitoring, Evaluation and Learning (MEL) Plan[30] that includes a relevant theory of change describing impact pathways, an accompanying results framework or logic model, performance indicators, an illustrative plan for data collection and management, and a description of how learning and adaptive management will occur. Additionally, the applicant must describe how they will utilize the Sustainable Intensification Assessment Framework[31]. The plan must specify how cross-cutting issues are incorporated and measured throughout the impact pathways. The theory of change must also acknowledge what is and isn't within the sphere of control and influence of the CETC Innovation Lab as well as critical assumptions. Impact pathways must also consider knowledge sharing and transfer of research outputs to relevant end users, including local organizations, to contribute to Innovation Lab objectives. Such end users may be researchers, government decision-makers, development professionals, and the private sector. More detail on the Activity MEL Plan is provided in Annex 3.

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[27] https://usaidlearninglab.org/faq/collaborating-learning-and-adapting-cla

[28] http://agrilinks.org/

[29] http://usaidlearninglab.org/

[30] See ADS 201.3.4.10 (https://www.usaid.gov/ads/policy/200/201) for USAID requirements on Activity MEL Plans. Note that "Activity" in this sense means the entire CETC Innovation Lab.

[31] https://sitoolkit.com/

Open Data Management Plan

USAID is committed to making U.S. Government funded data accessible, discoverable, and usable by our partners and is proactively releasing Agency-funded data to the public as a member of the Open Government Partnership, USAID's policy of sharing data in machine readable formats for public benefit is in adherence with the Office of Management and Budget's Open Data Policy. The ME is responsible for developing a Data Management Plan in accordance with USAID Development Data ADS Chapter 579[32] and storing and maintaining data in such a way as to deliver the data to the USAID Development Data Library (DDL)[33].

Applicants must describe kinds of data expected to be generated and how the CETC Innovation Lab will adhere to the Open Data Policy with each type of data, including whether data will be entered into the DDL, another data platform that meets the standards of the policy, or both.

A.IV.e.3 Buy-ins and Management of Associate Awards

The CETC Innovation Lab will be implemented under a Leader with Associates (LWA) mechanism, as described in the cover letter, Section A.IV.a, and Section B.I. Funding will be obligated under the Leader Award to support the core program focused on crop protection research and development. The Innovation Lab may also accept up to $24 million of additional funds, through buy-ins and Associate Awards from USAID Missions, Bureaus or Offices, to support additional activities related to its core research mission. Buy-ins and Associate Awards permit USAID Missions, Bureaus and Offices to address country-specific needs or respond to dynamically changing programmatic requirements by tapping into a competitively awarded program that offers global expertise that can be put into place quickly and efficiently. Depending on the nature of the request, buy-ins and Associate Awards may consist of commissioned activities, competitively awarded sub-awards, or both. Therefore, the ME must be prepared to identify and seek out partners to address a broad array of research questions regarding crop protection research. However, **these additional funds are not guaranteed.**

Buy-ins to the Leader Award are particularly valuable tools for Missions to access a global research program such as the CETC Innovation Lab. Buy-ins are generally used to fund small activities ($1,000,000 or less) that are already part of the approved Leader Award technical program. For example, an FTF IL conducting environmental sampling in one country might receive a buy-in from the USAID Mission in another country to conduct similar sampling there. Buy-ins are managed under the Leader Award (i.e., financial and activity reporting are incorporated into the documentation of the core program and submitted to the USAID Operating Unit funding the Leader Award).

If a Mission, Bureau, or Office prefers to maintain direct management of an activity, the unit may, instead, choose to issue an Associate Award to an FTF IL. Associate Awards require an agreement separate from the Leader Award, and financial and activity reporting may be overseen from the Operating Unit funding the Associate Award. An Associate Award has its

[32] http://www.opengovpartnership.org/

[33] https://project-open-data.cio.gov/

own timeline apart from the Leader Award and may extend beyond the duration of the Leader Award program.

Associate Awards are frequently used to scale up technological innovations proven successful by the Innovation Labs. Applicants must describe how the Innovation Lab will manage potential buy-ins and Associate Awards, including potential staffing changes and how the ME will engage additional experts required to fulfill potential research or scale-up objectives.

A.IV.e.4. Subawardee Engagement Plan

Requirement for Application

Applicants are required to submit as an annex, limited to five pages, a **Subawardee Engagement Plan (SEP).** *The annex will not count toward the Application page limit*. The SEP will be reviewed as part of the Management Approach of the Technical Application evaluation. The SEP will describe the plan for identifying, managing, and partnering with subawardees that provides sufficient detail for USAID to review alternative approaches among Applicants as well as sufficient detail to guide the ME in its interaction with, support to, and management of subawards and subawardees. In addition, this section provides the opportunity for Applicants to address the Title XII legislative mandate that implementing Title XII institutions partner with non-traditional partners, including MSIs, civil society, the private sector and local partners. The SEP must include the process they intend to undertake following award to continue to seek out these types of partners. USAID discourages exclusivity agreements between the Applicant and proposed partners.

It is possible that Applicants will have three or more different kinds of partners including:

- possible consortium members, if one or more U.S. universities or research entities come together to bid to provide overall leadership on global research and on capacity strengthening, including possibly the private sector, MSIs;
- sub-awardees (local and/or international) providing specific services necessary to project success; and
- country or regional research institutions that will be in some sense the direct "beneficiaries" of the work of the prior two categories, and also the primary implementers of country and regional research under this activity.

The SEP may also set out how the Applicant will have deeper and fuller relationships with the country or regional partner policy research organizations with which it plans to partner.

Please note that a consortium approach is one possible approach to engagement, partnership, and subawards since any consortium would be led by a prime awardee to interface with USAID.

(End of Section A)

SECTION B: FEDERAL AWARD INFORMATION

B.I Estimate of Funds Available and Number of Awards Contemplated

USAID intends to award one (1) Leader with Associates (LWA) Cooperative Agreement pursuant to this notice of funding opportunity. Subject to funding availability and at the discretion of the Agency, RFS intends to provide $15 million in total USAID core funding over a five (5) year period. The ceiling for this program is up to $39 million. It is estimated that up to $3 million will be obligated to the Leader Award in the first year as core funding from RFS, and up to $3 million per year thereafter, for a total of up to $15 million in core funding from RFS. Actual funding amounts are subject to availability of funds.

Furthermore, pending demand and funds availability from USAID Missions and other Bureaus or Offices, USAID will allow up to an additional $9 million dollars as a pool for potential Associate Awards and up to an additional $15 million for buy-ins during the life of the project to the holder of the Leader Award. The competition under this NOFO covers both the Leader Award and all subsequent Associate Awards and buy-ins. USAID reserves the right to fund any one or none of the applications submitted.

For the purposes of this NOFO, applicants must prepare a budget for the $15 million core funding from RFS.

B.II Start Date and Period of Performance for Federal Awards

The anticipated period of performance is five (5) years. The estimated start date will be on or about August 30, 2021. The estimated end date will be on or about August 30, 2026.

B.III Substantial Involvement

USAID intends to award a cooperative agreement for the Leader Award. A cooperative agreement is distinguished from a grant by virtue of USAID having substantial involvement (beyond that which is permitted under a grant) in the implementation of the program.

B.III.a. Leader Award

USAID will be substantially involved in the implementation of the core program of this NOFO under the Leader Award described in Section C.II.a. The intended purpose of the Agreement Officer's Representative (AOR) involvement during the implementation of the program is to assist the lead award recipient in achieving the supported objectives. These approvals must be made by the Agreement Officer (AO) except where explicitly delegated to the AOR. Substantial involvement will include:

1. Approval of Specified Key Personnel (i.e. Director and Associate/Deputy Director).
2. Approval of the Recipient's overall Activity MEL Plan, including impact pathway and

theory of change documentation, and performance evaluation. Delegated to the AOR.

3. Approval of the Recipient's Data Management Plan and Environmental Mitigation & Monitoring Plan. This will be delegated to the AOR.
4. Approval of Annual Implementation Plans, work plans, budgets, and semi-annual and annual reports. The work-plan must include a travel matrix of proposed international trips. This will be delegated to the AOR.
5. Concurrence on the substantive provisions of subaward RFAs and contracts for research and capacity development activities.
6. Collaborative involvement in selection of members for any advisory body or bodies for oversight, such as oversight of the program's research and capacity development portfolio, and membership on such body/bodies. This will be delegated to the AOR.
7. Concurrence on the recipients of subawards.
8. Review and approval of Program Descriptions and Budgets for proposed Associate Awards and Buy-Ins. This will be reviewed and coordinated with the AOR. However, the AO will have final approval by issuing amendments to the Award to incorporate buy-ins or issuing new Associate Awards.

B.III.b. Associate Awards

An Associate Award may be a grant or a cooperative agreement. If an Associate Award will be a cooperative agreement, specific substantial involvement provisions will be identified for that Associate Award.

B.IV Authorized Geographic Code

The geographic code for the procurement of commodities and services under this program is Geographic Code 937 (United States, recipient country, and developing countries other than advanced developing countries, but excluding any country that is a prohibited source). Geographic Codes are described in 22 CFR 228.03 and the Internal Mandatory References to Chapter 310 of USAID's Automated Directives System (ADS 310) entitled "List of Developing Countries", "List of Advanced Developing Countries", and "List of Prohibited Source Countries".

B.V Nature of the Relationship between USAID and the Recipient

The principal purpose of the relationship with the Recipient under the subject program is to transfer funds to accomplish a public purpose of support or stimulation of the CETC Innovation Lab which is authorized by Federal statute. The successful Recipient will be responsible for ensuring achievement of program objectives and efficient and effective administration of the award through application of sound management practices. The Recipient will assume responsibility for administering Federal funds in a manner consistent with underlying agreements, program objectives, and the terms and conditions of the Federal award.

(End of Section B)

SECTION C: ELIGIBILITY INFORMATION

C.I Eligible Applicants

Eligibility is restricted. The eligibility requirements below apply only to the principal Applicant.

This program is authorized under Title XII of the Foreign Assistance Act of 1961, as amended. Applications must only be submitted by eligible U.S. colleges and universities as defined under Section 296(d) of Title XII of the Foreign Assistance Act, as amended: "... those colleges or universities in each State, territory, or possession of the United States, or the District of Columbia, now receiving, or which must hereafter receive, benefits under the Act of July 2, 1862 (known as the First Morrill Act) or the Act of August 30, 1890 (known as the Second Morrill Act), which are commonly known as 'land-grant' universities; institutions now designated or which must hereafter be designated as sea-grant colleges under the Act of October 5, 1966 (known as the National Sea Grant College and Program Act), which are commonly known as sea-grant colleges; Native American land-grant colleges as authorized under the Equity in Educational Land-Grant Status Act of 1994 (7 U.S.C. 301 note); and other United States colleges and universities which— (1) have demonstrable capacity in teaching, research, and extension (including outreach) activities in the agricultural sciences; and (2) can contribute effectively to the attainment of the objectives of this title."

The Title XII university-led FTF IL programs involve multiple partners, principal of which are U.S. universities, working in collaboration with scientists in developing country universities, national and international research centers, the private sector, and non-governmental organizations (NGOs), to jointly pursue scientific investigations to overcome critical agricultural constraints facing today's global food systems. All types of U.S. and non-U.S. entities are eligible as collaborating partners (i.e. sub- recipients or contractors at various tiers), provided that they are not excluded from U.S. Government (USG) acquisition and assistance awards (this may be verified through the Government System). In preparing the application, it is the applicant's responsibility to ensure that no individuals or organizations proposed for participation in the program are excluded by the USG. After award, it is the Recipient's responsibility to ensure that no transactions are conducted with excluded parties.

The lead award for the CETC IL can only be issued to one eligible Title XII institution. However, more than one eligible institution can share the leadership of the CETC IL through a subaward relationship (see Section A.I.V.a. Program Description).

USAID strongly encourages applicants to include qualified (as per the Title XII legislation) Minority Serving Institutions (MSIs) including, but not limited to, Historically Black Colleges and Universities, Predominantly Black Institutions, Hispanic-Serving Institutions, Tribal Colleges and Universities, and Asian American Native Alaskan and Pacific Islander Serving Institutions.

Collaborating partners may be contractors or sub-recipients; applicants must be aware of the distinction between procurement contracts (acquisition) and subawards (assistance). Contracts are subject to 2 CFR 200.318-326 and the USAID standard provision entitled "USAID Eligibility Rules for Goods and Services". Subawards are subject to 2 CFR 200, 2 CFR 700 and the USAID standard provision entitled "Applicability of 2 CFR 200 and 2 CFR 700."

The recipient's and sub-recipients' contractors and subcontractors at all tiers must also meet USAID's supplier nationality requirements. Please note that it is USAID policy that no profit (i.e. any amount in excess of allowable direct and indirect costs) is payable under the prime award or under any sub award (i.e. sub-grants and sub-cooperative agreements, but excluding procurement contracts). However, profit is payable by the prime recipient or a sub-recipient to a contractor/vendor if the recipient or sub-recipient is procuring goods or services in furtherance of the program being supported by the award or subaward. Please refer to the following for additional information: (http://www.usaid.gov/ads/policy/300/303sai).

