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Deadline for Questions: Friday, June 23, 2023, 04:00 PM Washington, D.C. Time

Closing Date: Friday, August 4, 2023, 04:00 PM Washington, D.C. Time

Subject: Notice of Funding Opportunity Number: 7200AA23RFA00015

Program Title: **Feed the Future Innovation Lab for Irrigation & Mechanization Systems**

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 Irrigation & Mechanization Systems (ILIMS). 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 for the Leader Award is \$40 million. This Leader Award includes \$19 million in core funding over the five years from the Bureau for Resilience and Food Security (RFS) and contingent upon funding, up to \$10 million for buy-ins to the Leader Award from USAID Missions, Regional Bureaus, and other Offices. Separately, up to \$11 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 Sandy Solofonirina at ssolofonirina@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,

Rachel Baltes

Agreement Officer
M/OAA/RFS

ABBREVIATIONS AND ACRONYMS USED IN THIS NOFO

ACTESA	Alliance for Commodity Trade in Eastern and Southern Africa
ADS	Automated Directives System of USAID Policies
AIS	Agricultural Innovation Systems
AO	Agreement Officer
AOR	Agreement Officer's Representative
ASARECA	Association for Strengthening Agricultural Research in Eastern and Central Africa
ASEAN	The Association of Southeast Asian Nations
BEO	Bureau Environmental Officer
BSMP	Branding Strategy and Marking Plan
CCIR	Cross-Cutting Intermediate Result
CFDA	Catalog of Federal Domestic Assistance
CLA	Collaboration, Learning and Adapting
COMESA	Common Market for Eastern and Southern Africa
DDL	Development Data Library
DEC	Development Experience Clearinghouse
DIS	Development Information Solution
EA	Environmental Assessment
EAC	External Advisory Committee
ECOWAS	Economic Community of West African States
EMMP	Environmental Management and Mitigation Plan
ER	Environmental Review
ERF	Environmental Review Form
FAA	Foreign Assistance Act
FTF	Feed the Future
FTFIL	Feed the Future Innovation Lab
GAAP	Generally Accepted Accounting Principles
GFSA	Global Food Security Act
GFSS	Global Food Security Strategy
ICARDA	International Center for Agricultural Research in the Dry Areas
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
IEE	Initial Environmental Examination
IL	Innovation Lab
ILIMS	Irrigation & Mechanization Systems Innovation Lab
IR	Intermediate Result
IRRI	International Rice Research Institute

IWMI	International Water Management Institute
LE	Light Engineering
LOE	Level of Effort
LWA	Leader with Associates
M&M	Mitigation and Monitoring
M/OAA	Bureau for Management/Office of Acquisition and Assistance
ME	Management Entity
MEL	Monitoring, Evaluation and Learning
MSI	Minority-Serving Institution
MSNS	Multi-Sectoral Nutrition Strategy
MSP	Multi-Stakeholder Platform
MTDC	Modified Total Direct Cost
NARO	National Agricultural Research Organization
NARS	National Agricultural Research System
NGO	Non-Governmental Organization
NICRA	Negotiated Indirect Cost Rate Agreement
NOFO	Notification of Funding Opportunity
OAA	Office of Acquisition and Assistance
OFAC	Office of Foreign Assets Control
OU	Operating Units
PERSUAP	Pesticide Evaluation Report and Safer Use Action Plan
PI	Principal Investigator
PLC	Product Life Cycle
RCE	Request for Categorical Exclusion
RFA	Requests for Application
RFS	Bureau for Resilience and Food Security
SAM	System for Award Management
SEP	Sub-awardee Engagement Plan
SF	Standard Form
SME	Small and Medium Enterprises
SPS	Standard Program Structure
SSI	Small Scale Irrigation
TEA	Total Estimated Amount
TPP	Target Product Profiles
UEI	Unique Entity Identifier Number
USAID	United States Agency for International Development
WRM	Water Resources Management

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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 strengthening, 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 strengthening 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.*

The U.S. 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 for the benefit of both developing countries and the United States 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, and fisheries; and 2) Improved human capacity and institutional resource strengthening for the global application of agriculture and related environmental sciences.

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

In response to the 2007/2008 global food price spikes, the U.S. Government launched the Feed the Future (FTF) initiative to sustainably reduce global poverty and hunger, and to significantly increase global agricultural production to provide sufficient nutritious food for the growing world's population. Feed the Future’s results and critical contributions to the U.S. economy, security and leadership have garnered broad bipartisan support, culminating in the enactment of the Global Food Security Act (GFSA) in 2016 and its reauthorization in 2018 and 2022. **The GFSA’s signature, top-line goal is to sustainably reduce global hunger, malnutrition and poverty.**

In 2016, and in furtherance of the GFSA, USAID submitted to Congress the Global Food Security Strategy (GFSS), a 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. In 2021, the U.S. Government released a new GFSS¹ reaffirming and detailing how the U.S. intends to direct Feed the Future resources and programming to advance three main strategic objectives: promoting inclusive, sustainable agriculture-led economic growth; strengthening resilience among people and systems; and improving nutritional outcomes, especially among women and children.

Recognizing the critical role that research plays in achieving these food-security goals, the GFSA mandates that the GFSS “harness science, technology, and innovation, including the research and extension activities supported by relevant federal departments and agencies, including state partners, and Feed the Future Innovation Labs.” In addition to collaboration among U.S. Government agencies, the GFSS emphasizes partnerships with U.S. universities, private and nonprofit sectors, international agricultural research centers, as well as national research centers, universities, extension services, civil society and private-sector partners in target countries.

Research investments supported by USAID are designed by considering “impact pathways,” which map out connections between research outputs and development actors and outcomes. This system-thinking approach requires consideration of interrelationships among a wide range of sectors and actors, including agronomy, land and soil fertility management, crop breeding and genetics, animal production, water management, the role of private sector and market access, policies, nutrition, local capacity, and inclusion of women and youth. Further, USAID supports purpose-driven research for development 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 that clear pathways exist for scaling and commercialization. The Bureau for Resilience and Food Security (RFS) is responsible for implementing the GFSA and launching effective programming that fosters collaboration with and participation of the private sector in development efforts. This market-based approach is intentional as it opens markets and other opportunities for U.S. businesses, and also accelerates beneficiary countries’ progress toward self-reliance.

To meet the challenge of producing more and nutritious food with fewer natural resources while also adapting to increasingly erratic weather patterns and market price swings, the international community will need to fully harness the benefits of agricultural science and technology. Following the update of the GFSS, the U.S. Government’s Global Food Security Research Strategy was also updated for FY 2022-2026.² After a broad consultation with the global research community and interagency partners, several priority areas emerged. Feed the Future will support research activities that collectively represent three themes: a) climate-

¹ <https://www.usaid.gov/what-we-do/agriculture-and-food-security/us-government-global-food-security-strategy>

² <https://www.feedthefuture.gov/resource/u-s-government-global-food-security-research-strategy-fy22-26/>

smart agricultural innovation, b) nutrition and food systems, and c) genetic improvement of crops and livestock. The strategy recognizes that research activities are most effective when they result from a sound prioritization process; directly engage community members and partners; bolster local participation and ownership; and are designed with market systems, risk reduction, and scale in mind.

This “research for development” is neither an abstract quest for fundamental knowledge and improvement of scientific theories, nor is it the straightforward delivery of goods and services associated with development work. Rather, research for development is a unique enterprise requiring the 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 it does not stop there. Effective research for development puts information and innovations in the hands of stakeholders, where impacts may be achieved. Indeed, the agricultural research investments supported by USAID are designed by considering “impact pathways,” which map out the connections between research outputs and development outcomes. This thoughtful design is not only critical for success, it is also mandated by Congress. But these impact pathways are not linear and are best considered using a systems approach. Agricultural transformation requires consideration of the 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, gender, and the specific needs of youth.

Centrally-funded research programs link national, regional, and global research partners to identify, develop, and adapt promising practices and technologies for local farming systems, and 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 (FTF ILs). Led by U.S. Title XII Universities and intended to be collaborative research programs between U.S. universities, host-country universities, and national agriculture research organizations (NAROs), the FTF ILs are an integral component of USAID’s implementation of the GFSS through their leadership and implementation of research and capacity strengthening. FTF ILs are further designed to meet Congress’s demand to bring benefits to both U.S. and developing country stakeholders. Through the establishment of strong relationships with NAROs overseas, 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.