USAID welcomes applications from eligible institutions which have not previously received financial assistance from USAID.

C.II Cost Sharing or Matching

C.II.a. Leader Award

There is no mandatory level of cost-sharing (matching) for this program but USAID nevertheless encourages cost sharing to the maximum practicable extent. Cost-sharing or matching means that portion of project or program costs not borne by the U.S. Government. Cost sharing includes cash and in- kind contributions, and for U.S. organizations is subject to 2 CFR 200.306 and the USAID standard provision for U.S. NGOs entitled "Cost-Sharing (Matching)", which, inter alia, requires that cost sharing, be verifiable from the Recipient's records. Cost sharing or matching is normally associated with contributions from the same prime and sub-recipient sources that also receive USAID funds under an award, but can include contributions from third parties. Failure to meet a cost sharing requirement can result in the Recipient having to make refunds to USAID or a reduction in future funding. Cost sharing will not have an impact on evaluation.

C.II.b. Associate Awards

Cost sharing requirements, if any, will be established for each Associate Award by the USAID Mission, Bureau or Office that finances the Associate Award.

C.III Other

There is a limit of one application per eligible institution. If two eligible institutions propose to share leadership of the CETC IL, only one of the two institutions can submit an application. USAID does not require and does not encourage exclusivity contracts between proposed key personnel and the applying institution. As such, the proposed key personnel may be listed on more than one application.

C.IV Risk Assessment

For an award to be made, the USAID AO must evaluate risks posed by Applicants as outlined in 2 CFR 200.205 and ADS 303.3.9. This means that the Applicant must possess, or must have the ability to obtain, necessary management and technical competence to conduct the proposed program, and must agree to practice mutually agreed-upon methods of accountability for funds and other assets provided or funded by USAID. In evaluating risks posed by Applicants, the Federal Awarding Agency uses a risk-based approach and must consider:

1. Financial stability;
2. Quality of management systems and ability to meet the management standards prescribed in this part;
3. History of performance. The Applicant's record in managing Federal awards, if it is a prior recipient of Federal awards, including timeliness of compliance with applicable reporting requirements, conformance to the terms and conditions of previous Federal awards, and if applicable, the extent to which any previously awarded amounts will be expended prior to future awards;
4. Reports and findings from audits performed under Subpart F—Audit Requirements of this part or the reports and findings of any other available audits;
5. The Applicant's ability to effectively implement statutory, regulatory, or other requirements imposed on non-Federal entities; and
6. That Applicant is otherwise qualified to receive an award under applicable laws and regulations (i.e. Nondiscrimination, Lobbying, Debarment/Suspension, Terrorist Financing, etc.).

In the absence of a positive risk assessment, an award can ordinarily not be made. Awards to potential new partners may be significantly delayed if USAID must undertake necessary pre-award reviews of these organizations to make an adequate risk assessment. These organizations must take this into account and plan their implementation dates and activities accordingly.

(End of Section C)

SECTION D: APPLICATION AND SUBMISSION INFORMATION

D.I Agency Point of Contact

Name: Leah Leach
Title: Agreement Specialist
Email: lleach@usaid.gov

D.II Questions and Answers

Questions regarding this NOFO should be submitted in writing to the Agency Point of Contact at the email address above no later than the date and time indicated on the cover letter, as amended. Any information given to a prospective applicant concerning this NOFO will be furnished promptly to all other prospective applicants as an amendment to this NOFO, if that information is necessary in submitting applications or if the lack of it would be prejudicial to any other prospective applicant.

D.III Amendments to the NOFO

If this NOFO is amended, all terms and conditions not amended remain unchanged. The AO will do their best to alert Applicants that have already submitted applications that an amendment to the NOFO has been published; however, it is ultimately the responsibility of Applicants to be aware of published amendments to the NOFO through www.grants.gov.

D.IV General Content and Form of Application

D.IV.a. Preparation of Applications

Each applicant must furnish the information required by this NOFO. Applications must be submitted in two separate parts: Technical Application and Business (Cost) Application. This subsection addresses general content requirements applying to the full application. Please see subsections 5 and 6, below, for information on content specific to the Technical and Business (Cost) Applications. The Technical Application must address technical aspects only while the Business (Cost) Application must present the costs, and address risk and other related issues.

Both the Technical and Business (Cost) Applications must include a cover page containing the following information:

- Name of the organization(s) submitting the application;
- Identification and signature of the primary contact person (by name, title, organization, mailing address, telephone number and email address) and the identification of the alternate contact person (by name, title, organization, mailing address, telephone number and email address);
- Program name;
- Notice of Funding Opportunity number;

- Name of any proposed sub-recipients or partnerships (identify if any of the organizations are local organizations, per USAID's definition of 'local entity' under ADS 303[34]; and
- A DUNS number shall be included for each organization listed on the cover page

Any erasures or other changes to the application must be initialed by the person signing the application. Applications signed by an agent on behalf of the applicant must be accompanied by evidence of that agent's authority, unless that evidence has been previously furnished to the issuing office.

Applications must comply with the following:

- USAID will not review any pages in excess of the page limits noted in the subsequent sections. Please ensure that applications comply with the page limitations.
- Written in English.
- Use standard 8 ½" x 11", single sided, single-spaced, 12 point Times New Roman font, 1" margins, left justification and headers and/or footers on each page including consecutive page numbers, date of submission, and applicant's name.
- 10 point font can be used for graphs and charts. Tables however, must comply with the 12 point Times New Roman requirement.
- Submitted via Microsoft Word or PDF formats, except budget files which must be submitted in Microsoft Excel.
- The estimated start date identified in Section B of this NOFO must be used in the cost application.
- The Technical Application must be a searchable and editable Word or PDF format as appropriate.
- The Cost Schedule must include an Excel spreadsheet with all cells unlocked and no hidden formulas or sheets. A PDF version of the Excel spreadsheet may be submitted in addition to the Excel version at the applicant's discretion, however, the official cost application submission is the unlocked Excel version.

Applicants must review, understand, and comply with all aspects of this NOFO. Failure to do so may be considered as being non-responsive and may be evaluated accordingly. Applicants should retain a copy of the application and all enclosures for their records.

D.IV.b. Application Submission Procedures

It is the Applicant's responsibility to ensure that all necessary documentation is complete and received on time no later than the closing date and time indicated on the cover letter, as amended. Late applications may be considered at the discretion of the Agreement Officer. Applicants must retain proof of timely delivery in the form of a system generated document (i.e. delivery receipt).

Applications **must** be submitted by email to lleach@usaid.gov. Applications **must not** be submitted through www.grants.gov. USAID cannot accept emails over 25MB in size. If

[34] https://www.usaid.gov/sites/default/files/documents/303.pdf

Application attachments are in excess of that size, then the Applicant must submit over multiple emails. For an application sent by multiple emails, please indicate in the subject line of the email whether the email relates to the 1) Technical Application or 2) cost/business application. For example, if your cost application is being sent in two emails, the first email should have the subject line which says: "[organization name], Cost/Business Application, Part 1 of 2".

USAID's preference is that the Technical Application and the Business (Cost) Application be submitted as single email attachments, e.g., that the Applicant consolidates the various parts of a Technical Application into a single document before sending. If this is not possible, please provide instructions on how to collate the attachments. USAID will not be responsible for errors in compiling electronic applications if instructions are not provided or are unclear. All applications received by the submission deadline will be reviewed for responsiveness to the NOFO and the application format. No additions or modifications will be accepted after the submission date.

After submitting applications electronically, the Applicant should immediately check for email confirmation that the attachments sent were indeed sent. If there is an error in transmission, please send the material again and note in the subject line of the email that it is a "corrected" submission. Do not send the same email more than once unless there has been a change, and if so, please note that it is a "corrected" email.

D.IV.c. Technical Application Format

The Technical Application should be specific, complete, and presented concisely. The application should take into account the requirements of the program and merit review criteria found in this NOFO.

The Technical Application must not exceed 30 pages, excluding table of contents, attachments, and annexes. Only information specifically requested to be included as an annex will be considered during review for technical merit. Unless otherwise indicated, a page in the Technical Application that contains a table, chart, graph, etc. will be counted as a page within the page limitation. Information that exceeds page limitations will not be furnished to the USAID Merit Review Committee.

All material and information necessary to support the application must be submitted within or annexed to the application. Hyperlinks and references to websites will not be considered part of the submission. Applicants must only reference information on the internet that is of general background knowledge, publicly available, and considered a reliable source of research information; USAID does not guarantee that reviewers on the Merit Review Committee will review such information.

All information that the Applicant thinks is necessary for a reviewer to accurately understand the proposal must be submitted with the application and submitted through the appropriate process as directed in Section D. In addition, the Technical Application must be divided into sections corresponding to, and following the order of, the evaluation criteria set forth in

Section E of this NOFO and as described below. Each section of the Technical Application must be clearly identified, using the title of the appropriate merit review criterion and divided by sub-criteria. This requirement is not intended to prohibit or discourage applicants from submitting technical data in addition to what is required herein and by the evaluation criteria.

1 - Cover Page (See Section D.IV.a above for requirements)
2 - Table of Contents that follows the Technical Application format outlined herein.
3 - Executive Summary (one page) must provide a high-level overview of key elements of the Technical Application.
4 - Technical Application that follows the outline below:

a. Background and Context which includes a discussion of the following:
- i. How crop protection research outputs contribute to the three GFSS objectives;
- ii. The role that research investments have in the management of current and emerging crops threats in supporting global, regional and national food security.

b. Management Approach
- i. *Results Framework and Theory of Change* - This section must include a theory of change and results framework with impact pathways that acknowledge what is and is not within the spheres of control and influence of the CETC Innovation Lab as well as critical assumptions.
- ii. *Approach to Ensure Accountability* - This section should outline how the Applicant will provide program accountability and financial oversight.
  1. Staffing Plan - This should include the qualifications and capabilities of proposed Key Personnel. An organizational chart is required as part of the main body of the application. Applicants must discuss the various types of financial oversight as part of the duties of the appropriate staff member(s) and the composition and responsibilities of the External Advisory Committee.
  2. Monitoring, Evaluation and Learning - This should outline plans for program monitoring and evaluation, knowledge sharing and learning, and communications and outreach.
  3. Management of Associate Awards - This should discuss how the Applicant will be able to accommodate additional funding through Associate Awards and include a plan for expansion of the CETC Innovation Lab to adequately monitor and manage such potential new activities.
  4. Subawardee Engagement Plan (SEP) - The SEP, as described in Section A.IV.e.4., should be included as an annex limited to five pages which *will not count against the Application page limitation*. The SEP should address steps, procedures, and approaches to identify and partner with a diverse range of institutions, with attention to the Title XII interest, including MSIs, civil society, the private sector and local partners.

c. Technical Approach
- i. *Approach to Ensure Scientific Quality* - Extent to which the development, selection, and management of the research portfolio and the draft solicitation ensures high scientific quality of the CETC Innovation Lab.

1. Areas of Inquiry - This should provide the Applicant's overall vision and approach for implementing a global research program that includes a portfolio of high-quality, innovative research activities designed to achieve long-term development impact anong host country beneficiaries.
2. Portfolio Selection - The Applicant should outline a process for selecting a high impact, diverse portfolio (diverse in all aspects with representation across the Areas of Inquiry, PIs, countries, institutions, and cross-cutting issues) to include a strategy for which threats to prioritize, with appropriate conflict of interest safeguards and scientific quality. The draft RFA (as described in Section A.IV.c.2.(ii)) should be included as an annex which *will not count against the Application page limitation*. See (i) General Instructions for the Technical Application below for more detail on the draft RFA content.

ii. *Approach to Ensure Relevance of the Program Portfolio* - This includes linkages with other donors, research institutions, and private sector entities to ensure the relevance of the program portfolio.

1. Global Engagement of the Director - This should discuss the extent to which the qualifications of the proposed Director meet the requirements of the position described in Section A.IV.d.1 and the Applicant's proposed approach to engage global donors and research organizations (e.g. CGIAR centers, regional research oversight bodies, and NAROs).
2. Incorporation of Cross-Cutting Issues - This should discuss the Applicant's approach to integrating meaningful attention to gender, youth and inclusion into the research program.
3. Agricultural Innovation Systems Approach - This should include a plan for strengthening critical capacities and relationships among public research and extension programs, and engagement of private sector enterprises for technology scaling, in order to strengthen a demand-driven focus and increased likelihood of uptake by partners across the research to uptake spectrum.
4. Geographic and Production System Focus - This should outline how target production systems and countries will be selected.

(i) General Instructions for the Technical Application

It is anticipated that the successful application (as may be revised) will become the Program Description for the award resulting from this NOFO. Thus, applications submitted in response to this NOFO must, in addition to being responsive hereto, be written in the active voice and in results-oriented terms in order to address what is proposed to be done, why it is proposed to be done, how it is proposed to be done, who will do it, where it will be done, when it will be done, and the anticipated results and impact.