A.III. Background and Introduction of the Irrigation & Mechanization Systems Innovation Lab

The world population is projected to increase from 7.9 billion people today to 9.7 billion people by 2050 with a concordant 50 percent increased demand for food and other resources

– a 100 percent increased demand in the developing world.³ And yet today, with fewer resource pressures than are expected in the future, undernutrition in all forms is either the primary or a significant contributing factor in 45 percent of annual deaths among children under five globally.⁴ While this number, and undernutrition in general, has been trending downward since reliable measurements have been taken since the early 90s, it may be on the cusp of returning upward. Undernutrition among all people globally has recently started a worrisome trend upward from its lows in 2016. This trend reversal has been primarily driven by negative outcomes in sub-Saharan Africa,⁵ which are correlated with increased conflict and a large 2016 ENSO (El Niño/La Niña) event, Covid 19 impacting the continent, and the recent spike in high food, fertilizer and fuel costs caused by Russia’s invasion of Ukraine. Increasing yields and quality of local staple crops has tremendous potential to combat these trends, and irrigation and mechanization are proven strategies to increase yields and provide greater amounts of nutritious foods, especially high value, nutrient-dense food products. Studies and anecdotal evidence have documented constraints to women’s participation in small-scale irrigation programs, and that women tend to benefit less than men from such programs.⁶ Gender norms that limit women’s ability to control farm assets and access to credit are often cited as major contributing factors to this outcome.

Significant challenges exist in transforming global agriculture systems to better meet the demands for food security, nutrition, and inclusive agriculture-led economic growth. Major challenges include climate change, low productivity or unstable production systems, inefficient market systems and value chains, weak management capacity, inadequate transportation systems, inequitable and insecure access to land and financial services, inadequate environmental and landscape management, poor water resource management, feeds and input supply, pest management, and food safety issues. While the ILIMS will not address these challenges directly, through its systems approach it is expected to serve as a platform where these challenges can be addressed, and also as the impetus for the emergence of production systems that are economically, environmentally, and socially sustainable, that increase crop productivity, incomes and nutrition for vulnerable and poor populations while reducing risks from economic, environmental, and climatic shocks.⁷

Irrigation and mechanization have long been recognized as key drivers of agricultural productivity improvement and thus can catalyze the transition from subsistence farming to

³ FAO. 2022. *The State of the World’s Land and Water Resources for Food and Agriculture – Systems at breaking point. Main report*. Rome. <https://doi.org/10.4060/cb9910en>. <https://www.fao.org/land-water/solaw2021/en/>.

⁴ In 2019 there were 5.2 million deaths of children under the age of five, 2.4 million of which were attributed to undernutrition. <https://www.who.int/news-room/fact-sheets/detail/children-reducing-mortality>. (Accessed 19 April 2023)

⁵ <https://ourworldindata.org/grapher/share-undernourished-2000-2017?time=2000..2017>

⁶ Gitta Shrestha. 2022. Gender barriers to irrigation technologies in Nepal. International Water Management Institute (IWMI). <https://agrilinks.org/post/gender-barriers-irrigation-technologies-nepal>

⁷ Pingali, P. L. 2012. Green Revolution: Impacts, limits, and the path ahead. *Proceedings National Academy of Sciences*. 109: 12302–12308.

market-oriented agricultural production systems. By ensuring yearlong access to water, irrigation offers an adaptation mechanism to increased climate variability and drought. Farmers with access to irrigation are more inclined to invest in other agricultural inputs (e.g., fertilizers, improved seeds) to boost production and also adopt technologies and practices aligned with sustainable agricultural intensification. With increased reliability of water, farmers are able to take calculated risks to diversify their product range, thus allowing households to diversify and supplement their diet with more nutritious foods. Irrigation can also increase fertilizer use efficiency and the ability of farmers to deliver diverse and nutritious foods to local markets, both critical during this time of high food, fertilizer and fuel costs caused by Russia's invasion of Ukraine. Expectation of nutrition co-benefits is consistent with a study conducted by IFPRI in Mali that documented significant improvement in household nutrition and consumption of nutrient-rich food groups with adoption of irrigation.⁸ As noted in the 2022-2026 GFSS, Objective 4, (i) expanded access to water for irrigation is essential for "increasing productivity and driving economic growth, climate resilience, and food security", and (ii) "access to efficient and affordable irrigation systems, especially small-scale schemes" provides a pathway to sustainable agricultural productivity while ensuring water security for producers.

In alignment with this broader strategic framework, these prior engagements have particularly guided RFS/CA's approach to the development of this new FTF Innovation Lab (IL):

- 1) Findings from USAID's previous investments in irrigation and mechanization and their program evaluations (which included recommendations for future research priorities).^{9,10,11}
- 2) The Agrilinks month-long series of seminars (May 2022) and ensuing consultations with relevant stakeholders to define gaps and opportunities for future investment in irrigation and mechanization to support food security objectives in light of the challenge posed by climate change to smallholder farmers.¹²
- 3) Examination of the drivers of adoption of small-scale irrigation in sub-Saharan Africa conducted by IFPRI: the study examined the role of gender and the socio-economic determinants of adoption of different types of irrigation technologies and irrigation practices. The study found that participation in farmer groups increases the propensity to adopt irrigation. Finally, a strong linkage between irrigation and household nutrition improvement was reported. A Research Brief produced by the Small-Scale Irrigation

⁸ Nkonya EM., Kato E., Ru Y. 2020. Drivers of adoption of small-scale irrigation in Mali and its impacts on nutrition across sex of irrigators. Discussion Paper, International Food Policy Research Institute (IFPRI). <https://doi.org/10.2499/p15738coll2.133713>

⁹ ILSSI (2023). Report on small-scale irrigation's contributions to increased income, economic growth, and market opportunities. https://ilssi.tamu.edu/files/2023/03/ILSSI-Brief-Growth_INTERACTIVE_022123.pdf

¹⁰ ILSSI (2023). Report on strengthening capacity for sustainable irrigation management and markets. https://ilssi.tamu.edu/files/2023/03/ILSSI-Brief-Capacity_INTERACTIVE_022123.pdf

¹¹ ILSSI (2023). Report on climate change, water resources, and irrigation sustainability. https://ilssi.tamu.edu/files/2023/03/ILSSI-Brief-Water_INTERACTIVE_022123.pdf

¹² <https://agrilinks.org/theme-month-collections/irrigation-and-mechanization-month-2022>

(SSI) Innovation Lab further highlights women’s empowerment as a key pathway to the irrigation-nutrition/food security nexus.¹³

During the internal assessment conducted by RFS technical staff, USAID decided to combine irrigation and mechanization research investments into a slightly larger activity that focuses more on the *systems* that support innovation, adoption, and continued use of agriculture related mechanization and irrigation technologies, including research on pathways to overcome the so-called “valley of death” between innovation and sustainable scaling. Through this consolidation of important follow-on research from our current investments in these portfolios (namely, the FTF IL for Small Scale Irrigation and the Appropriate Scale Mechanization Consortium through the FTF IL for Sustainable Intensification), USAID will achieve greater synergies between the systems supporting mechanization and irrigation, managerial efficiency, global visibility, and convening power among international research stakeholders, while also streamlining interactions with partner Missions through a single point of contact for both mechanization and irrigation innovation efforts.

The overall goal of this new IL is to improve mechanization *systems* and irrigation *systems* which are then adopted by producers and other stakeholders. This goal is supported by four key outcomes, each one an intermediate result and a pillar of scientific inquiry:

1. Assessment of suitability of various systems and improved targeting of technologies to producers.
2. Increased inclusive governance and intentional, inclusive design.
3. Strengthened inclusive market systems.
4. Strengthened stakeholder capacity and ability to apply evidence.

Although this is a new activity, it will nonetheless build on lessons learned from past USAID’s research investments, particularly those of the Feed the Future Innovation Labs and their impacts on sustainable development outcomes. This systems-oriented and multi-sectoral partnership approach is applied to ensure that local partners retain the necessary relationships, resources, and skills to enable local leadership once the activity has come to an end.

The objective of this program description is to procure a Management Entity (ME) to manage the Irrigation & Mechanization Systems Innovation Lab (ILIMS). The overarching goal of the Innovation Lab (IL), in line with the GFSS, is to reduce global hunger, malnutrition and poverty through science, technology and innovation.

A.IV. Program Description

A.IV.a. Program Overview

¹³ Lefore N., Stellbauer M. Gender: Feed the Future Innovation Lab for small-scale irrigation (ILSSI). Gender Brief, 4 p.

The Feed the Future Innovation Lab for Irrigation & Mechanization Systems (ILIMS) will be a five-year Leader with Associates (LWA) Cooperative Agreement, awarded to a U.S. university to develop a global portfolio of research-for-development activities in the broad domains of small-scale irrigation and mechanization systems. The award's Total Estimated Amount (TEA) allows a maximum award ceiling of up to \$40,000,000.00, structured as follows:

- a) A \$19,000,000.00 Leader Award will support the successful U.S. university Applicant to act as the ME of the ILIMS. In this capacity, the Awardee's primary responsibility will be to develop, select, and manage a portfolio of research and capacity-development activities. The Leader Award is intended to support ME costs associated with managing and implementing the portfolio of activities, with a majority of Leader Award funds to be allocated to research and capacity development activities. It is expected that the majority of these activities will be competitively procured but may include commissioned (i.e., non-competed or directed) activities.
- b) \$21,000,000.00 of potential additional funding may be awarded noncompetitively by USAID Missions, Bureaus, or Offices to support additional activities that fall within the technical scope of the award. This may include:
 - A maximum \$11,000,000.00 in potential Associate Awards
 - A maximum \$10,000,000.00 in potential buy-ins (maximum \$2,000,000.00 for each individual buy-in with limited exceptions for up to \$3,000,000.00)

The FTF Innovation Lab for Irrigation & Mechanization Systems (ILIMS) will conduct systems research on the scaling and impact pathways of small-scale irrigation (SSI), landscape-level water resources management (WRM), and mechanization to enhance the utility of these tools, designed for the specific needs of smallholder women and men farmers, for inclusive agriculture-led growth, food security, nutrition, and resilience. The new IL will conduct assessments that will improve targeting by identification and adaptation of small-scale irrigation, of agricultural water management systems, as well as reviewing mechanization technology to minimize trade offs and enhance agricultural best practices.