The Program Description set forth in Section A.IV. of this NOFO describes a range of issues that must be addressed in technical applications which includes both the Applicant's Management Approach and Technical Approach to the CETC Innovation Lab. It is not meant to describe how those issues must be addressed because USAID seeks the expertise of the

Applicant, who must describe in their technical application how they propose to address such issues. In addition, the Program Description in Section A.IV. should not be interpreted as restrictive. Applicants are encouraged to raise and justify other technical issues that may not appear in the Program Description but are, nevertheless, related. As FTF ILs are mandated to benefit both host countries and U.S. agriculture, Applicants are urged to link potential benefits to U.S. agriculture with any proposed research activities and Areas of Inquiry.

The Technical Application must have a definitive strategy and plan, and must set forth in detail the Applicant's approach, methodology, procedures, and techniques for design, management, implementation, and monitoring of the proposed program. The application must also demonstrate the Applicant's capabilities and expertise to successfully implement, manage, and monitor the proposed program. The application must define technical resources, capabilities, and expertise of the applicant's organization and other institution(s) involved, and of the professional personnel proposed. The information presenting capabilities of the implementing organization(s) and of individuals to be assigned must spell-out clearly the pertinent work experience and accomplishments in developing and conducting activities of the type being proposed, as well as the specialized skills, professional competence, academic training, and relevant achievements of the personnel. It is important that the Technical Application furnish verifiable, objective supporting evidence of successful program management, implementation, and monitoring. The Technical Application must be specific, detailed, and include appropriate benchmarks or milestones.

Draft Request for Application (RFA)

The Application should include, in an annex that *will not count against the Application page limitation*, a draft RFA pertaining to one of technical foci as described in Section A.IV., for a FTF focus or Resilience target country, as best illustrates the organization and focus of the proposed program. This must include a one-page introduction, describe the overall solicitation and pre-award process envisioned by the ME, and illustrate how the ME would organize the area of inquiry and cross-cutting issues to ensure the research portfolio within a proposed country is effectively coordinated and integrated across Areas of Inquiry, cross cutting issues and regional activities, as applicable. It must also indicate how the ME will inform prospective subawardees (i.e. transparency and openness) about requirements for training, capacity building, host country involvement, and development impact and to promote USAID Mission and developing country decision-maker engagement in project planning. The draft RFA must include cost formats and evaluation criteria, including how the research applicant will work with the ME to meet the requirement of providing benefit to U.S. agriculture as per the Title XII legislation (Section A.1) .

It must be noted that the majority of research activities will not be selected until after the Management Entity is selected. Thus, USAID seeks to identify the ME best capable to perform the management and oversight of the eventual research portfolio while being able to provide substantial input and guidance to such research.

(ii) Business (Cost) Application Format

The Business (Cost) Application must be submitted separately from the Technical Application. While no page limit exists for the full cost application, applicants are encouraged to be as concise as possible while still providing necessary details. The business (cost) application must illustrate the entire period of performance, using the budget format shown in the SF-424A.

Prior to award, applicants may be required to submit additional documentation deemed necessary for the Agreement Officer to assess the applicant's risk in accordance with 2 CFR 200.206. Applicants should not submit any additional information with their initial application.

The Cost Application must contain the following sections (which are further elaborated below this listing with the letters for each requirement):

1. **Cover Page** (See Section D.IV.a above for requirements)
2. **SF 424 Form(s)** The Applicant must sign and submit the cost application using the SF-424 series. Standard Forms can be accessed electronically at www.grants.gov or using the following links:

Instructions for SF-424	http://www.grants.gov/web/grants/form-instructions/sf-424-instructions.html
Application for Federal Assistance (SF-424)	https://www.grants.gov/web/grants/forms/sf-424-family.html
Instructions for SF-424A	http://www.grants.gov/web/grants/form-instructions/sf-424a-instructions.html
Budget Information (SF-424A)	https://www.grants.gov/web/grants/forms/sf-424-family.html
Instructions for SF-424B	http://www.grants.gov/web/grants/form-instructions/sf-424b-instructions.html
Assurances (SF-424B)	https://www.grants.gov/web/grants/forms/sf-424-family.html

Failure to accurately complete these forms could result in the rejection of the application.

D.IV.d. Required Certifications and Assurances

The applicant must complete the following documents and submit a signed copy with their application:

a) "Certifications, Assurances, Representations, and Other Statements of the Recipient" document found at http://www.usaid.gov/sites/default/files/documents/1868/303mav.pdf
b) Assurances for Non-Construction Programs (SF-424B)
c) Certificate of Compliance: Please submit a copy of your Certificate of Compliance if your organization's systems have been certified by USAID/Washington's Office of Acquisition and Assistance (M/OAA).

D.IV.e. Budget and Budget Narrative

The Budget must be submitted as one unprotected Excel file (MS Office 2000 or later versions) with visible formulas and references and must be broken out by project year, including itemization of the federal and non-federal (cost share) amount. Files must not contain any hidden or otherwise inaccessible cells. Budgets with hidden cells lengthen the cost analysis time required to make an award, and may result in a rejection of the cost application. The Budget Narrative must contain sufficient detail to allow USAID to understand proposed costs. The Applicant must ensure budgeted costs address any additional requirements identified in Section F, such as Branding and Marking. The Budget Narrative must be thorough, including sources for costs to support USAID's determination that proposed costs are fair and reasonable.

The Budget must include the following worksheets or tabs, and contents, at a minimum:

- Summary Budget, inclusive of all program costs (federal and non-federal), broken out by major budget category and by year for activities implemented by the applicant and any potential sub-applicants for the entire period of the program.
- Detailed Budget, including a breakdown by year, sufficient to allow the Agency to determine that the costs represent a realistic and efficient use of funding to implement the applicant's program and are allowable in accordance with the cost principles found in 2 CFR 200 Subpart E.
- Detailed Budgets for each sub-recipient, for all federal funding and cost share, broken out by budget category and by year, for the entire implementation period of the project.

The Detailed Budget must contain the following budget categories and information, at a minimum:

1. **Salaries and Allowances** – Must be proposed consistent with 2 CFR 200.430 Compensation - Personal Services. The applicant's budget must include position title, salary rate, level of effort, and salary escalation factors for each position. Allowances, when proposed, must be broken down by specific type and by position. Applicants must explain all assumptions in the Budget Narrative. The Budget Narrative must demonstrate that the proposed compensation is reasonable for the services rendered and consistent with what is paid for similar work in other activities of the applicant. Applicants must provide their established written policies on personnel compensation. If the applicant's written policies do not address a specific element of compensation that is being proposed, the Budget Narrative must describe the rationale used and supporting market research.

2. **Fringe Benefits** – (if applicable) If the Applicant has a fringe benefit rate approved by an agency of the U.S. Government, the Applicant must use such rate and provide evidence of its approval. If an Applicant does not have a fringe benefit rate approved, the Applicant must propose a rate and explain how the Applicant determined the rate. In this case, the Budget Narrative must include a detailed breakdown comprised of all items of fringe benefits (e.g., superannuation, gratuity, etc.) and the costs of each, expressed in U.S. dollars and as a percentage of salaries.

3. **Travel and Transportation** – Provide details to explain the purpose of the trips, the number of trips, the origin and destination, the number of individuals traveling, and the duration of the trips. Per Diem and associated travel costs must be based on the applicant's normal travel policies. When appropriate please provide supporting documentation as an attachment, such as company travel policy, and explain assumptions in the Budget Narrative.

4. **Procurement or Rental of Goods (Equipment & Supplies), Services, and Real Property** – Must include information on estimated types of equipment, models, supplies and the cost per unit and quantity. The Budget Narrative must include the purpose of the equipment and supplies and the basis for the estimates. The Budget Narrative must support the necessity of any rental costs and reasonableness in light of such factors as: rental costs of comparable property, if any; market conditions in the area; alternatives available; and the type, life expectancy, condition, and value of the property leased.

5. **Subawards** – Specify the budget for the portion of the program to be passed through to any subrecipients. See 2 CFR 200.331 for assistance in determining whether the sub-tier entity is a subrecipient or contractor. The subrecipient budgets must align with the same requirements as the applicant's budget, including those related to fringe and indirect costs.

6. **Other Direct Costs** – This may include other costs not elsewhere specified, such as report preparation costs, passports and visas fees, medical exams and inoculations, as well as any other miscellaneous costs which directly benefit the program proposed by the applicant. The Applicant should indicate the subject, venue and duration of any proposed conferences and seminars, and their relationship to the objectives of the program, along with estimates of costs. Otherwise, the narrative should be minimal.

7. **Indirect Costs** – Applicants must indicate whether they are proposing indirect costs or will charge all costs directly. In order to better understand indirect costs please see Subpart E of 2 CFR 200.414. The application must identify which approach they are requesting and provide the applicable supporting information. Below are the most commonly used Indirect Cost Rate methods:
   Method 1 - Direct Charge Only
   Eligibility: Any Applicant. Initial Application Requirements: See above on direct costs
   Method 2 - Negotiated Indirect Cost Rate Agreement (NICRA)
   Eligibility: Any Applicant with a NICRA issued by a USG Agency must use that NICRA. Initial Application Requirements: If the Applicant has a current NICRA, submit your approved NICRA and the associated disclosed practices. If your NICRA was issued by an Agency other than USAID, provide the contact information for the approving Agency. Additionally, at the Agency's discretion, a provisional rate may be set forth in the award subject to audit and finalization. See USAID's Indirect Cost Rate Guide for Non Profit Organizations for further guidance.
   Method 3 - De minimis rate of 10% of modified total direct costs (MTDC)

Eligibility: Any Applicant that has never received a NICRA. Initial Application Requirements: Costs must be consistently charged as either indirect or direct costs, but may not be double charged or inconsistently charged as both. If chosen, this methodology once elected must be used consistently for all Federal awards until such time as a non-Federal entity chooses to negotiate an indirect rate, which the non-Federal entity may apply to do at any time. The Applicant must describe which cost elements it charges indirectly vs. directly. See 2 CFR 200.414(f) for further information.

Method 4 - Indirect Costs Charged As A Fixed Amount

Eligibility: Non U.S. non-profit organizations without a NICRA may request, but approval is at the discretion of the AO.

Initial Application Requirements: Provide the proposed fixed amount and a worksheet that includes the following:

- Total costs incurred by the organization for the previous fiscal year and estimates for the current year.
- Indirect costs (common costs that benefit the day-to-day operations of the organization, including categories such as salaries and expenses of executive officers, personnel administration, and accounting, or that benefit and are identifiable to more than one program or activity, such as depreciation, rental costs, operations and maintenance of facilities, and telephone expenses) for the previous fiscal year and estimates for the current year
- Proposed method for prorating the indirect costs equitably and consistently across all programs and activities of using a base that measures the benefits of that particular cost to each program or activity to which the cost applies.

If the Applicant does not have an approved NICRA and does not elect to utilize the 10% de minimis rate, the Agreement Officer will provide further instructions and may request additional supporting information, including financial statements and audits, should the application still be under consideration after the merit review. USAID is under no obligation to approve the applicant's requested method.

8. **Prior Approvals in accordance with 2 CFR 200.407** - Inclusion of an item of cost in the detailed application budget does not satisfy any requirements for prior approval by the Agency. If the Applicant would like the award to reflect approval of any cost elements for which prior written approval is specifically required for allowability, the Applicant must specify and justify that cost. See 2 CFR 200.407 for information regarding which cost elements require prior written approval.

9. **Approval of Subawards -** The Applicant must submit information for all subawards that it wishes to have approved at the time of award. For each proposed subaward, the Applicant must provide the following:
    - Name of organization,
    - DUNS Number,
    - Confirmation that the subrecipient does not appear on the Treasury Department's Office of Foreign Assets Control (OFAC) list,

- Confirmation that the subrecipient does not have active exclusions in the System for Award Management (SAM),
- Confirmation that the subrecipient is not listed in the United Nations Security designation list,
- Confirmation that the subrecipient is not suspended or debarred,
- Confirmation that the Applicant has completed a risk assessment of the subrecipient, in accordance with 2 CFR 200.332, and
- Any negative findings as a result of the risk assessment and the applicant's plan for mitigation.

D.IV.f. DUNS, Bradstreet and SAM Requirements

USAID may not award to an applicant unless the applicant has complied with all applicable unique entity identifier (DUNS number) and System for Award Management (SAM) requirements. Each applicant (unless the applicant is an individual or Federal awarding agency that is exempted from requirements under 2 CFR 25.110(b) or (c), or has an exception approved by the Federal awarding agency under 2 CFR 25.110(d)) is required to:

1. Provide a valid DUNS number for the applicant and all proposed sub-recipients;
2. Be registered in SAM before submitting its application. SAM is streamlining processes, eliminating the need to enter the same data multiple times, and consolidating hosting to make the process of doing business with the government more efficient (www.sam.gov).
3. Continue to maintain an active SAM registration with current information at all times during which it has an active Federal award or an application or plan under consideration by a Federal awarding agency.

The registration process may take many weeks to complete. Therefore, applicants are encouraged to begin the process early. If an applicant has not fully complied with the requirements above by the time USAID is ready to make an award, USAID may determine that the applicant is not qualified to receive an award and use that determination as a basis for making an award to another applicant.

DUNS number: http://fedgov.dnb.com/webform
SAM registration: http://www.sam.gov

Non-U.S. applicants can find additional resources for registering in SAM, including a Quick Start Guide and a video on how to obtain an NCAGE code, on www.sam.gov, navigate to Help, then to International Registrants.

D.IV.g. History of Performance and Evidence of Positive Risk Assessment

The Applicant must provide information in order to permit the Agreement Officer to make a risk assessment. Specifically, the Applicant must provide statements and evidence in support of the categories outlined in Section C.IV.

Additionally, the Applicant must provide information regarding its recent history of performance for all its cost-reimbursement contracts, grants, or cooperative agreements involving similar or related programs, not to exceed five projects as follows:

- Name of the Awarding Organization;
- Award Number;
- Activity Title;
- A brief description of the activity;
- Period of Performance;
- Award Amount;
- Reports and findings from any audits performed in the last three years; and
- Name of at least two (2) updated professional contacts who most directly observed the work at the organization for which the service was performed with complete current contact information including telephone number, and e-mail address for each proposed individual.

If the Applicant encountered problems on any of the referenced Awards, it may provide a short explanation and the corrective action taken. The Applicant should not provide general information on its performance. USAID reserves the right to obtain relevant information concerning an Applicant's history of performance from any sources and may consider such information in its review of the applicant's risk. The Agency may request additional information and conduct a pre-award survey if it determines that it is necessary to inform the risk assessment.

D.IV.h. Branding Strategy and Marking Plan

The applicant is required to comply (and ensure compliance by partners) with USAID's branding and marking requirements set forth in 2 CFR 700.16 with Feed the Future specific guidance located at feedthefuture.gov. This NOFO incorporates the clauses: "Branding Strategy – Assistance (June 2012)" and "Marking Plan – Assistance (June 2012)" in their entirety and located at: https://www.usaid.gov/sites/default/files/documents/1868/303mba.pdf

D.IV.i. Funding Restrictions

USAID policy is not to award profit under assistance instruments. In accordance with 2 CFR 200.400(g) and 2 CFR 700.13, no funds under the award resulting from this NOFO will be paid as profit to any recipient or sub recipient. Profit is any amount in excess of allowable direct and indirect costs. This does not preclude payment of profit to the recipient's or sub-recipients' vendors (contractors) under procurement contracts and subcontracts for the acquisition of goods and services, which are subject to 2 CFR 200 and 2 CFR 700, as well as the USAID standard provision entitled "USAID Eligibility Rules for Goods and Services." Also see http://www.usaid.gov/ads/policy/300/303sai.

However, all reasonable, allocable and allowable expenses, both direct and indirect, which are related to the agreement program and are in accordance with applicable cost principle under 2 CFR 200 Subpart E of the Uniform Administrative Requirements must be paid under the anticipated award.

Construction is not authorized under this award.

USAID will not allow the reimbursement of pre-award costs under this award without the explicit written approval of the Agreement Officer.

Except as may be specifically approved in advance by the AO, all commodities and services that will be reimbursed by USAID under this award must be from the authorized geographic code specified in Section B.4 of this NOFO and must meet the source and nationality requirements set forth in 22 CFR 228.

D.IV.j. Conflict of Interest Pre-Award Term

Personal Conflict of Interest

An actual or appearance of a conflict of interest exists when an applicant organization or an employee of the organization has a relationship with an Agency official involved in the competitive award decision-making process that could affect that Agency official's impartiality. The term "conflict of interest" includes situations in which financial or other personal considerations may compromise, or have the appearance of compromising, the obligations and duties of a USAID employee or recipient employee.
The applicant must provide conflict of interest disclosures when it submits an SF-424. Should the applicant discover a previously undisclosed conflict of interest after submitting the application, the applicant must disclose the conflict of interest to the AO no later than ten (10) calendar days following discovery.

Organizational Conflict of Interest

The applicant must notify USAID of any actual or potential conflict of interest that they are aware of that may provide the applicant with an unfair competitive advantage in competing for this financial assistance award. Examples of an unfair competitive advantage include but are not limited to situations in which an applicant or the applicant's employee gained access to non-public information regarding a federal assistance funding opportunity, or an applicant or applicant's employee was substantially involved in the preparation of a federal assistance funding opportunity. USAID will promptly take appropriate action upon receiving any such notification from the applicant.

(End of Section D)

SECTION E: APPLICATION REVIEW INFORMATION

E.I Review and Selection Process

Merit Review

Applications will be evaluated in accordance with the criteria set forth in Section E. After evaluation of the applications, either: (1) award(s) will be made without negotiations; or (2) if deemed necessary or desirable by USAID, written and/or verbal negotiations will be conducted with applicants that submit the most highly rated applications. USAID hopes to evaluate applications and award a cooperative agreement(s) without negotiations with applicants. Therefore, the Applicant's initial application should contain the Applicant's best terms.

After the conclusion of any such negotiations, Applicants with whom negotiations were conducted will, unless otherwise advised, be required to submit a revised application or addendum to the initial application, which will be re-evaluated against the criteria set forth in Section E. It is expected that award will ordinarily be made after the first round of any such discussions and revised applications/addenda; however, USAID reserves the right to conduct subsequent rounds of discussions and revised applications/addenda, and to further limit the number of Applicants with which such subsequent discussions would be conducted and from which a subsequent round of revised applications/addenda would be requested.

USAID intends to award a cooperative agreement(s) resulting from this NOFO to the responsible Applicant whose application, application modification(s), and/or revised application(s)/addendum(s) represents the greatest value to USAID based on the evaluation of applications in accordance with the evaluation criteria set forth in Section E.

The AO will make the final decision as to which institution(s), if any, will be awarded a cooperative agreement based on the determination of the Selection Committee, the cost/management evaluation, and whether the applying institutions are eligible to receive the award.

Business/Cost Review

The Agency will evaluate the cost application of the applicant(s) under consideration for an award as a result of the merit criteria review to determine whether the costs are allowable in accordance with the cost principles found in 2 CFR 200 Subpart E.

The Agency will also consider (1) the extent of the applicant's understanding of the financial aspects of the program and the applicant's ability to perform the activities within the amount requested; (2) whether the applicant's plans will achieve the program objectives with reasonable economy and efficiency; and (3) whether any special conditions relating to costs should be included in the award.

Proposed cost share, if provided, will be reviewed for compliance with the standards set forth in 2 CFR 200.306, 2 CFR 700.10, and the Standard Provision "Cost Sharing (Matching)" for U.S. entities, or the Standard Provision "Cost Share" for non-U.S. entities.

The AO will perform a risk assessment (2 CFR 200.206). The AO may determine that a pre-award survey is required to inform the risk assessment in determining whether the prospective recipient has the necessary organizational, experience, accounting and operational controls, financial resources, and technical skills – or ability to obtain them – in order to achieve the objectives of the program and comply with the terms and conditions of the award. Depending on the result of the risk assessment, the AO will decide to execute the award, not execute the award, or award with "specific conditions" (2 CFR 200.207).

E.II Review Criteria

USAID will conduct a merit review of all applications received that comply with the instructions in this NOFO. Applicants must note that these criteria serve to: (a) identify the significant matters which applicants must address in their applications; and (b) set the standard against which all applications will be evaluated. To facilitate the review of the applications, **Applicants must organize their narrative sections of the Technical Application in the same order as the selection criteria**. Applications will be reviewed and evaluated in accordance with the following criteria. Factors 2 and 3 are weighted equally. Factor 1 is of lesser weight. All sub-factors are weighted equally, i.e. sub-factor 1(a) equals sub-factor 1(b), 2(a) equals 2(b), etc.

Factor 1	**Background and Context**
Sub-factor 1(a)	Contribution of research outputs to GFSS objectives
Sub-factor 1(b)	Relationship of research investment to food security
Factor 2	**Management Approach**
Sub-factor 2(a)	Results Framework and Theory of Change
Sub-factor 2(b)	Approach to Ensure Accountability
Factor 3	**Technical Approach**
Sub-factor 3(a)	Approach to Ensure Scientific Quality
Sub-factor 3(b)	Approach to Ensure Relevance of Portfolio

Evaluation Factor Descriptions

The Applicant's Technical Application will be evaluated on the effectiveness of addressing the following Factors, as described below.

Factor 1: Background and Context - The Applicant's demonstrated understanding of:

- *Sub-factor 1(a) - Contribution of research outputs to GFSS Objectives* - How the proposed research and local capacity development program contributes to agriculture-led economic development, strengthen resilience among people and systems, and a well nourished population, especially among women and children.
- *Sub-factor 1(b) - Relationship of research investments to food security* - The role that research investments have in the management of current and emerging crop threats in supporting global, regional and national food security.

Factor 2: Management Approach - The overall vision and approach for implementing a global research program that includes the following:

- *Sub-factor 2(a) - Results Framework and Theory of Change* - Relevant theory of change which describes impact pathways with an accompanying results framework or logic model, with performance indicators.
- *Sub-factor 2(b) - Approach to Ensure Accountability* - The adequacy of the following to provide program accountability and financial oversight:
    - Staffing Plan - Qualifications and capabilities of proposed Key Personnel; adequacy of organizational chart and duties of appropriate staff to include financial oversight; and composition of the Advisory Committee.
    - Monitoring, Evaluation and Learning - Plans for program monitoring and evaluation, knowledge sharing and learning, and communications and outreach.
    - Management of Associate Awards - Process for accommodating additional funding through Associate Awards and the plan for expansion of the CETC Innovation Lab to adequately monitor and manage such potential new activities.
    - Subawardee Engagement Plan - Diversity of research partners identified, including MSIs; commitments received from these partners; and plans for identifying additional partners.

Factor 3: Technical Approach

- *Sub-factor 3(a) - Approach to Ensure Scientific Quality* - Extent to which the development and selection of the research portfolio and the draft RFA ensures high scientific quality of the CETC Innovation Lab. This is based on:
    - Areas of Inquiry - Overall vision and approach for implementing a global research program that includes a portfolio of high-quality, innovative research activities designed to achieve long-term development impact anong host country beneficiaries.
    - Portfolio Selection - Process for selecting a high impact, diverse portfolio (diverse in all aspects with representation across the Areas of Inquiry, PIs, countries, institutions, and cross-cutting issues) to include a strategy for which threats to prioritize, with appropriate conflict of interest safeguards and scientific quality.
- *Sub-factor 3(b) - Approach to Ensure Relevance of Portfolio* - Extent to which linkages with other donors, research institutions, and private sector entities ensure the relevance of the program portfolio.
    - Global Engagement of the Director - Qualifications of the proposed Director meet the requirements of the position; proposed approach to engage global donors and research organizations.

- Incorporation of Cross-Cutting Issues - Approach to integrating meaningful attention to gender, youth and inclusion into the research program.
- Agricultural Innovation Systems Approach - Approach to strengthening critical capacities and relationships among public research and extension programs, and engagement of private sector enterprises for technology scaling, in order to strengthen a demand-driven focus and increased likelihood of uptake by partners across the research to uptake spectrum.
- Geographic and Production System Focus - How target production systems and countries will be selected and justified.

(End of Section E)

SECTION F: FEDERAL AWARD ADMINISTRATION INFORMATION

F.I Federal Award Notices

The Leader Award is anticipated to be made by August 30, 2021.

Award of the agreement contemplated by this NOFO cannot be made until funds have been appropriated, allocated and committed through internal USAID procedures. While USAID anticipates that these procedures will be successfully completed, potential applicants are hereby notified of these requirements and conditions for the award. The AO is the only individual who may legally commit the U.S. Government to the expenditure of public funds. No costs chargeable to the proposed Agreement may be incurred before receipt of either a fully executed Agreement or a specific, written authorization from the AO.

Although an earlier notification may be provided to Applicants regarding their recommended selection for an award, only an award signed by the USAID AO will constitute the USAID commitment of the selection of the Applicant. USAID may, at its sole discretion, provide the award to the successful Applicant's designated point of contact in hardcopy originals, by fax, or electronically. The signed award will authorize the selected Applicant to begin implementation of the activities described in their Technical Applications or revised Technical Applications/Addenda, and will obligate funds for payment to the recipient of the award for costs incurred in such implementation. The AO may authorize the selected Applicant(s), at its sole risk, to begin implementation and the incurrence of costs prior to a signed award as of a specified date, with no commitment to reimburse costs in the event that the award is not subsequently signed.

Unsuccessful Applicants will be notified of their non-selection after the award has been made. Within 10 working days after an Applicant receives notice that USAID will not fund its application, the unsuccessful Applicant may send a written request for additional information to the AO. This information may be provided at the discretion of the AO orally or in writing. To the maximum extent practicable, the AO will respond to the request within 30 days or inform the Applicant that more time is necessary. If a response is granted, it will be limited to the Agency's interest in supporting the Applicant's program as described in the application without comparison of one Applicant to another. Only additional information that would be useful to the Applicant in future application preparation must be provided.