The ILIMS will conduct research on the suitability of small-scale irrigation, agricultural water management, and mechanization technologies across various biophysical and socioeconomic conditions taking into consideration productivity, economic, environment, human, and social indicators. This will be paired with research on technologies and approaches that support the localization and targeting of these technologies at the farm, household, and landscape levels to overcome field and landscape level variability. Well validated and structured approaches such as the Sustainable Intensification Assessment Framework (sitoolkit.com) will be used.

The ILIMS will partner with national agricultural research system (NARS) actors, CGIAR Centers, and community-based organizations to promote the adoption and scaling of context-sensitive irrigation and mechanization technologies. The ILIMS will work with the private sector to enable convenient, equitable and affordable access to these technologies by smallholder farmers and processors. Greater access to irrigation and/or mechanization can amplify the

yield benefits of other agricultural inputs (e.g., fertilizers, improved seeds) and, with appropriate partnership and scaling mechanisms, can lead to greater profits, poverty reduction, food security, and enhanced resilience for small-scale farmers. Research and associated capacity strengthening must ensure that a continuing pipeline of improved technologies, practices, and knowledge is available to contribute to the development objectives of the Global Food Security Strategy (GFSS). The ILIMS will design, lead, and implement a program of research and capacity strengthening aimed at addressing opportunities and challenges associated with farmers' and processors' uptake of irrigation and mechanization technologies, notably through research on the *systems* and *enabling environment* that support the widespread adoption of these technologies, and will additionally serve as a resource to USAID Missions and their partners on the potential contribution of these technologies to inclusive economic growth, climate adaptation, nutrition, and gender-sensitive and youth-inclusive development.

The ILIMS will integrate RFS's Product Life Cycle (PLC) Framework (Figure 1) into the management of research activities and innovation development. Applying the PLC Framework to all research activities will provide the structure necessary to ensure that the needs of all stakeholders are appropriately considered, the pathways to scale are known, and the best scaling partners are identified and integrated into the research activities early in the process. Utilizing the PLC Framework also provides a common point of reference for all Innovation Labs when communicating their work and results to USAID and other development partners. For most activities, the ILIMS will create as a starting point Target Product Profiles (TPP) — specific capabilities and characteristics demanded by farmers, companies, and other value-chain actors within target geographies — generated through multi-stakeholder consultations under complementary activities (for example, other current or past Innovation Labs' programs, public private partnerships, or the activities of CGIAR research centers) or new consultations. New information systems, management systems, finance products, policy recommendations, etc. can also utilize a "target product profile" and the PLC Framework to use as a guide to create the respective finished outputs. The IL will utilize these TPPs to guide activity selection toward the most promising lines of inquiry and technology innovation that will produce improved technologies and systems most closely matching the developed TPPs. Private companies, local water management organizations, NARS, and CGIAR centers will be responsible for creating improved technologies, technology packages, management systems, and financial products that most closely match the TPPs. The IL will also carry out local capacity strengthening activities to enable the NARS, private companies, and community organizations to continue the process of innovating and meeting the technological, informational and managerial needs of farmers, processors, and their communities with respect to irrigation, integrated water resources management, and mechanization.

Figure 1. RFS Product Life Cycle Decision-Making Framework for Irrigation & Mechanization Systems Innovation Lab

Stage 1 Target Product Profile (TPP)	Stage 2 Discovery	Stage 3 Proof of Concept	Stage 4 Validation	Stage 5 Selection	Stage 6 Release	Stage 7 (C In
TPP developed based on market research and segmentation, through new consultations and desk reviews.	Identification and selection of product and systems components based on TPP.	Development of pre- products or prototypes. Testing systems via simulations and/or workshops.	Validate assumptions and TPPs through limited adoption case studies.	Select final iterations to move forward.	Roll out technologies and systems while closely monitoring early results.	Re co in wi ad id

To overcome the many challenges smallholder producers face regarding equitable access to technology, information, and water resources, the IL is expected to consider the value chains as a whole, directing research activities to utilize outputs of concurrent or former research. Given the research-for-development (R4D) orientation of this program, there must be integration and a systems approach across projects to improve the relevance of program outputs. The ILIMS must continue to capitalize on previous investments in research and discovery through outreach and consultations with irrigation and mechanization systems stakeholders' and accelerate development outcomes with regional and global collaborators. The management entity (ME) must consider ways to ensure that collaboration occurs across the research activities of the ILIMS.

The ILIMS must develop a research agenda that enhances livelihood possibilities — with due attention to low income communities, women, and youth — and increases food and nutrition security. The IL will contribute to USAID's goals of improving food and nutrition security through inclusive and sustainable agriculture-led economic growth, strengthened resilience among people and systems, and a well-nourished population, especially among youth, women, and young children.

However, for most smallholders, access to irrigation and mechanization technologies remains a challenge. The barriers vary by system, but in general there is need for better targeting and tailoring of proven and appropriate small-scale irrigation, agricultural water management, and mechanization technologies, and identification of the key barriers and tradeoffs inhibiting smallholder farmers' access and adoption, with particular attention to the needs of women. Scaling relies on integrated innovations, such as finance, gender-sensitive considerations, policy, and local capacity strengthening but also on the balance of creating innovations matching appropriate TPPs (the demand signal) and correctly targeting appropriate markets for those supported technologies.

There are four key outcomes, each one an intermediate result (IR) and a pillar of scientific inquiry:

- 1) Assessment of suitability of various systems and improved targeting of technologies to producers.**
- 2) Increased inclusive governance and intentional, inclusive design.**
- 3) Strengthened inclusive market systems.**
- 4) Strengthened local stakeholder capacity and ability to apply evidence.**

In order to fulfill these four objectives, the Management Entity (ME) must provide global technical leadership, directed by a prominent member of the global agricultural research community, that informs USAID's agricultural research agenda while also ensuring effective, efficient management and implementation of all activities within the ILIMS portfolio. The successful Applicant must therefore provide a compelling narrative throughout the application that effectively and efficiently ensures that all activities meet USAID requirements for international research collaborations as well as a compelling approach to guide procurement of a portfolio of research and capacity-development activities that will achieve these four strategic objectives.

Each IL that is awarded assistance funding through an LWA has the following essential management functions:

- Development and Selection of the Research Portfolio
- Integration of the Cross-Cutting Issues
- Program Planning and Management of the Research Portfolio
- Monitoring, Evaluation, and Learning
- Knowledge-Sharing, Outreach, and Data Management
- USAID Mission Engagement and Outreach
- Management of Associate Awards and Buy-ins

In order to be fully successful, the ME of the ILIMS must implement all activities through the lens of three overarching principles:

- 1) Ensure the scientific quality of the research portfolio**
- 2) Ensure the relevance of the research and program activities for U.S. and local stakeholders, and**
- 3) Ensure accountability for program implementation, including financial oversight**

The Applicant must provide a compelling, technically outstanding strategic vision to guide its procurement and management of a portfolio of systems and technological innovation research and capacity strengthening activities. Effective integration of irrigation and mechanization systems research within the agriculture innovation and market systems creates opportunities to advance all three strategic objectives described under the GFSS: inclusive and sustainable agriculture-led economic growth, strengthened resilience among people and systems, and a well-nourished population.

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

The purpose of the FTF Innovation Lab for Irrigation & Mechanization Systems (ILIMS) is to conduct *systems* research on the scaling and impact pathways of small-scale irrigation (SSI), landscape-level water resources management (WRM), and mechanization to enhance the utility of these tools, designed for the specific needs of smallholder women and men farmers, for inclusive agriculture-led growth, food security, nutrition, and resilience. The new IL will conduct assessments that will improve targeting by identification and adaptation of small-scale irrigation, of agricultural water management systems, as well as reviewing mechanization technology to minimize trade offs and enhance agricultural best practices.