F.II Administrative and National Policy Requirements

The resulting award from this NOFO will be administered in accordance with the following policies and regulations.

For US organizations: **ADS 303**, **2 CFR 700**, **2 CFR 200** and **Standard Provisions for U.S. Non-governmental organizations**.

For Non U.S. organizations who serve as Innovation Lab subawardees: **Standard Provisions for Non-U.S. Non-governmental Organizations**.

See Annex 4 for a list of the Standard Provisions that will be applicable to any awards resulting from this NOFO.

F.III Reporting Requirements

F.III.a. Financial Reporting

Financial reporting requirements will depend on the method of payment. In accordance with 2 CFR 700, advance payments will be provided if the recipient meets the standards for financial management systems in 2 CFR 700. Recipients will comply with the financial reporting requirements set forth in 2 CFR 200 and 2 CFR 700. If advance payments are provided, reporting periods are calendar quarters or parts thereof. Quarterly financial reports are due not later than 30 days after the end of each calendar quarter. The final financial report is due not later than 90 days after the estimated completion date of the award. If payment is on a reimbursement basis, financial reports may be submitted monthly, but not less frequently than 30 days after the end of each calendar quarter. The final financial report is due not later than 90 days after the estimated completion date of the award. The Recipient shall also comply with the USAID standard provision entitled "Reporting Host Government Taxes." For more information, please see ADS 303.

The Recipient must submit to the AOR an estimate of quarterly accruals at least 2 weeks prior to the end of each financial quarter. The Recipient must submit a completed Standard Form SF-425 to the AOR no later than 30 days after the end of each financial quarter.

F.III.b. Performance Reporting

The Recipient must electronically submit all performance reports to the AOR. Once approved by the AOR, all reports must be submitted to the USAID Development Experience Clearinghouse (DEC) at http://dec.usaid.gov. Occasionally, a report will contain sensitive information such as data not yet ready for release to the general public or otherwise embargoed information. In such an event, the AOR will work with the Recipient to either 1) approve an interim, edited version that can be submitted to the DEC until the full report can be released publicly or 2) approve a delay of a reasonable amount of time for submission to the DEC. Evaluations, whether conducted by the Recipient, USAID, or other entity contracted to perform the evaluation, must also be submitted to the DEC.

All country-level and global research activities implemented under the Leader Award must be included in the performance reports. The AOR will send a draft template of the performance reports near the end of each designated reporting period, but in general, the performance reports will consist of Semi-Annual Reports, Annual Reports, the Final Report, data entry of reported results into the Development Information Solution[35] (DIS) portal, and more detailed

[35] https://www.usaid.gov/work-usaid/resources-for-partners/development-information-solution

reporting on FTF EG. 3.2-7 indicator in the Research Rack Up (see Section F.III.b.(iii)). Regardless of the program start date, the program is requested to align to reporting periods in the sections below unless the period is less than two months in which case the first required report is waived and the information added to the following report.

(i) Semi-Annual Reports

Semi-Annual Reports covering the period October 1 through March 31 must be submitted not later than 30 days after the end of the reporting period. The reports are to follow the draft template sent by the AOR but generally include the following sections: Research Progress Summary, Local Capacity Development, Innovation Transfer and Scaling Partnerships, and Future Work.

In accordance with 2 CFR 200.328, the semi-annual reports must be concise and also present the following information:

- A comparison of actual accomplishments with the goals and objectives established for the period, the findings of the investigator, or both. Whenever appropriate, and when the output of programs or projects can be readily quantified, such quantitative data must be related to cost data for computation of unit costs.
- Progress made toward established benchmarks and result indicators of development impact, as discussed in the program description of this NOFO and detailed in the Recipient's Activity MEL Plan.
- Progress made on each discrete research activity.
- Reasons why established goals were not met, if appropriate.
- Other pertinent information including, when appropriate, analysis and explanation of cost overruns or high unit costs.
- In addition, qualitative descriptions of success stories and achievements to illustrate impacts of the program must be included when possible. At the conclusion of each research activity, at least one success story and achievements must be submitted for that activity. Efforts must be made to continue following the results of the achievements each reporting period until the end of the Innovation Lab.
- Summary information on capacity training investments to include, but not limited to, number of Ph.D. candidates and M.Sc. candidates, candidates' countries of origin, and institutional affiliations during training (U.S. host institution and host country partner institution(s) involved in student training).
- A list of all peer reviewed journal articles published during the reporting period.

(ii) Annual Reports

Annual Reports covering the period October 1 through September 30 must be submitted not later than 60 days after the end of the reporting period. The reports are to follow the draft outline sent by the AOR but generally will include the following sections: Title Page, ME Information, Technical and/or Advisory Committee Information, Map or List of Countries Where Working, List of Program Partners, Acronyms, Glossary, Table of Contents, Executive Summary, Program Activities and Highlights, Key Accomplishments, Research Program Overview and Structure, Research Project Reports, Associate Award Research Project Reports,

Local Capacity Development, Innovation Transfer and Scaling Partnerships, updates on EMMP and Open Data Management Plan progress, Governance and ME Activities, Other Topics, Issues, Future Directions, and required Appendices.

(iii) Research Rack Up

In order to supplement research output data reported against the Feed the Future indicator (EG.3.2-7, New Technologies and Practices Developed)[36] into the DIS on research outputs (i.e. technologies, practices and approaches), the Recipient will be required to annually submit more detailed data into the Research Rack Up[37] data collection tool. The Research Rack Up curates descriptive information on research outputs to: a) report progress and impact; b) facilitate uptake by key technology scaling partners; and, c) create the evidence needed to inform innovation-related strategies and priorities in alignment with the goals of the Global Food Security Strategy.

(iv) Final Performance Report

The Final Performance Report will replace the last Semi-Annual or Annual Report and must include the information described in Section F.III.b.(i.) and (ii) above. The Final Performance Report must include the following sections: Title Page, Executive Summary, Program Partners, Program Goals and Objectives, Overview of Activities, Accomplishments, Utilization of Research Outputs, Future Challenges and Opportunities. The exact format and page limit will be determined by the AOR. The Final Performance Report must incorporate the findings and results that were included in previous Annual Reports and is due no later than 90 days after the completion, expiration, or termination of the award. The AOR may provide additional or alternative instructions as to the format and content requested of the Final Performance Report.

F.III.c. Other Reports and Required Submissions

F.III.c.1 Branding Strategy and Marking Plan

The Applicant is required to comply (and ensure compliance by partners) with USAID's branding and marking requirements set forth in 2 CFR 700.16 with Feed the Future specific guidance located at feedthefuture.gov.

These regulations and provisions include the requirement for the Apparently Successful Applicant to submit a Branding Strategy and Marking Plan for pre-award review, negotiation, and approval by the AO. Under these regulations and provisions, the Branding Strategy and Marking Plan does not need to be submitted until the Applicant is notified by the AO that it is the Apparently Successful Applicant, and is requested to submit the Branding Strategy and

[36] Feed the Future Indicator Handbook, https://www.agrilinks.org/sites/default/files/ftf-indicator-handbook-march-2018-508.pdf

[37] Feed the Future Research Rack Up Data Collection Tool Manual, https://drive.google.com/file/d/1eeDSu7PPoWsq76gt2l-aPaDFc0vgosAq/view

Marking Plan by a time specified by the AO. Thus, the initial Cost/Management Application is not required to include a Branding Strategy and Marking Plan.

Nevertheless, Applicants are encouraged, but are not required, to submit their Branding Strategy and Marking Plan with their initial Cost/Management Applications. Applicants who choose not to include their Branding Strategy and Marking Plan with their initial Cost/Management Application will not be penalized during the evaluation process but must be aware that, if the Applicant is the Apparently Successful Applicant, the Applicant will be required to submit an acceptable Branding Strategy and Marking Plan as a prerequisite for any resulting award. This would delay any such award, pending receipt, review, and, if necessary, negotiation of the Applicant's Branding Strategy and Marking Plan, with failure to submit or negotiate a Branding Strategy and Marking Plan within the time specified by the AO making the Apparently Successful Applicant ineligible for award. Moreover, because USAID's branding and marking requirements have cost implications, such costs must be included in the detailed budget (see Section D.IV. (vi)), even if the applicant does not submit its Branding Strategy and Marking Plan with the initial cost/management application.

Failure to submit or negotiate a Branding Strategy and Marking Plan within the time specified by the AO will make the Apparently Successful Applicant ineligible for award.

The proposed Branding Strategy and Marking Plan will not be evaluated competitively. The AO will review for adequacy the proposed Branding Strategy and Marking Plan, and will negotiate, approve, and include the Branding Strategy and Marking Plan in the award.

F.III.c.2 Annual Work Plans

The Recipient will be required to submit annual work plans, covering the period October 1 through September 30 (or parts thereof), which describe all activities planned for the year, including activities planned under Associate Awards to the extent known at the time; the site(s) where they will be conducted, benchmarks/milestones and annual performance targets; the outputs/outcomes which the Recipient expects to achieve; and the input/support planned to be provided by the Recipient, during the work plan period. Included must be an explanation of how those inputs are expected to achieve the outputs/outcomes and benchmarks/milestones. The Recipient must describe and use appropriate methodologies to integrate and address all cross-cutting issues, local capacity development, and private sector engagement. The work plans must include geographic data collection, geographic analysis, and data submission methods as a separate section.

The first-year work plan will include the environmental documentation that must be required by the approved Regulation 216 environmental documentation (see Section F.V Environmental Compliance). An Environmental Mitigation and Monitoring Plan (EMMP), Pesticide Evaluation Report and Safer Use Action Plan (PERSUAP), or other document which is approved by USAID as a requirement of the approved Regulation 216 environmental documentation will be integrated into subsequent-year annual work plans, making any necessary adjustments to activity implementation in order to minimize adverse impacts to the environment.

The annual work plan for the first year will be submitted no later than 60 days after the effective date of the award. Annual work plans for subsequent years must be submitted no later than 60 days prior to the start of that year. As indicated in Section B.III of this NOFO annual work plans and significant revisions thereto are subject to USAID approval.

A first year Data Management Plan is also required at the time of the submission of the first year work plan. The work plans will describe activities to be conducted at a greater level of detail than the Program Description of the award, but must be cross-referenced with the applicable sections in the Program Description. All work plan activities must be within the scope and objectives of the award. Work plans must not change such scope and objectives or any other terms and conditions of the award in any way; such changes must only be approved by the AO, in advance and in writing. Thereafter, if there are inconsistencies between the work plan and the Program Description or other terms and conditions of the award, the latter will take precedence over the work plan.

Additional information on the annual work plans, Activity MEL Plan, and periodic reports will be provided to the ME after award. Applicants are suggested to review the document "Guidance to New Research Programs"[38].

F.III.c.3 Evaluation

The CETC Innovation Lab will be subject to a performance evaluation, typically during the fourth year of the program, per USAID's evaluation policy. USAID will arrange for and support the cost of the external evaluation outside of the award resulting from this NOFO. The ME and individual subaward activities must support the evaluation efforts by coordinating access to project researchers and facilities, arranging (but not paying for) local transportation and hotels for external evaluators (if needed), continued salary support of researchers and staff during the evaluation, and travel and per diem costs of activity researchers and staff during the evaluation. If any subaward activity to be evaluated has already closed, the ME must arrange logistics associated with a site visit, and as agreed by the evaluation team, the ME must support the participation of the Primary Investigator and any appropriate collaborators to participate in the evaluation, such as covering the cost of transportation. Similarly, if any staff member from the ME is a part of the evaluation team, the ME must support the travel and per diem costs from the ME budget. The evaluation will assess the following: (1) the research program performance, (2) the capacity building efforts, and (3) overall management.

The performance evaluation will evaluate the implementation of the global research program, including incorporation of the core program components; the quality and progress of the research; the achievement of development targets; the degree to which the research activities achieve integration and are relevant to development in the host countries and more broadly; and overall progress on agreed-upon measurable research, training, outreach/dissemination, knowledge and technology hand-off, and institutional strengthening results of the program.

[38] https://drive.google.com/file/d/1_44gwMHWE4tHQ7jnK2fioJgAd5MC9HlX/view

It will also evaluate the administrative and management effectiveness of the ME, including the relationship between the ME and sub-recipients/partners; the relationship and communication with USAID Washington and Missions; and the outreach and intellectual leadership activities undertaken by the ME.

The performance evaluation is distinct from, but will complement, any impact assessment activities undertaken by USAID that examine the CETC Innovation Lab's impact.

F.III.c.4 Comprehensive Activity Monitoring Evaluation and Learning Plan

The Recipient will be required to submit a comprehensive Activity MEL Plan within 60 days after the award is made. The Activity MEL Plan, which describes the program over the life of the project, will be submitted at the same time as the first-year work plan. As indicated in Section B.III, the Activity MEL Plan and significant revisions thereto are subject to USAID approval. More detail on the Activity MEL Plan is available in Annex 3.

F.IV Program Income

Any program income generated under the award will be added to USAID funding (and any cost sharing that will be provided) and used for program purposes. Program income will be subject to 2 CFR 200.307.

F.V Environmental Compliance

Section 117 of the Foreign Assistance Act of 1961, as amended, requires that the impact of USAID's activities on the environment be considered and that USAID include environmental sustainability as a central consideration in designing and carrying out its development programs. This mandate is codified in 22 CFR 216 and in USAID's Automated Directives System (ADS) Parts 201.5.10g and 204, which, in part, require that the potential environmental impacts of USAID-financed activities are identified prior to a final decision to proceed and that appropriate environmental safeguards are adopted for all activities. The environmental compliance obligations of the Recipient of the award resulting from this NOFO under these regulations and procedures are specified in the following paragraphs.

1. In addition to following U.S. federal environmental regulations and restrictions, the Recipient must comply with host country environmental regulations unless otherwise directed in writing by USAID. In case of conflict between host country and USAID regulations, the latter will govern.
2. No activity funded under the award resulting from this NOFO must be implemented unless an environmental threshold determination, as defined by 22 CFR 216, has been reached for that activity, as documented in a Request for Categorical Exclusion (RCE), Initial Environmental Examination (IEE), or Environmental Assessment (EA) duly signed by the Bureau Environmental Officer (BEO). (Such documents are hereinafter described as "approved Regulation 216 environmental documentation.")

3. To this end, the Technical Application and any environmental analysis therein will be reviewed by USAID for the purpose of conducting an IEE of the proposed program. Depending on the results of the IEE, USAID may:
    a. Approve a Request for Categorical Exclusion.
    b. Determine that a Negative Determination with Conditions applies to one or more of the proposed activities. This indicates that if these activities are implemented subject to the specified conditions, they are expected to have no significant adverse effect on the environment. Such conditions must be stipulated in the award, and the Recipient will be responsible for implementing all IEE conditions pertaining to activities to be funded under the award. Because the exact nature and location of many activities will only be fully known after subawardees are selected, which will take place after award, the initial IEE may require further environmental review and an IEE amendment to be completed post-award, before subaward activities may proceed.
    c. Determine that a Positive Determination applies to one or more of the proposed activities. This indicates that these activities have the potential for significant adverse effects on the environment. In such cases, the Recipient must be required to prepare and submit an EA addressing the environmental concerns raised by such activities. No activity identified under a Positive Determination can proceed until Scoping (as described in 22 CFR 216.3[a][4]) and an EA (as described in 22 CFR 216.6) are completed and approved by USAID. (Note: The completed Scoping Statement is normally submitted by the Mission Environmental Office [MEO] to the BEO when the project originates in a Mission. The Statement must be circulated outside the Agency by the BEO with a request for written comments within 30 days and approved by the BEO subsequently. Approval of the Scoping Statement must be provided by the BEO before the EA can be initiated.) Accordingly, the Technical and Cost Applications would need to reflect IEE or EA preparation costs and approaches.
4. As part of its annual work plans, the Recipient, in collaboration with the AOR and MEO/BEO, will review all ongoing and planned activities under the award to determine if they are within the scope of the approved Regulation 216 environmental documentation. If the Recipient plans any new activities outside the scope of the approved Regulation 216 environmental documentation, it must prepare an amendment to the documentation for USAID review and approval. No such new activities will be undertaken prior to receiving written USAID approval of environmental documentation amendments. Any activities found to be outside the scope of the approved Regulation 216 environmental documentation will be halted until an amendment to the documentation is submitted and written approval is received.
5. Unless the approved Regulation 216 documentation contains a complete Environmental Mitigation and Monitoring Plan (EMMP) or a Project Mitigation and Monitoring (M&M) Plan, the Recipient will need to prepare and submit an EMMP or M&M Plan for USAID approval. The EMMP or Project M&M Plan will describe how the Recipient will, in specific terms, implement all IEE and/or EA conditions that apply to proposed project activities within the scope of the award. The EMMP or M&M Plan must include monitoring the implementation of the conditions and their effectiveness. Unless included in the successful Technical Application or revisions/addenda thereto,

the completed EMMP or M&M Plan will be integrated into the initial work plan. The approved EMMP or M&M Plan will be integrated into subsequent annual work plans, making any necessary adjustments to activity implementation in order to minimize adverse impacts to the environment.

6. The Recipient will be required to use an Environmental Review Form (ERF) or Environmental Review (ER) checklist using impact assessment tools to screen subaward and contract proposals to ensure the funded proposals will result in no adverse environmental impact, to develop mitigation measures, as necessary, and to specify monitoring and reporting. Use of the ERF or ER checklist is required when the nature of the proposals to be funded is not well enough known to make an informed decision about their potential environmental impacts; yet, due to the type and extent of activities to be funded, any adverse impacts are expected to be easily mitigated. Implementation of these activities cannot proceed until the ERF or ER checklist is completed and approved by USAID. The Recipient is responsible for ensuring that mitigation measures specified by the ERF or ER checklist process are implemented. The Recipient will also be responsible for periodic reporting to the AOR, as specified in the award.
7. The costs of environmental compliance will be reimbursable under the award resulting from this NOFO provided that they are otherwise in accordance with the terms and conditions of the award.

(End of Section F)

SECTION G: FEDERAL AWARDING AGENCY CONTACT

All questions and application submissions regarding this RFA must reference "7200AA21RFA00011" in the subject line when directed to:

Leah Leach
USAID/M/OAA/RFS
Email: lleach@usaid.gov

(End of Section G)

SECTION H: OTHER INFORMATION

USAID reserves the right to fund any or none of the applications submitted. The Agreement Officer is the only individual who may legally commit the Government to the expenditure of public funds. Any award and subsequent incremental funding will be subject to the availability of funds and continued relevance to Agency programming.

Applications with Proprietary Data

Applicants who include data that they do not want disclosed to the public for any purpose or used by the U.S. Government except for evaluation purpose, should mark the cover page with the following:

> "This application includes data that must not be duplicated, used, or disclosed – in whole or in part – for any purpose other than to evaluate this application. If, however, an award is made as a result of – or in connection with – the submission of this data, the U.S. Government will have the right to duplicate, use, or disclose the data to the extent provided in the resulting award. This restriction does not limit the U.S. Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in sheets {insert sheet numbers}."

Additionally, the applicant must mark each sheet of data it wishes to restrict with the following:

> "Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this application."

Demonstration of Eligibility

Applicants that are not "land-grant universities," "sea-grant colleges," or "Native American land-grant colleges" under the statutory definition of Title XII "universities" must submit with their application an additional statement relating to their eligibility under the statutory definition of Title XII institutions. This statement must contain references to other parts of the Technical and/or Cost Application and to references readily available on the Internet, and must not exceed two pages in length.

(End of Section H)

ANNEX 1 - WHITE PAPER

Current and Emerging Threats to Crops Innovation Lab

This white paper is not intended to point to any specific constraint(s), but does seek to demonstrate and frame serious aspects of problems posed by pests, diseases, and weeds to food security in the regions where Feed the Future works.

Introduction

Crop production is a mainstay for hundreds of millions of smallholder farmers across the tropics and subtropics and is an essential element of food security and sustainable food systems. Pests, pathogens, and weeds threaten crop production and can negatively impact all levels of global food security from production and distribution to economic access (Savary et al. 2017). A 2019 comprehensive survey (Savary et al. 2019) of crop health experts reported the percentage of crop losses attributed to 137 unique plant pathogens and pests for five globally grown crops were: wheat (21.5%), rice (30%), maize (22.5%), potato (17.2%), and soybean (21.2%). Experts identified a combined 95 different pathogens and pests for wheat (31), rice (26), and maize (38) alone. The threats that resulted in the greatest losses to wheat included leaf rust, Fusarium head blight, stripe rust, and aphids. For rice, these threats included sheath blight, stem borers, blast, and brown spot. The primary maize threats were fall armyworm, southern rust, and Fusarium and Gibberella stalk rot. The data presented do not capture the disproportional magnitude of crop loss in the food insecure regions of sub-Saharan Africa and the Indo-Gangetic Plain where losses occur every growing season or are chronic in nature. Another 15% reported that frequent loss occurred every other season to the same pathogens or pests. While wheat and maize are important food security crops, crop protection of other crops discussed below is vital to the food security and resilience of smallholder farmers.

Smallholder farmers constitute 85% of the overall 450-500 million farmer population globally (Harvey et al., 2014; Nagayet, 2005), and substantially contribute to food and cash crop production (Jazaïry et al., 1992; Morton, 2007). For example, in 2014 smallholder farmers across the African continent harvested over 145 million tonnes of cassava, an important food security crop in many Africa's low-income and food-deficient countries (Bellotti et al., 1999; Ramcharan et al., 2017; UNFAO, 2017). Similarly, sweetpotato is an important food security crop which contributes to smallholder farmers livelihoods and can be a good source of beta-carotene which helps reduce the prevalence of Vitamin A deficiency widespread in tropic and subtropic regions (Loebenstein & Thottappilly, 2009; Woolfe, 1992).

Banana and plantain are another example of locally consumed food security crops in regions where USAID works, as well as a major source of export income in some countries. Although a variety of plant pests and diseases threaten their production, three forms of Sigatoka disease are the most serious which cause premature leaf death, with the Black Sigatoka variety decimating up to 75% of crops (Viljoen et al., 2004). In addition, pests like the banana weevil contribute to considerable crop loss and other diseases like Banana Streak Virus have been

reported in 16 African countries since it was first detected on the Ivory Coast in the 1970s (Viljoen et al., 2004). Tropical Race 4 Fusarium wilt, first described 50 years ago in South East Asia, has spread to India, the Middle East, and Mozambique in Africa. Colombia, in the South American continent, reported this devastating disease as recently as 2019. Other strains of Fusarium wilt have destroyed previous banana cultivars like 'Gros Michel' and Tropical Race 4 similarly threatens to decimate the Cavendish variety, responsible for approximately 70% of banana production today (Maymon et al., 2020). In one study of Rwanda and Burundi farmers, who rely on sweetpotato, banana, potato, and cassava for food, nutrition, and income, reported crop losses ranged from 25% to 50%. Furthermore, 80% of smallholder farmers surveyed in Burundi attributed a lack of food for household consumption to pathogens and pests, and 90% attributed these threats for high food prices (Okonya et al., 2019).

Legume crops, known for their ability to fixate nitrogen, are an important source of food security, nutrition and income generation for smallholder farmers across developing regions of the world (Muoni et al., 2019; Ojiewo et al., 2015, 2019). However, cowpea, a legume which provides essential minerals, protein and vitamins, and has the potential to yield upwards of 3,000 kg ha^{-1}, is currently classified as a neglected and underutilized crop across eastern and southern Africa with reported yields averaging 200-400 kg ha^{-1} in Uganda (Adipala et al., 2000; Ayaa et al., 2018; Nabirye et al., 2003). Dry bean, another globally grown and consumed grain legume, faces considerable yield loss due to fungal diseases like Angular Leaf Spot (80%) and Anthracnose (100%) (Binagwa et al., 2020). Despite the importance of these crops, production is often constrained by biotic threats in the form of pests and diseases, many of which cause significant to complete crop losses (Gurr et al., 2016; Harvey et al., 2014; Nagayet, 2005; Ramcharan et al., 2017).

Mango and papaya, important sources of income and nutrition are highly susceptible to biotic threats leaving the fruit unsuitable for market and/or export (Sarwar 2015, Acema et al., 2016, Sekeli et al., 2018). In both crops, however, the Integrated Pest Management Innovation Lab and its predecessor program were instrumental in generating and scaling effective biological control of insect pests (Myrick et al., 2014, Elibariki et al., 2020).

Framing the Challenge to Crop Production

Significant increases in the spread of transboundary pests and diseases and emergent or recurrent outbreaks significantly affect food and income security and livelihoods for millions of resource-poor farmers across sub-Saharan Africa, Asia and Latin America. Key factors contributing to this increase include globalization, trade, and climate change (Boddupalli et al., 2020). While up to 40% of crop yield loss is attributed to pests and diseases worldwide food insecure regions like sub-Saharan Africa suffer disproportionately with the greatest burden placed on smallholder farmers (Savary et al., 2019). The demand-supply gap continues to widen as demand for crops like dry legumes and dryland cereals are projected to rise from 65 million tons in 2025 to 93 million tons in 2040 which demonstrates the importance of controlling disease and pests to alleviate current and future demand pressures (Carberry 2019, Robinson et al., 2015).

Sustaining growth and food security depends on protecting gains and continued advances in productivity and risk reduction. While biotic threats to agriculture, food security and resilience in vulnerable regions are not new, sound control methods are lacking in many food security crops. In addition, emergent threats encountered through invasive pathways bring to the horizon new pests, diseases, and weeds. The evolution of new pathogen races, insect biotypes, or other pests pose constitutive challenges to agriculture everywhere, and developing regions are no exception. Pests and pathogens evolve with their hosts, weeds adapt to control strategies, and insects and pathogens develop resistance to chemical control. There is a need for technology that can keep abreast of evolving pathogen races, insect biotypes, and other pests. Gold standard, lab-based methods to detect plant diseases, like PCR and ELISA, are time consuming, require expense reagents and equipment, and are labor-intensive (Fang & Ramasamy, 2015). Field-site testing capabilities coupled with adequate training for smallholder farmers will decrease the amount of time between detection and diagnosis leading to a more rapid response to plant pests and pathogens.