The IL's research outputs are intended to directly contribute to achieving the Global Food Security Strategy (GFSS) Objective 1, Inclusive and sustainable agriculture-led economic growth, and Objective 2, Strengthened resilience among people and systems. They will contribute to the following Intermediate Results (IRs), Cross-Cutting Intermediate Results (CCIRs) and Complementary Results:

- IR 1 Strengthened inclusive agriculture systems that are productive and profitable
- IR 2 Strengthened and expanded access to markets and trade
- IR 4 Increased sustainable productivity, particularly through climate-smart approaches
- IR 5 Improved proactive risk reduction, mitigation, and management
- CC IR 2 Increased gender equality and female empowerment
- CC IR 3 Increased youth empowerment and livelihoods
- CC IR 4 Enhanced climate change adaptation and mitigation
- CC IR 5 Improved natural resource management
- CC IR 6 Improved water resources management
- CC IR 7 More effective governance, policy, and institutions
- CC IR 10 Enhanced integration of digital technologies
- Complementary Result: Healthy ecosystems and biodiversity
- Complementary Result: Well-educated populations

They will also indirectly contribute to achieving Objective 2, A well-nourished population especially among women and children, and the following IRs, CC IRs, and Complementary Results:

- IR 3 Increased employment and entrepreneurship
- IR 6 Improved adaptation to and recovery from shocks and stresses
- IR 7 Increased consumption of safe and nutritious foods
- IR 9 More hygienic household and community environments
- CC IR 8 Improved human, organizational, and system performance
- CC IR 9 Enhanced integration of conflict sensitivity, peacebuilding, and social cohesion
- Complementary Result: Economic growth in complementary sectors
- Complementary Result: Stable, democratic societies that respect human rights and the rule of law
- Complementary Result: A reduced impact of disease

USAID has identified the following Theory of Change: if options of small-scale irrigation, WRM, and mechanization technologies can be targeted to match specific biophysical, climatic, and socio-economic conditions, including addressing the needs of women, youth and marginalized groups, and if the primary systems tradeoffs are identified and paired with technologies or approaches that overcome these barriers, then stakeholders will be able to better promote and adopt small-scale irrigation, WRM, and mechanization technologies that provide a pathway out of poverty and food insecurity.

Applicants must present a Theory of Change, supported by a results framework and impact pathways, that meet the objectives of the Innovation Lab. Applicants are welcome to use only the Theory of Change stated above or craft a new Theory of Change as long as it is well supported and consistent with the stated objectives in this NOFO.

A.IV.c. Approach to Ensure Scientific Quality

A.IV.c.1. Background and Context

Despite its promises, irrigated and mechanized agriculture faces important challenges. Factors that have hampered the uptake of irrigation and mechanization technologies by smallholders are widely debated and inventoried.^{14,15,16,17}

Examples of challenges to adoption and scaling of irrigation and mechanization technologies:

- Poor adaptation of technologies to local conditions and farm's context.
 - Solar-powered irrigation systems, for example, are an attractive alternative to traditional fuel-powered systems but successful deployment requires assessment of suitability to the physical setting (ex. depth of groundwater to determine required lifting capacity), and consideration of the farm's context (soil fertility, field conditions, farmers' income and knowledge, and local service technicians). The online mapping platform of IWMI (<http://sip.africa.iwmi.org/>) is a tool that can be used for this type of suitability assessment.
- Intensity of labor to operate and handle equipment.
- Lack of access to affordable credit by low-income farmers, land tenure insecurity, and weak community water governance.

¹⁴ Innovation Lab for Small Scale Irrigation (ILSSI), Publications and additional resources. (<https://ilssi.tamu.edu/countries/tanzania/>).

¹⁵ Bedru Balana, Dawit Mekonnen, Beliyu Haile, Fitsum Hagos, Seid Yimam, Claudia Ringler. 2020. Are smallholder farmers credit constrained? Evidence on demand and supply constraints of credit in Ethiopia and Tanzania. Discussion paper, International Food Policy Research Institute (IFPRI).

¹⁶ Prossie Nakawuka, Simon Langan, Petra Schmitter, Jennie Barron. 2018. A review of trends, constraints and opportunities of smallholder irrigation in East Africa. *Global Food Security* 17, 196-212.

¹⁷ Simone Passarelli, Dawit Mekonnen, Elizabeth Bryan, Claudia Ringler. 2018. Valuating the pathways from small-scale irrigation to dietary diversity: evidence from Ethiopia and Tanzania. *Food Security* 10, 981–997.

- Disconnected agriculture innovation and market systems that do not have the capacity or capability to take into account changing producer, processor, and consumer demands.
- Inadequate education and training to provide farmers relying on rain-fed crops with knowledge needed for the management of irrigation water.
- Sub-optimum application of irrigation water can lead to unrealized crop yield benefits and low fertilizer use efficiency. Likewise, excessive application of irrigation water results in nutrient and soil loss, water pollution and increased emission of greenhouse gases.¹⁸
- Inadequate understanding of gender and youth preferences and opportunities.
 - More opportunities are needed within the cereal crops production innovation and market systems for mechanization and irrigation enabling systems to generate livelihood opportunities, including employment for women and youth and the creation of small and mid-size enterprises (SME).

Within these broad parameters, Applicants must identify which challenges are the most pressing to overcome, which opportunities hold the best promise to advance the strategic objectives of the GFSS and the four objectives of the ILIMS, and how those challenges and opportunities must be addressed in the context of the cross-cutting themes. Such research themes must demonstrate that the Applicant understands the role that the cross-cutting issues have within the broader research themes and that research themes are encouraged to also directly address research questions targeted at cross-cutting issues. As the FTF ILs are mandated to benefit both partner countries and the U.S., the ILIMS must consider research priorities among U.S. stakeholders and propose how U.S. stakeholder perspectives are reflected in the IL.

A.IV.c.2. Areas of Inquiry

Applicants must craft Areas of Inquiry that lay out a coherent framework of themes and research approaches that:

- Generate research outputs that accelerate adoption of irrigation and mechanization technologies by address “keystone” opportunities and challenges within systems to increase agricultural productivity, resilience, inclusive agriculture-led economic growth,¹⁹ and human nutrition;²⁰
- Are appropriate within the context of the GFSS target geographies and irrigation and mechanization systems;

¹⁸ Please also see the GFSS Activity Design Guidance for Improved Water Resources Management for Agricultural Systems. <https://agrilinks.org/activities/guidance-and-tools-global-food-security-programs-fy-2022-2026>.

¹⁹ Please also see the GFSS Activity Design Guidance for Increased Sustainable Agricultural Productivity. <https://agrilinks.org/activities/guidance-and-tools-global-food-security-programs-fy-2022-2026>.

²⁰ Please also see the GFSS Activity Design Guidance for Diets and Food Safety. <https://agrilinks.org/activities/guidance-and-tools-global-food-security-programs-fy-2022-2026>

- Build on past research and reflect current knowledge and approaches within the relevant research disciplines, including concurrent efforts of CGIAR, ILs, Private Sector and other development partners;
- Strategically emphasize topics and approaches in which USAID-funded university 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; and
- Integrate and address the cross-cutting issues as appropriate throughout all research areas of inquiry in order to ensure that issues of gender and youth, nutrition, resilience, local capacity, and private sector engagement are incorporated into the design and conception of the proposed research agenda.

Aligning with these themes, USAID proposes the following Areas of Inquiry and example activities that have been identified as critical to advancing the Agency's goals of increased agricultural productivity, inclusive income growth opportunities, improved nutrition for smallholder households, and increased resilience and adaptation to climate change:

- **Area of Inquiry 1: Assessment of suitability of various systems and improved targeting of technologies to producers**
 - identify and adapt SSI, WRM, and mechanization technology options with consideration of local context and socio-economic profiles of farmers,
 - conduct user profile analysis (farmers, processors) before deciding on potential technologies and systems to ensure suitability of irrigation, WRM, or mechanization innovations,
 - identify common characteristics of producers who are ready to adopt technologies,
 - improve target product profiles of new technologies, information and management systems, and finance products,
 - assess the contribution of structural factors (ex. land tenure, governance) to the success and failure of past small-scale irrigation and mechanization efforts,
 - develop technology bundles supporting climate change adaptation and mitigation,
 - identify, through field research, data synthesis and/or modeling, alternative crop production options that maximize water productivity given varying scenarios in climate variability and cost of agricultural inputs.
- **Area of Inquiry 2: Increased inclusive governance and intentional, inclusive design**
 - intentional design of innovations and products that empower women and increase inclusion of marginalized groups,
 - consider governance of water resources at multiple scales, including groundwater, and as part of an integrated system of multiple users,
 - design and improve data analysis and management tools that optimize ground and surface water utilization given various trade-offs,