Agricultural programs need to build in resilience to climate change. Climate change alters the dynamic interplay between plants and insect and pathogen pests. Warming temperatures increases the metabolic rate in pests resulting in an increase in food consumption to keep up with the metabolic demand (Deutsch et al., 2018; Lehmann et al., 2020). This can also lead to greater population growth and expansion into areas and regions that were historically inhospitable. Since 1960, there has been a 2.7km per year shift in plant pest populations towards the poles (Bebber et al., 2013). Rising carbon dioxide levels have increased disease severity and susceptibility in certain crops like rice and wheat while pathogen virulence has been observed in certain fungal species (Velasquez et al., 2018).

Taken together, the above inherent challenges can inform and shape strategic research as a means of generating novel technologies, strategies and approaches for strengthened long-term response and management of current and emerging biotic threats.

Tracking Current and Emerging Threats to Crops

Many well-known and serious biotic threats to food security crops continue to cause recurrent losses and lack suitable (e.g., safe, effective, affordable, environmentally sound) control approaches. Similarly, several invasive pests and pathogens have emerged causing significant negative impacts. Below are examples of fungal, viral and insect pests that have invaded regions outside of their native range, and pose threats to crop production across developing countries. The highlighted threats outlined below are meant to serve as illustrative examples concerning the severe impact of current and emerging threats to food security. Although they pose serious threats, they are in no way specific guidance for the future Innovation Lab to pursue; in some cases, major progress has already been achieved. In many of these examples, new invasions are rapidly progressing across the developing world as they are oftentimes unreported until widespread and significant damage has been observed. This presents new challenges to food systems that are faced with the existing challenge of feeding a growing population.

(i) Wheat Blast Disease: From Brazil to Zambia

Since 1985, Wheat Blast Disease (*Magnaporthe oryzae pathotype Triticum*) has spread across Brazil and is now considered established in South America (Ceresini et al., 2019). Brazilian wheat was imported to Bangladesh from 2008 to 2015 until wheat blast was reported in imported wheat in 2016 (Islam et al., 2016). This led to an increased interest in understanding the causes, implications and consequences associated with the presence of this disease in a new market outside of South America (Callaway, 2016; Ceresini et al., 2019; Islam et al., 2016). The potential spread of this disease to India and other disease free areas is becoming a cause of great concern (Cruz & Valent, 2017). Unfortunately, as of the 2017-2018 growing season, wheat blast has been reported in Zambia. This is concerning as total yield losses are possible under certain environmental conditions (Cruz & Valent, 2017; Tembo et al., 2020).

(ii) Maize Lethal Necrosis: Spread across East Africa

Maize lethal necrosis (MLN) is a complex disease that has spread across eastern Africa since first being reported in Kenya in 2011(Wangai et al., 2012). MLN has since spread to Rwanda, Democratic Republic of Congo, Uganda, Tanzania, South Sudan and Ethiopia (Adams et al., 2014; Lukanda et al., 2014; Mahuku et al., 2015a). Control of MLN remains a top priority across East Africa, as it greatly impacts maize production and grain yields, with yield losses ranging from 30 to 100% in Kenya alone (Adams et al., 2014; Mahuku et al., 2015b; Marenya et al., 2018). Given the potential of MLN to emerge in other parts of sub-Saharan Africa, it has been suggested that control efforts should draw on resistant hybrids and cultivars in coordination with improved agronomic practices and synergistic efforts by multiple stakeholders (Boddupalli et al., 2020; Mahuku et al., 2015c).

(iii) *Tuta absoluta*: A Worldwide Insect Threat

Tuta absoluta is an insect pest of solanaceous, or nightshade family, plants and is native to South America. This insect pest was first detected in Spain in 2006, and since then quickly spread across Mediterranean, European, Asian and African countries (Biondi et al., 2018; Brévault et al., 2014; Desneux et al., 2011; Mansour et al., 2018). In the absence of management strategies, this pest has the potential to decrease tomato yields by 80 to 100%. Given the widespread insecticide resistance reported, and associated economic losses, efficient control strategies are needed (Garba et al., 2020; Guedes et al., 2019; Haougui et al., 2017).

(iv) Devil's Thorn, *Emex australis*: A Weed Threatening Wheat Yields

Emex australis is a native of South Africa (Smith, 1966), initially restricted to the south-west and south-east regions, but has been spread inland by migration and farming. Known by various common names including cat's head, bull head, devil's thorn, spiny emex and goat head, *E. australis* is an emerging weed problem in north India, parts of Pakistan, China, and Taiwan. Two studies in recent years have flagged the emergence and spread of this weed across the wheat fields of Haryana and west Uttar Pradesh in India. Both studies warn that if ignored, this plant could take over wheat fields and reduce crop yield (Kumar & Kumari, 2019; Tripathi et al., 2018).

The examples above provide a small snapshot of biotic threats and the devastating impacts they posed to crop production over the past decades. While various control mechanisms exist for select plant pathogens and pests, there is no one-size-fits-all approach. Local capacity and regional conditions must be considered with equal importance given to crop pest or pathogen

dynamics such as dispersal, disease cycle, and other factors like affordability (Ceresini et al., 2019, Sadat & Choi, 2017, Viljoen et al., 2004).

Innovative Approaches to Address Current and Emerging Threats to Crops

Traditional management practices for biotic threats often lack the ability to predict arrival and subsequent establishment of invasive nonnative pests and diseases across developing regions of the world. Improved and innovative approaches (e.g., surveillance, predictive, and simulation modeling which draw on available temperature, rainfall, and moisture data) will allow for better planning as it relates to the control and prevention of emerging abiotic threats. While a wide array of innovative technologies, ranging from GMO/transgenic crops and integrated pest management techniques to biological and systems management are examples of the tools the CETC Innovation Lab might utilize in its applied research program. The research opportunities highlighted are below illustrative. Additional research avenues may be proposed.

(i) Surveillance

Two types of surveillance currently exist: specific/targeted and general/passive. Specific/targeted surveillance detects and isolates certain crop pests and pathogens and is conducted by facilities based at crop entry and trade points, customs and border patrols, etc. General/passive surveillance occurs in fields and university-based facilities, involving multiple levels of interaction from the farmer to scientists to extension personnel. Gaps in diagnosis capacity, information sharing, and communication strategies currently exist requiring system strengthening. A realistic, coordinated surveillance approach is possible as diagnostic technologies improve and become more affordable and communication access points grow with the use of social media and smartphones (Carvajal-Yepes et al., 2019).

(ii) Predictive Modeling of Agricultural Pest and Disease Threats based on Environmental Variables

As highlighted in Donatelli et al., 2017, the development of additional tools and technologies will also allow for systems analysis which include key processes and their dynamics over a relative range of environmental variables. To this end, improved simulation of agricultural pest and disease impacts require: 1) improved quality and availability input data for models, 2) improved quality and availability for model evaluation, 3) improved integration with crop models, 4) improved processes for model evaluation, and 5) development of a community of practice comprised of plant pest and disease modelers (Donatelli et al., 2017). Incorporation of improved predictive and simulation modeling tools in research programming will ultimately position stakeholders to remain ahead of potential emerging biotic threats which have the potential to adversely affect global food security, particularly in some of the most vulnerable regions around the world that suffer from poverty, malnutrition and hunger.

(iii) Other Diagnostic Tools for Management of Current and Emerging Threats to Crops

New and improved diagnostics, such as imaging, biosensors, and engineered nanomaterials, demonstrate tremendous potential for rapid threat detection with unparalleled specificity and sensitivity (Martinez et al., 2020). Technologies that can detect multiple threats accurately will assist smallholder farmers at risk for multiple threats. Innovations bring challenges surrounding

data sharing, environmental impact, long term stability, and eventual scaling and commercialization (Li et al., 2020, Fang & Ramasamy 2015).

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ANNEX 2: CROSS-CUTTING ISSUES

Gender Equality, Equity, and Participation

USAID policy requires that gender equality and women's empowerment be addressed as appropriate in all USAID-funded activities and that programming contributes to the USAID Gender Equality and Female Empowerment Policy objectives and the GFSS Cross-cutting Intermediate Result of advancing gender equality and female empowerment.[39]

Gender-responsive agricultural research involves the identification of questions that are informed by and relevant to women's and men's roles, responsibilities, participation in, and benefits from agriculture innovation and market systems; the ability to collect and analyze data to answer those questions; and the ability to engage with and communicate findings to all stakeholders. Gender analysis and integration must be implemented as a cross-cutting effort within all Innovation Lab activities. Additional guidance on integrating gender can be found in the GFSS Gender Technical Guidance.[40]

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Applications are expected to outline key research processes or questions that support gender integration in each objective and proposed Area of Inquiry. Specially, the research program should (a) consider the impacts of gender roles and norms and gendered resource allocations on rural households and communities, which struggle to manage crop pests, diseases and weeds; and (b) develop knowledge, recommendations, tools, and strategies that recognize and account for the needs and multi-dimensional roles of both women and men in smallholder farming systems and their approaches to pest and disease management.

Inclusion

Key to inclusive agricultural and economic growth is the provision or benefits or opportunities for low-income individuals, families and communities, including marginalized groups. Whether building on prior women's economic empowerment theory and evidence or engaging youth or persons with disabilities in meaningful and creative ways, the technologies and other

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[39] Global Food Security Strategy Technical Guidance Advancing Gender Equality and Female Empowerment, https://cg-281711fb-71ea-422c-b02c-ef79f539e9d2.s3.us-gov-west-1.amazonaws.com/uploads/2018/03/GFSS_TechnicalGuidance_Gender.pdf

[40] https://www.feedthefuture.gov/resource/global-food-security-strategy-technical-guidance-on-advancing-gender-equality-and-female-empowerment/

[41] https://www.feedthefuture.gov/resource/global-food-security-strategy-technical-guidance-on-advancing-gender-equality-and-female-empowerment/

innovations produced by the CETC Innovation Lab will reflect considerations for inclusive agricultural development.[42] USAID recognizes that sometimes this means direct engagement with marginalized groups, but other times inclusion impacts may be created indirectly.

USAID takes a broad view to inclusion, and specific groups of interest can and should vary and intersect depending on context, including the extreme poor; women; youth; people with disabilities;[43] ethnic and religious minorities;[44] indigenous peoples;[45] LGBTQI (lesbian, gay, bisexual, transgender, queer, and intersex) persons;[46] widows and orphans; and other marginalized groups. The ME will endeavor to include and not exclude these persons from benefiting from the associated research and activities of the CETC Innovation Lab. Higher agricultural productivity generates both increased opportunity for employment among landless rural populations, as well as lower real prices for food, from which the poor disproportionately benefit. Beyond indirect benefits, the Innovation Lab will utilize appropriate tools and analyses in contexts where direct impacts on marginalized groups are feasible or likely.

[42] Suggest Approaches for Integrating Inclusive Development Across the Program Cycle and in Mission Operations, Additional Help for ADS 201, https://usaidlearninglab.org/sites/default/files/resource/files/additional_help_for_ads_201_inclusive_development_180726_final_r.pdf

[43] https://www.usaid.gov/what-we-do/democracy-human-rights-and-governance/protecting-human-rights/disability

[44] https://www.usaid.gov/democracy/religious-freedom

[45] https://www.usaid.gov/indigenous-peoples/usaid-policy-on-indigenous-peoples

[46] When working for the inclusion of LBGTQI persons, the concept of 'Do No Harm' is critical to their safety. See USAID LBGT Vision for Action, p. 8 for more. https://www.usaid.gov/sites/default/files/documents/1874/LGBT_Vision.pdf

ANNEX 3: MONITORING, EVALUATION AND LEARNING

Within 60 days after the award is made, the Applicant must submit an Activity MEL plan[47] that includes a relevant theory of change describing impact pathways, an accompanying logic model or results framework, performance indicators and an illustrative plan for data collection and management, and a knowledge management plan, describing how learning and adaptive management will occur.

The theory of change must acknowledge what is and isn't within the spheres of control and influence of the CETC Innovation Lab, as well as critical assumptions. Impact pathways must also consider knowledge sharing and transfer of research outputs to relevant end users, including local organizations, to contribute to Innovation Lab objectives. Such end users may be researchers, government decision-makers, development professionals, and the private sector.