- identify constraints and assess impacts of policies on productive water use through analyses and dialogue with multi-sectoral stakeholders,
 - assess the impact of participatory governance on water systems management and identify the profiles of farming communities where this governance model would succeed,
 - promote inclusive and gender-sensitive approaches in the design and execution of irrigation and mechanization projects to ensure meaningful women participation and involvement of youth as appropriate.
- **Area of Inquiry 3: Strengthened inclusive market systems**
 - encourage the creation of innovative financial products that better correspond to the needs and financial situations of smallholder farmers and traditionally marginalized populations,
 - conduct policy analysis, and propose recommendations to improve irrigation and mechanization products supply chains,
 - identify mechanisms to strengthen market/finance systems to facilitate participation of local actors in the irrigated and mechanized agriculture industry,
 - propose strategies to improve the business environment for suppliers of irrigation and mechanization equipment,
 - identify blockages to accelerated adoption of solar-powered irrigation systems,
 - examine how private service providers and rental services can help remove gender-based barriers to women access to irrigation and mechanized equipment,
 - examine mechanisms to support rental services and indirectly facilitate access to irrigation and mechanization by poor farmers who cannot bear the high purchase cost (the Hello Tractor service in Africa provides a model in that regard),
 - encourage greater participation of local actors in the manufacturing, sale, and maintenance of irrigated and mechanized agriculture equipment, thus ensuring reliable and sustained delivery of services,
 - in contexts where subsidies are provided to promote irrigation and mechanization, determine appropriate modalities under which this assistance can be provided to ensure that the benefits go to the smallholders,
 - design and promote business models that foster the involvement of small and mid-size enterprises (SME), especially youth and women-owned SME, in ventures related to irrigation and agricultural mechanization.
 - **Area of Inquiry 4: Strengthening stakeholder capacity and ability to apply evidence**
 - promote graduate student training and mentoring,
 - support training programs to ensure a pipeline of trained local technicians capable of servicing irrigation and mechanization equipment,
 - equip service providers with the tools and skills to apply evidence and data, increasing capacity on the use of analytical tools,

- encourage the deployment of multi-stakeholder platforms to enable participatory knowledge sharing and local capacity strengthening,
- reinforce local extension services, both public and private, to introduce farmers to irrigation practices, which would translate to improved agricultural water use efficiency and protection of water resources from potential adverse impacts of agricultural intensification,
- determine how to incentivize the emergence and growth of local light engineering (LE) enterprises involved in the fabrication and maintenance of irrigation and mechanization equipment.²¹

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 IL'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 four objectives of the ILIMS. Applicants may also propose well-justified additional or alternative areas of inquiry aligned with the four objectives of the ILIMS, or propose an alternative organization or framing of these concepts and approaches as appropriate to advance a creative, high-impact Program Description. **However, proposed alternative frameworks or concepts should focus less on the engineering aspects of proposed innovations, but rather on how to create an enabling environment that addresses social, cultural, institutional, financial and gender-related barriers to wide-scale adoption of small-scale irrigation and mechanization systems.** Specifically, proposed activities should seek to provide evidence in support of institutional and governance models conducive to inclusive and sustainable management of these systems.

A.IV.c.3. Portfolio selection

A key premise of all the FTF ILs is collaborative research through partnerships. To accomplish the goals of the ILIMS, the ME, in direct partnership with USAID, must craft and organize a coherent program of high-quality research activities, focusing on areas where the FTF IL approach has a comparative advantage. 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 Requests for Applications (RFAs) to partner with U.S. and international research and educational institutions, and the private sector under formal sub-agreements that define, authorize, and fund the work to be done under the IL. 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.

²¹ Nur-A-Mahajabin Khan. 2022. RK Metal: From a Small Welding Shop to Light Engineering Ecosystem Shaper. AgriLinks Posts and Events. <https://agrilinks.org/post/rk-metal-small-welding-shop-light-engineering-ecosystem-shaper>

Prior to selection of the portfolio of activities, the ME must develop a strategy to monitor the process of innovation adoption (including “innovations such as management systems or structures, financial products, training courses, etc.) and 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, particularly on climate change adaptation and mitigation?
- How does the research activity meet the agronomic, economic, and environmental needs of FTF beneficiaries, both men and women, as they define those needs? Is the research and/or the likely output accessible, as appropriate, to both men and women? Is the research, as appropriate, accessible to youth?
- How does the research activity address issues related to environmental and water resources sustainability?
- How does the research activity address food security, diet, and nutrition issues?
- How does the research activity increase whole-farm profitability and productivity and safeguard the resources upon which future generations will depend?
- How does the research activity strengthen local capacity in the local Agriculture Innovation Systems and the systems supporting local adoption and scaling of technologies and resource management strategies?

(i) Initial Activities

To reduce delays between project award and initial program outputs, four to seven activities (referred to as Initial Activities) are to be proposed with the submission of the application. Initial Activities must serve at least one of the following purposes: generating information products and common research goods to be utilized by other activities; addressing an immediate, time-sensitive need within the areas of inquiry; generating an identifiable “Quick Win” within the areas of inquiry; and/or initiating capacity strengthening activities that are determined in collaboration with local actors to be foundational for advancing impact within the areas of inquiry and for which a competitive process would not generate any meaningful advantage.

Requirements: Each Initial Activity must address issues, whether they are programmatic, technical, or systemic, that align with the scopes of the proposed areas of inquiry. Initial Activities must be ready to commence within 60 to 90 days of award. (Due to internal USAID approval processes, including but not limited to concurrence from the relevant USAID Mission, start dates in actuality may be delayed beyond 90 days.) Initial Activities must be able to fulfill their work plans within 18 months from their start dates; completion within 12 months is preferable, though. There is no budget limit for any individual activity during the Application phase. During the co-creation process, USAID and the Apparently Successful Applicant will together select which Initial Activities to further pursue (if any) and any recommended changes. After award, the ME will submit selected revised Initial Activity descriptions and budgets which USAID will review and either approve or not approve. No more than \$1,000,000

will be allocated to the final combined portfolio of Initial Activities. USAID values diversity in every aspect of program design, and these Initial Activities are no exception — the proposed portfolio of Initial Activities must include a diverse and representative mix of U.S. and local universities and partner organizations, countries, and global outputs and must address the cross-cutting issues.

Within the main body of the technical application, each of the Initial Activities must be summarized, and Applicants must include an estimated length of time and cost. Additionally, in an annex to the technical application that will not count against the page limit, each of the Initial Activities must be discussed in more detail, including but not limited to:

- a. The PI(s) and organizations(s) to conduct the work including contact information and UEI number;
- b. Activity objective(s);
- c. Rationale for including this activity as an Initial Activity and the relationship to the overall objectives of the ILIMS;
- d. How the activity outputs will be expected to generate information products and common goods to be utilized by other activities, address an immediate, time-sensitive need within the Areas of Inquiry, generate an identifiable “Quick Win” within the Areas of Inquiry, and/or initiating capacity strengthening activities that are determined in collaboration with local actors to be foundational for advancing impact within the areas of inquiry and for which a competitive process would not generate any meaningful advantage;
- e. How the activity will address the cross-cutting issues (including local capacity development and private sector engagement);
- f. Work plan; and
- g. Detailed budget.

The annex must include all of the information that would be expected of entries to the competitive award process; however, it is not the intent of USAID to overly burden the Applicants during the proposal phase, and as such, the details of each proposed Initial Activity do not need to be fully complete at this stage, but can instead be considered a concept note limited to one page, single-spaced (maximum two pages including budget).

How these Initial Activities will be used during the Application evaluation process: The Initial Activities will be evaluated as an integral part of the overall Application according to the quality of the research concepts, applicability to overarching research goals, and the diversity represented by members of the teams submitting concept notes (men, women, foreign PIs, U.S.-based PIs, inclusion of PIs from U.S. Minority Serving Institutions [MSIs], Areas of Inquiry, focal countries, private sector, and cross-cutting issues).

Final selection of the Initial Activity portfolio: Selection and finalization of the Initial Activities will occur during the co-creation phase and through the first 60 to 90 days of the start of the terms of performance for the ILIMS. If the Applicant intends to have an additional review process (e.g., through the External Advisory Committee as part of the ILIMS’s process to

approve the Initial Activities), then this process must be described in the Technical Application. USAID will determine and approve the final selection and scope of these Initial Activities and reserves the right to approve all, some, or none of the proposed Initial Activities or to approve with modifications. The combined cost of the portfolio of Initial Activities will not exceed \$1,000,000. Research proposals not selected as Initial Activities may be re-submitted during the Competitive Research Selection phase (see below). PIs of selected Initial Activities (and PIs of non-selected Initial Activities) will not be restricted from submitting new proposals during the open competition phase.

(ii) Competitive Research Selection

USAID maintains a commitment to fair and open competitive procurement processes out of conviction that this approach generates the highest-quality research and development outcomes. As a result, a majority of the funds allocated for research activities must be used for activities determined 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 MSIs) and from appropriate international institutions and the private sector. For each RFA that the ILIMS releases, the ME will organize an intellectually rigorous peer review process through which peer reviewers with a range of relevant expertise will be engaged. The Competitive Selection process must produce a portfolio of activities that collectively meet the ILIMS objectives and integrate cross-cutting issues, local capacity development, and private sector engagement.

Typically, ILs create and rely on an External Advisory Committee (EAC) that reviews all applications submitted to the ME in response to RFAs. Some ILs have utilized a peer review process whereby they invite researchers and specialists to review all or subsets of applications to ensure a well-rounded review process. The ME and its EAC then review the applications and the reviewer remarks and recommendations. The EAC then provides recommendations to the ME and USAID (represented through the AOR or an AOR designate) on activity selection. Finally, the ME and the AOR work together and through the advice and consent of relevant USAID Missions determine the portfolio of activities. The EAC then periodically reviews the progress of the activities and provides recommended changes as needed. All of these steps are not necessarily prescribed as required elements — Applicants must describe their proposed evaluation process as part of the Technical Application.

Requirement for Application: Applicants are required to submit as an Annex that will not count toward the page limit a draft RFA for one of the proposed Areas of Inquiry. This draft RFA will be reviewed as part of the Technical Application evaluation. 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, EAC, 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 and associated activities, perhaps as part of a research consortium, will best meet the strategic needs of USAID and its partners and the ILIMS objectives. Consequently, the ME also 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 ILIMS advisory body/ies (e.g., EAC) and final approval by the Agreement Officer (AO) or the Agreement Officer's Representative (if delegated to do so).

Applicants must describe the process of how the ME will determine whether such an activity is appropriate and how it will handle any Conflicts of Interest between proposed 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 ILIMS, other international research institutions, NARS, and the private sector, USAID is seeking an IL led by a prominent member of the global agricultural research community, a person highly experienced in producing valued global agricultural research goods. The ILIMS Director must be a thought leader in the area of irrigation or agricultural mechanization with an actionable vision for leading a global research community and capable of interfacing well at high levels of international organizations, national governments, and the private sector. One of the responsibilities of the Director will be to catalyze additional international investments and resources to increase 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 strengthening program that incorporates these objectives into the activity design, knowledge generated and evaluation tools. The GFSS objectives aim to advance food security and improve nutrition by focusing efforts around three interrelated and interdependent objectives discussed below. Please see Section A.IV.b. above for the Intermediate Results, Cross Cutting Intermediate Results, and Complementary Results that this Innovation Lab is expected to contribute to directly and indirectly.

(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"²² demonstrates that

²² <https://openknowledge.worldbank.org/bitstream/handle/10986/32350/9781464813931.pdf>

agricultural growth is up to four times more effective in reducing extreme poverty than 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. The GFSS has multiple objectives (intermediate results), and FTF Innovation Lab research investments are often in a position to 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 this Innovation Lab's research program will lead to generating new knowledge, improved systems, innovations, and technologies that contribute to inclusive, agriculture-led economic growth.

(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.

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 Innovation Lab should become an important source of risk-reducing innovations, technologies and knowledge.

Applicants must demonstrate a clear understanding of how the Innovation Lab's research efforts will lead to improved and/or new systems, methods, innovations, and technologies that will 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 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 Innovation Lab will focus research efforts on discovering, identifying, creating, and upgrading systems, methods, innovations, and technologies that identify and strengthen opportunities for smallholder producers to sustainably and economically produce safe, nutritious, bountiful crops.

A.IV.d.3. Incorporation of Cross-Cutting Issues

The ME will develop a coherent approach to ensure that essential cross-cutting issues are addressed at both the program level and incorporated within individual component activities as appropriate. It is important to note that the envisioned Target Product Profiles for the various research outputs must consider many of the cross-cutting issues and their relevance to other actors in the irrigation and mechanization supply chains and enabling environment systems. The ME will serve as an important check to ensure that these concerns are fully addressed as far as the objectives of the ILIMS allow.

Applicants must ensure that the following cross-cutting issues are addressed in their Application, both across the IL portfolio and within component activities. Applicants are encouraged to utilize external sources, especially the ones provided within this program description and as footnotes, to guide their understanding of these issues beyond the descriptions presented here. USAID understands that the ILIMS might not directly invest in the creation of new technologies, but Applicants should demonstrate broad understanding of the capacity and limitations of existing technologies, practices, and the systems that scale and maintain them along with consideration of relevant cross-cutting issues that can potentially impact success. A significant number of past USAID-supported technologies have not scaled, partly due to inadequate attention being given to these cross-cutting issues, including market dynamics and social norms, most notably gender, but also the opportunities that could be afforded to youth. Inclusion must be planned — it does not spontaneously happen.

(i) Gender Equality, Equity, and Participation

USAID policy requires that gender equality be addressed as appropriate in all USAID-funded activities and that programming contribute to the USAID Gender Equality and Female Empowerment Policy²³ objectives and the GFSS Cross-cutting Intermediate Result of advancing gender equity and female empowerment.²⁴

The ME is expected to outline key research processes or questions to support gender integration in each objective and proposed Area of Inquiry. The ILIMS 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. Gender-sensitivity begins from initial product profiling, continues through the innovation evaluation process, and assessment of market systems that support smallholder production, processing, and marketing. As the ILIMS develops technologies and systems improvements to accelerate agricultural transformation and improve food and nutrition security, it must ensure that such outcomes reflect and contribute to the development and accessibility needs of women and men as farmers, processors, and consumers. Similarly, the ILIMS must ensure that

²³ 2023 Gender Equality and Women's Empowerment Policy. <https://www.usaid.gov/gender-policy>

²⁴ Please also see the GFSS Activity Design Guidance for Advancing Gender Equality and Women's Empowerment. <https://agrilinks.org/activities/guidance-and-tools-global-food-security-programs-fy-2022-2026>

efforts and outputs meet the 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 and technical information, cooperative membership, and financial services may differentially affect gendered uptake of proposed technologies, systems, and services. Because men and women are not homogenous groups, the ILIMS must, to the extent possible, be sensitive to this diversity, and explicitly recognize the specific needs among different communities.

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 stakeholders. Gender analysis and integration must be implemented as a cross-cutting effort within all activities. Additional guidance on integrating gender can be found in the Activity Design Guidance for Advancing Gender Equality and Women's Empowerment.

Applicants must demonstrate a clear understanding of gendered challenges and opportunities among small-scale producers and processors that can be addressed through targeted policies and improved engagement with institutions and women's organizations involved in the irrigation and mechanization market systems. Applicants must also describe strategies to reduce barriers to entry and advancement in research for women as scientists and as productive members of food systems. Where this information is unavailable, Applicants must address knowledge gaps to ensure that outputs and outcomes of research conducted under the ILIMS are beneficial to both women and men.

(ii) Youth Inclusion

Similarly, yet distinct from the gender requirements noted above, the 2012 Youth in Development Policy²⁵ (updated in 2022) mandates the inclusion of youth priorities (ages 10 – 29) across USAID's development 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.²⁶ The ILIMS must be a youth-sensitive program that will develop knowledge, recommendations, tools, and strategies that recognize and account for the needs and multi-dimensional roles of youth in the diffusion, marketing and availability of appropriately-scaled technologies to support small-scale agricultural production.

Because young people are not homogenous groups, the ILIMS must, to the extent possible, be sensitive to this diversity, and explicitly recognize the specific needs and economic aspirations of various groups within the broader category of youth. In some instances, it may be necessary to conduct an analysis that improves the evidence base and allows for better targeting of youth in livelihood-generating activities. Youth analysis must be integrated within all ILIMS activities.

²⁵ <https://www.usaid.gov/policy/youth>

²⁶ <http://www.youthpower.org/>

Applicants must outline key research processes or questions to support integration of priorities concerning youth in each objective and proposed Area of Inquiry. Through youth analysis, Applicants must demonstrate a clear understanding of young men's and women's distinct roles in agriculture innovation and market systems. Where this information is unavailable, Applicants must describe how they will assess and address knowledge gaps to ensure that outputs and outcomes of research conducted under the IL are beneficial to young men and women. Applicants must present an approach that addresses the critical need of a "pipeline" of interested youth who are willing to commit their professional lives toward advancing agriculture in their home countries. Additional guidance can be found in the GFSS Activity Design Guidance for Youth Empowerment and Livelihoods in Food Systems.²⁷

(iii) Nutrition and Food Safety

A well-nourished population, especially among women and children, is a high-level goal of the GFSS. The IL will contribute secondarily to the Multi-Sectoral Nutrition Strategy (MSNS)²⁸ through the pathways of increased availability and access to sufficient, safe and nutritious food and access to safe water and sanitation. These, however, are higher order projected outcomes of the IL via improved systems and availability of irrigation and mechanization technologies, appropriate implementation and management of multi-use water systems, and safeguarding freshwater resources from agricultural pollution.

Applicants must demonstrate a clear understanding of how the ILIMS's research efforts and local capacity development will lead to improved and/or new technologies and more effective enabling environment systems that will contribute to improved dietary and nutritional outcomes.