The preliminary Activity MEL Plan should describe the activity's monitoring approach, including monitoring processes and systems and include the following:

- Performance indicators to measure progress toward achieving the desired results and outcomes and account for gender and youth and cross-cutting issues, as relevant. The Activity must use appropriate Feed the Future indicators[48] at a minimum. These mandatory indicators, required as appropriate, are defined under the Standard Program Structure (SPS) indicator categories in the most recent version of the Feed the Future Indicators Handbook: Definition Sheets.[49] [50] When research activities include issues around aspects of sustainable intensification, the "Sustainable Intensification Assessment Framework" should be used to guide indicator selection. Information on performance indicators should include:
    - A baseline year and value for indicators.
    - Annual and Life of Project targets. Appropriate benchmarks and milestones of progress can be included.
    - Disaggregation of all people-level performance indicators by sex and age cohort.
    - Documentation of known data limitations of each performance indicator by explaining any data quality limitations and what steps will be taken to address them.
    - Description of the data quality assessment procedures that will be used to verify and validate the measured values of all the performance indicators reported to USAID.

[47] See ADS 201.3.4.10 (https://www.usaid.gov/ads/policy/200/201) for USAID requirements on Activity MEL Plans. Note that "Activity" in this sense means the entire CETC Innovation Lab.

[48] https://www.agrilinks.org/sites/default/files/revised_ftf_indicator_handbook_clean_version_20190926.pdf

[49] https://www.feedthefuture.gov/resource/feed-the-future-performance-indicators-under-the-global-food-security-strategy/

[50] Indicator definitions and required disaggregation categories can change from year to year. At times, Feed the Future may designate additional mandatory indicators or drop mandatory designations.

- Custom indicators are also encouraged to be included to better report on activity-specific outcomes. These can include quantitative data (e.g. individuals receiving training) or qualitative information (e.g. description of technology adoption and reported barriers).
- Incorporate the measurement and reporting of cross-cutting issues throughout the impact pathways.
- Description of the approach for establishing effective procedures for collecting and responding to feedback from beneficiaries, and reporting to USAID a summary of beneficiary feedback and how it was addressed.
- Designation of the individuals or contractors responsible for any or all parts of performance monitoring, including data collection, data aggregation, review, approval, and entry into the Development Information System (DIS) (see Section F.III).
- The estimated costs of performance monitoring, including collecting, analyzing, reporting and dissemination of lessons learned in the budget.
- A calendar of performance management tasks (i.e. carrying out surveys, reviewing performance reports, conducting site visits, updating and revising the Activity MEL Plan as will be necessary, etc.) that must be conducted over the expected duration of the Innovation Lab, with approximate timeline for the completion of each task, recognizing there will be modifications necessary based on the subaward portfolio.
- An Evaluation Plan that includes possible evaluation questions, ideas for evaluation design, and methodologies to be used. This plan will be utilized by the external evaluation team to design the external evaluation that may take place in year 4. Also see Section F.III.

The ME must ensure that a clear knowledge management plan is in place that links explicitly with the objectives of the award and which supports achieving and sustaining those objectives. It must include, at minimum:

1. At least one implementer's technical brief for each Area of Inquiry (no more than three pages maximum), and;
2. Provision of annual key messages and conclusions from work completed to date to all internal program participants and to RFS Monitoring, Evaluation, and Learning (MEL) staff.

A clear and compelling plan to adapt and apply generic best practices of performance monitoring for impact-oriented research in the context of the proposed technical approach is required to provide evidence of the CETC Innovation Lab's successes. The ME will adaptively manage the portfolio of subawards (contracts or grants) to ensure optimal implementation of all activities. The ME will institute procedures that provide subawardees with appropriate technical guidance and feedback, to ensure that planned research and local capacity development targets are met, to assure compliance and accountability, and to address unexpected challenges and opportunities. The ME will also ensure that subawardees are accountable for progress along their impact pathway. Furthermore, an approach to achieving development impacts must also address opportunities for the Innovation Lab to implement or support technology-scaling activities, if funding becomes available through Associate Awards or buy-ins. Performance management requires access to useful and timely quantitative and qualitative data on a broad range of factors throughout the life of a program. Without planning

how and when this data will be obtained, it will be difficult or impossible, once activities start, to put systems in place to ensure timely data collection and analysis to enable ongoing decision-making and to meet performance reporting requirements (see Section F.III). The ME must take adequate steps to plan and institutionalize a process for collecting performance data as part of everyday work. This performance information consists of the indicators that will measure progress toward intermediate and final results and includes baseline data, annual progress data, and final performance targets, and may include internal or external evaluations, assessments or other evaluative material.

Note: All of the aforementioned items will be refined after award and again after selection of the portfolio of activities.

ANNEX 4 - STANDARD PROVISIONS

(Note: the full text of these provisions may be found at: https://www.usaid.gov/ads/policy/300/303maa and https://www.usaid.gov/ads/policy/300/303mab). The actual Standard Provisions included in the award will be dependent on the organization that is selected. The award will include the latest Mandatory Provisions for either U.S. or non-U.S. Nongovernmental organizations**.** The award will also contain the following "required as applicable" Standard Provisions:

Please note that the resulting award will include all standard provisions (both mandatory and required as applicable) in full text.

REQUIRED AS APPLICABLE STANDARD PROVISIONS FOR U.S. NONGOVERNMENTAL ORGANIZATIONS

Required	Not Required	Standard Provision
TBD		RAA1. NEGOTIATED INDIRECT COST RATES - PREDETERMINED (NOVEMBER 2020)
		RAA2. NEGOTIATED INDIRECT COST RATES - PROVISIONAL (Nonprofit) (NOVEMBER 2020)
		RAA3. NEGOTIATED INDIRECT COST RATE - PROVISIONAL (Profit) (DECEMBER 2014)
		RAA4. INDIRECT COSTS – DE MINIMIS RATE (NOVEMBER 2020)
	X	RAA5. EXCHANGE VISITORS AND PARTICIPANT TRAINING (JUNE 2012)
	X	RAA6. VOLUNTARY POPULATION PLANNING ACTIVITIES – SUPPLEMENTAL REQUIREMENTS (JANUARY 2009)
	X	RAA7. PROTECTION OF THE INDIVIDUAL AS A RESEARCH SUBJECT (APRIL 1998)
	X	RAA8. CARE OF LABORATORY ANIMALS (MARCH 2004)
	X	RAA9. TITLE TO AND CARE OF PROPERTY (COOPERATING COUNTRY TITLE) (NOVEMBER 1985)
TBD		RAA10. COST SHARING (MATCHING) (FEBRUARY 2012)
TBD		RAA11. PROHIBITION OF ASSISTANCE TO DRUG TRAFFICKERS (JUNE 1999)
	X	RAA12. INVESTMENT PROMOTION (NOVEMBER 2003)
X		RAA13. REPORTING HOST GOVERNMENT TAXES (DECEMBER 2014)
X		RAA14. FOREIGN GOVERNMENT DELEGATIONS TO INTERNATIONAL CONFERENCES (JUNE 2012)
	X	RAA15. CONSCIENCE CLAUSE IMPLEMENTATION (ASSISTANCE) (FEBRUARY 2012)
	X	RAA16. CONDOMS (ASSISTANCE) (SEPTEMBER 2014)
	X	RAA17. PROHIBITION ON THE PROMOTION OR ADVOCACY OF THE LEGALIZATION OR PRACTICE OF PROSTITUTION OR SEX TRAFFICKING (ASSISTANCE) (SEPTEMBER 2014)
X		RAA18. USAID DISABILITY POLICY - ASSISTANCE (DECEMBER 2004)

	X	RAA19. STANDARDS FOR ACCESSIBILITY FOR THE DISABLED IN USAID ASSISTANCE AWARDS INVOLVING CONSTRUCTION (SEPTEMBER 2004)
	X	RAA20. STATEMENT FOR IMPLEMENTERS OF ANTI-TRAFFICKING ACTIVITIES ON LACK OF SUPPORT FOR PROSTITUTION (JUNE 2012)
	X	RAA21. ELIGIBILITY OF SUBRECIPIENTS OF ANTI-TRAFFICKING FUNDS (JUNE 2012)
	X	RAA22. PROHIBITION ON THE USE OF ANTI-TRAFFICKING FUNDS TO PROMOTE, SUPPORT, OR ADVOCATE FOR THE LEGALIZATION OR PRACTICE OF PROSTITUTION (JUNE 2012)
X		RAA23. UNIVERSAL IDENTIFIER AND SYSTEM FOR AWARD MANAGEMENT (NOVEMBER 2020)
X		RAA24. REPORTING SUBAWARDS AND EXECUTIVE COMPENSATION (NOVEMBER 2020)
X		RAA25. PATENT REPORTING PROCEDURES (NOVEMBER 2020)
	X	RAA26. ACCESS TO USAID FACILITIES AND USAID'S INFORMATION SYSTEMS (AUGUST 2013)
X		RAA27. CONTRACT PROVISION FOR DBA INSURANCE UNDER RECIPIENT PROCUREMENTS (DECEMBER 2014)
X		RAA28. AWARD TERM AND CONDITION FOR RECIPIENT INTEGRITY AND PERFORMANCE MATTERS (April 2016)
		RAA29. RESERVED
X		RAA30. PROGRAM INCOME (AUGUST 2020)
X		RAA31. NEVER CONTRACT WITH THE ENEMY (NOVEMBER 2020)

REQUIRED AS APPLICABLE STANDARD PROVISIONS FOR NON-U.S. NONGOVERNMENTAL ORGANIZATIONS

Required	Not Required	Standard Provision
TBD		RAA1. ADVANCE PAYMENT AND REFUNDS (NOVEMBER 2020)
		RAA2. REIMBURSEMENT PAYMENT AND REFUNDS (DECEMBER 2014)
TBD		RAA3. INDIRECT COSTS – NEGOTIATED INDIRECT COST RATE AGREEMENT (NICRA) (NOVEMBER 2020)
		RAA4. INDIRECT COSTS – CHARGED AS A FIXED AMOUNT (NONPROFIT) (JUNE 2012)
		RAA5. INDIRECT COSTS – DE MINIMIS RATE (NOVEMBER 2020)
X		RAA6. UNIVERSAL IDENTIFIER AND SYSTEM OF AWARD MANAGEMENT (NOVEMBER 2020)
X		RAA7. REPORTING SUBAWARDS AND EXECUTIVE COMPENSATION (NOVEMBER 2020)
X		RAA8. SUBAWARDS (DECEMBER 2014)
X		RAA9. TRAVEL AND INTERNATIONAL AIR TRANSPORTATION (DECEMBER 2014)
X		RAA10. OCEAN SHIPMENT OF GOODS (JUNE 2012)
X		RAA11. REPORTING HOST GOVERNMENT TAXES (JUNE 2012)
	X	RAA12. PATENT RIGHTS (JUNE 2012)
	X	RAA13. EXCHANGE VISITORS AND PARTICIPANT TRAINING (JUNE 2012)
	X	RAA14. INVESTMENT PROMOTION (NOVEMBER 2003)

TBD		RAA 15. COST SHARE (JUNE 2012)
X		RAA16. PROGRAM INCOME (AUGUST 2020)
X		RAA17. FOREIGN GOVERNMENT DELEGATIONS TO INTERNATIONAL CONFERENCES (JUNE 2012)
	X	RAA18. STANDARDS FOR ACCESSIBILITY FOR THE DISABLED IN USAID ASSISTANCE AWARDS INVOLVING CONSTRUCTION (SEPTEMBER 2004)
	X	RAA19. PROTECTION OF HUMAN RESEARCH SUBJECTS (JUNE 2012)
	X	RAA20. STATEMENT FOR IMPLEMENTERS OF ANTI-TRAFFICKING ACTIVITIES ON LACK OF SUPPORT FOR PROSTITUTION (JUNE 2012)
	X	RAA21. ELIGIBILITY OF SUBRECIPIENTS OF ANTI-TRAFFICKING FUNDS (JUNE 2012)
	X	RAA22. PROHIBITION ON THE USE OF ANTI-TRAFFICKING FUNDS TO PROMOTE, SUPPORT, OR ADVOCATE FOR THE LEGALIZATION OR PRACTICE OF PROSTITUTION (JUNE 2012)
	X	RAA23. VOLUNTARY POPULATION PLANNING ACTIVITIES – SUPPLEMENTAL REQUIREMENTS (JANUARY 2009)
	X	RAA24. CONSCIENCE CLAUSE IMPLEMENTATION (ASSISTANCE) (FEBRUARY 2012)
	X	RAA25. CONDOMS (ASSISTANCE) (SEPTEMBER 2014)
	X	RAA26. PROHIBITION ON THE PROMOTION OR ADVOCACY OF THE LEGALIZATION OR PRACTICE OF PROSTITUTION OR SEX TRAFFICKING(ASSISTANCE) (SEPTEMBER 2014)
	X	RAA27. LIMITATION ON SUBAWARDS TO NON-LOCAL ENTITIES (JULY 2014)
X		RAA28. CONTRACT PROVISION FOR DBA INSURANCE UNDER RECIPIENT PROCUREMENTS (DECEMBER 2014)
X		RAA29. CONTRACT AWARD TERM AND CONDITION FOR RECIPIENT INTEGRITY AND PERFORMANCE MATTERS (April 2016)
		RAA30. RESERVED
X		RAA31. NEVER CONTRACT WITH THE ENEMY (NOVEMBER 2020)

(End of Annexes)

(End of Notice of Funding Opportunity)