(iv) Resilience and Risk Management

The second objective of GFSS is strengthened resilience of people and systems.²⁹ 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 important to recognize that "Resilience" in this context is inclusive of both climatic and economic shocks and stresses. It is an essential condition for sustainably reducing global hunger, malnutrition, and poverty as well as to reduce reliance upon emergency food assistance. Evidence from USAID's resilience programming in Ethiopia's lowlands shows that households reached by comprehensive resilience programs were better able to maintain their food security status in the face of the severe drought in 2016, whereas households in other

²⁷ Please also see the GFSS Activity Design Guidance for Youth Empowerment and Livelihoods in Food Systems. <https://agrilinks.org/activities/guidance-and-tools-global-food-security-programs-fy-2022-2026>

²⁸ The USAID Multi-Sectoral Nutrition Strategy addresses pathways to optimal nutrition. <https://www.usaid.gov/nutrition-strategy>

²⁹ <https://www.usaid.gov/resilience/resources> and <https://www.feedthefuture.gov/resource/global-food-security-strategy-guidance-on-resilience/>

communities experienced a precipitous 30 percent decline.³⁰ Other studies have found that each \$1 spent on resilience yields almost \$3 in emergency food aid savings.³¹ Resilience is important for enabling people to escape and remain out of poverty, hunger, and malnutrition, and USAID's resilience work mitigates (averts) the need for humanitarian assistance in areas of recurrent crises.

Risk is the potential for an uncertain event or trend to have adverse consequences on lives; livelihoods; health; property; ecosystems and species; economic, social, and cultural assets; service provision (including environmental services); and infrastructure. Notably, risk exposure, particularly weather risk exposure, impacts behavior and livelihood decisions *ex ante*, regardless of whether the shock actually occurs.³² 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 GFSS Resilience objective also shares GFSS Intermediate Result 4 – Increased Sustainable Productivity, particularly through climate-smart approaches. This IL will contribute to the targets of the USAID 2022-2030 Climate Strategy³³ primarily through adaptation and mitigation. Irrigation and mechanization, implemented appropriately, provide farmers and producers with the tools and means to adapt to climate change and improve agricultural system resilience to short term drought. Through increasing crop yields, irrigation can reduce the greenhouse gas emission intensity of agricultural systems. Under the right conditions and agronomic practices, irrigation and mechanization can also increase soil health and sequester carbon in the soil. This IL will directly conduct research on these pathways, as there is still a large evidence gap to fill, especially in Feed the Future target countries, to validate these pathways and quantify their benefits towards greenhouse gas emission reductions.

The ME will implement a coherent approach to ensure that resilience and risk management is addressed in the context of research and capacity development efforts at the program level and incorporated within individual activities as appropriate. Applicants must demonstrate a clear understanding of how the ILIMS's research efforts will lead to increased resilience, risk management, and climate-smart agriculture.³⁴ Applicants must consider and detail how the ILIMS will strengthen functional capacities of local partners to adapt and respond to risks to

³⁰ Impact evaluation from the PRIME project. https://pdf.usaid.gov/pdf_docs/PA00WCWT.pdf

³¹ <https://www.feedthefuture.gov/resource/global-food-security-strategy-guidance-on-resilience/>

³² Please also see the GFSS Activity Design Guidance for Diversifying Livelihoods, Resilience, and Pathways Out of Poverty. <https://agrilinks.org/activities/guidance-and-tools-global-food-security-programs-fy-2022-2026>

³³ <https://www.usaid.gov/policy/climate-strategy>

³⁴ <https://www.agrilinks.org/search?criteria=climate+smart+agriculture>

realize the potential of innovation to strengthen the agriculture innovation and market systems.³⁵

(v) Inclusion

Key to inclusive agricultural and economic growth is the inclusion of those most marginalized. Whether building on prior women's economic empowerment theory and evidence or engaging youth or persons with disabilities in meaningful and creative ways, the technical products generated by the ILIMS will reflect considerations for inclusive agricultural development.³⁶ In addition, the ME's operations and methods on the ground will incorporate the capacity and tools to identify and address the factors that underlie marginalization related to the ILIMS's activities. USAID recognizes that sometimes this means direct engagement with marginalized groups, but other times inclusion impacts may be created indirectly, with care to monitor actual results — this is likely to be the point of concern for the ME. 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;³⁷ ethnic and religious minorities; indigenous peoples; LGBTQI (lesbian, gay, bisexual, transgender, queer, and intersex) persons;³⁸ widows and orphans; and other often-marginalized groups. The ME will be intentional about including and not excluding these persons from benefiting from the associated research and activities of the ILIMS.

Applicants must demonstrate a clear understanding of how the ILIMS's research efforts will lead to improved and/or new technologies and enabling environment systems that will be utilized to create agricultural transformation and create innovative market systems that are inclusive of all groups. This must also include a discussion on how the Applicant will ensure that the IL's local capacity strengthening activities promote inclusivity.

(vi) Conflict Sensitive Development

Working in the water and irrigation sector can be fraught with tensions and conflict in many locations. While wars between nations have rarely been fought solely over water, water access and rights have occasionally been the trigger leading to armed conflicts.³⁹ More often, local tensions flare up over water rights leading to conflict between groups or individuals within and between communities — this sometimes results in people getting hurt or killed.

Conflict integration recognizes that food security and conflict dynamics are inherently related,

³⁵ <https://tapipedia.org/framework/4-1-capacities>

³⁶ Please also see the GFSS Activity Design Guidance for Advancing Gender Equality and Female Empowerment. <https://agrilinks.org/activities/guidance-and-tools-global-food-security-programs-fy-2022-2026>

³⁷ <https://www.usaid.gov/inclusivedevelopment/disability-rights/disability>

³⁸ When working for the inclusion of LGBTQI persons, the concept of 'Do No Harm' is critical to their safety. See USAID LGBT Vision for Action, p. 8 for more. <https://www.usaid.gov/LGBTQI>

³⁹ International Water Event Database, <https://transboundarywaters.science.oregonstate.edu/content/international-water-event-database>.

and in order to maximize the benefits of one, the other must be considered as well. Success in complex conditions requires deliberate thought and action to identify gaps, complementarity, and points where flexibility and adaptation are needed in order to maximize the beneficial effects; there is no plug-and-play solution. Effective conflict integration across Feed the Future investments requires several key steps. By understanding the connections between conflict and food systems, we can ultimately improve prospects for success in the sector and create opportunities for peace.

Applicants must demonstrate a clear understanding of how the ILIMS will integrate a conflict sensitive approach in its activities, particularly work related to irrigation systems management research. This must also include a discussion on how the Applicant intends to integrate conflict sensitivity in local capacity strengthening activities.⁴⁰

A.IV.d.4. Addressing Climate Change and Natural Resource Management

The GFSS is abundantly clear on the threat that 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 agricultural pests and diseases. USAID also seeks sustainable approaches that do not exacerbate climate change or other environmental harm. 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 and adapting to the effects of a changing climate.

The Applicant must integrate throughout the application climate sensitive approaches and program management that equips researchers and producers with the tools necessary to increase the local capacity of researchers, systems, and producers to adapt to climate change and improve management of natural resources.

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

The long-term sustainability and success of food security and nutrition research investments are dependent on both continuous capacity strengthening for agricultural innovation and the hand off of research outputs to partners who effectively promote their widespread adoption and diffusion following a Product Life Cycle framework. Achieving scale must be planned from the start. To do so, FTF ILs must play an important role in partnering with sector stakeholders to identify opportunities and barriers in innovation and market systems through their research,

⁴⁰ Please also see the resources on USAID's Conflict Sensitivity Integration Hub (<https://sites.google.com/view/usaidsih/resource-library>) and the GFSS Activity Design Guidance for Conflict Integration (<https://agrilinks.org/activities/guidance-and-tools-global-food-security-programs-fy-2022-2026>).

as well as facilitating local system capacity strengthening and relationships that are necessary to scale use of beneficial technologies and practices. Many technologies require private or public sector engagement to optimize diffusion and adoption at scale. Not every innovation will require the same set of actors or the same pathways, but discernment at the Target Product Profile (TPP) stage of research planning and design within a Product Life Cycle increases the likelihood of advancing global food security, resilience and related nutrition investment.

An agricultural innovation systems (AIS) approach may be a useful lens through which capacity strengthening and scaling may be considered. This approach shifts attention away from research and the supply of science and technology as an independent operation and towards the whole process and ecosystem 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 and incentives, and what new ideas they are experimenting with. And it pays explicit attention to this interaction of individuals and organizations across the domains of research and education, the private sector and markets, agricultural extension and other bridging institutions, and the enabling environment.

Using this lens, the Innovation Lab should focus on strengthening the critical capacities and relationships among public research and extension programs and private sector market systems, as appropriate. This will be achieved in part when the NARS adopt the technologies and knowledge developed by the Innovation Lab and have the organizational and relational capacities so that NARS are equipped to create new, improved innovations that are responsive to end users such as smallholders and small enterprises, private- and public-sector technology-scaling partners, and the needs of local AIS stakeholders.

A.IV.d.6. Local Capacity Strengthening and Localization

The long-term sustainability and success of food security and nutrition interventions are dependent on local actors taking action to design and implement solutions to local development challenges, learning and adapting from that action, and innovating and transforming over time. The development and adaptation of innovations suited to local contexts require a strong and empowered cadre of researchers and practitioners with advanced competencies and professional skills who are embedded within high-performing organizations and institutional networks. Integrating demand driven capacity strengthening that is valued locally into the design and implementation of the ILIMS across individual, organizational, and network levels is vital to sustaining its impact.

Under the GFSS, USAID's approach to improving human, organizational, and system performance is rooted in local capacity strengthening — “a strategic and intentional investment in the process of partnering with local actors — individuals, organizations, and networks — to jointly improve the performance of a local system to produce locally valued and sustainable

development outcomes.”⁴¹ Effective research capacity strengthening is a complex and long-term process. Local researchers are best placed to identify the aspirations, goals and needs, as well as the challenges and opportunities of their organizations and local research networks. USAID emphasizes the importance of capacity strengthening to improve development results by increasing local ownership, sustainability, and partnerships with other local organizations, donors, the public and private sectors, and other stakeholders.

The ME will ensure that Local Capacity Strengthening is a fundamental design consideration, both across the overarching program and within individual program activities as appropriate. To the extent possible, Local Capacity Strengthening efforts must be integrated into research activity budgets (and sub-award budgets) as support for training, workshops, conferences, and meetings for the purpose of professional development of students and researchers associated with the IL. However, the ME must also reserve a small portion of central funds to facilitate such events and support additional students or staff to attend as needs arise. Well-justified, standalone capacity-strengthening activities also may be appropriate.

An important facet of a system of organizational development includes the incorporation of the private sector and organized farmers’ groups to enable technologies, practices, and management systems to be implemented at scale during and after the life of the ILIMS; therefore the local capacity strengthening approach must necessarily include a plan to improve the capacity of local private sector and other non-research stakeholders.

The IL will utilize multi-stakeholder platforms (MSPs) to ensure efforts remain relevant to FtF target households and the people and organizations working in the systems that support irrigation and mechanization technologies and services for those target households. The IL will also be required to empower local research partners (also members of the MSPs) to lead research activities and, when necessary, pair them with appropriate partners in the US. To meet the goals of Global Food Security Research Strategy, this IL will also increase and strengthen the institutional capacity of local research partners.

Applicants must propose a process and initial ideas for a Local Capacity strengthening approach that aligns with USAID’s interests in Local Capacity Strengthening as described in the aforementioned policy documents. Although a more detailed strategy can be proposed after the IL award is made, Applicants must outline a general approach to Local Capacity Strengthening and describe the individuals or groups who will benefit from the program, how they will benefit, and how the benefits will contribute to development outcomes.

Applicants must also consider how the proposed local capacity strengthening program can complement other USAID investments, including the work of other FTF ILs and/or USAID local capacity strengthening efforts, and strive to collaborate where possible in synergistic activities, especially those aimed at organizational and institutional relationship strengthening.

⁴¹ USAID Local Capacity Strengthening Policy. <https://www.usaid.gov/policy/local-capacity-strengthening>

For additional insights on USAID’s vision and approach to localization, Applicants can consult the following documents: the USAID Vision and Approach to Localization,⁴² USAID Local Systems Framework,⁴³ the Local Capacity Strengthening Policy,⁴⁴ and the Locally Led Development Fact Sheet. The Improved Water Resources Management for Agricultural Systems Activity Design Guidance also offers sector-specific guidance.⁴⁵

A.IV.d.7. Product Life Cycle Framework

As described in the Global Food Security Research Strategy, product research represents one stage within a continuous, iterative process by which new food security innovations (including technologies, practices, and knowledge) are developed, validated, disseminated, and adopted in order to enhance prosperity, resilience, and nutrition. To ultimately yield maximum impact in FTF countries, a facilitative approach is typically required to move potential innovation from the research stage to initial adoption by a small number of direct beneficiaries, and ultimately to widespread, sustained adoption at the population level. In order to maximize the potential for research outputs to ultimately achieve development impact, USAID/RFS ensures that best practices to promote technology adoption are integrated into research activities at the earliest stages of design and implementation. This includes:

- Developing a written Target Product Profile based upon market segmentation research and analysis aimed at understanding and codifying the products and traits desired by the market (farmer, processors, customers).
- During initial R&D activity design and implementation, identifying potential product delivery and dissemination pathways that will ultimately support the diffusion of an innovation.
- Cultivating active and increasing collaboration between researchers and potential public-private scaling partners as innovations advance through the research and development process, beginning at the earliest phase of research design.
- Using participatory research methodologies to engage intended end-users and potential public/private sector disseminators in co-design and validation, ensuring that traits and characteristics preferred by target market segments (smallholder farmers, processors, customers) guide product selection during the upstream research process.
- Soliciting and responding to ongoing, iterative feedback from end-users, stakeholders and market system actors to inform upstream research activities throughout the product research and development process.
- Facilitating successful technology scaling through implementing USAID/RFS

⁴² Localization at USAID: The Vision and Approach. <https://www.usaid.gov/localization>

⁴³ Local Systems: A Framework for Supporting Sustained Development. <https://www.usaid.gov/policy/local-systems-framework>

⁴⁴ Local Capacity Strengthening Policy. <https://www.usaid.gov/policy/local-capacity-strengthening>

⁴⁵ Please also see the GFSS Activity Design Guidance for Improved Water Resources Management for Agricultural Systems. <https://agrilinks.org/activities/guidance-and-tools-global-food-security-programs-fy-2022-2026>

agricultural development approaches that consider the structure and function of local product supply and distribution systems in order to promote effective, equitable dissemination of agricultural inputs and other technologies to their intended beneficiaries.

The Product Life Cycle (PLC) is the standardized process that every product undergoes as it matures, from inception through disposal. The RFS PLC Framework captures three main features: a) the development of a Target Product Profile (TPP) drawing on market segmentation research, b) the Product Life Cycle stages that characterize the development of an innovation from definition, to research and development, to commercialization, adoption and eventual phase out, and c) the specific stage gate criteria, established in advance in accordance with the TPP, that must be met at each stage in order to advance (Figure 2). The product life cycle tracks a product as it advances from one stage to the next, using established criteria at each stage to determine whether the product can advance through the “gate” and progress to the next stage. Stage gate criteria include matching key characteristics defined in the TPP as well as other conditions that must be satisfied in order to launch activities required in the next stage. Although primarily oriented toward crop development and other physical innovations, the PLC framework is nonetheless a useful tool for managing research and capacity development of non-physical innovations such as finance products, policies, and systems.

A life-cycle approach to product development therefore positions activities and partners for long-term success by ensuring that even shorter incremental award phases are designed, managed, and implemented within the strategic context market demand of a product’s full life cycle. Forging a strong partnership with appropriate public-private research, development and scaling partners is therefore desired in the earliest phase of research prioritization and design.

Figure 2. RFS Product Life Cycle Stages.

Product Life Cycle Stages	Stage 1 Product Profile	Stage 2 Discovery	Stage 3 Proof of Concept	Stage 4 Validation	Stage 5 Selection	Stage 6 Release
Outcome Achieved	Target product profile (TPP) developed (based upon market research and segmentation)	Identification and selection of product components based upon TPP	Development of pre-products or prototypes	Superior candidates screened through small plot trials	Final candidate selection based on demonstrated value-add	Regulatory approval, variety release and registration
Product Life Cycle Stages	Stage 7 (Commercial) Introduction	Stage 8 Growth	Stage 9 Maturity	Stage 10 Decline	Stage 11 Phase Out	
Outcome Achieved	Resources, commitment and incentives for widespread adoption identified	Confirmation of widespread adoption	Adoption has plateaued	Data demonstrates significant multi-year decline	Improved replacement technology exists	

A.IV.d.8. Private Sector Engagement

Because public-private pathways can be especially valuable for moving publicly-funded research products to the private sector for scaling and broader dissemination, the ILIMS will focus on strengthening the critical relationships among supported research programs and national and private sector research and development entities, as appropriate. Together, these actors can jointly develop an effective upstream research and downstream development and distribution system within a virtuous cycle whereby agricultural and market system innovations are continuously informed by and adjusted to local contexts. Such a system will be able to function without additional support from donors. This will be achieved, in no small part, through the involvement of NARS that can adopt technologies developed by the ILIMS to create, through multi-stakeholder consultations, new products that are better appropriate to local contexts.

For research investments to contribute to achieving development gains in nutrition, resilience, or agriculture-led economic growth in FTF countries, research programs must play an important role in ensuring that research outputs are ultimately handed off to partners who can effectively promote their widespread adoption in a manner that enhances food and nutrition security for the target population. The process by which research outputs undergo progressive dissemination, adoption, and impact across expanding geographies and populations is referred to as “scaling.” Scaling can occur via a variety of different delivery pathways, ranging from commercialization by the private sector to dissemination by public-sector or civil-society partners (or a combination thereof).

Although scaling of technologies, practices, or approaches may not be within the immediate purview of the ILIMS, consideration of downstream adoption pathways and end-user demand can not be deferred until the final moments of transfer to a scaling partner. Therefore, research partners must actively address issues of downstream handoff and eventual scaling of outputs throughout all stages of research activity design, selection, and implementation, as an essential element of a research program’s technical and management approach.

Best practices to maximize the scaling potential and development impact of research outputs include:⁴⁶

- 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.
- Use participatory research methodologies that engage intended end-users and potential scaling partners, especially the private sector, in co-design development and testing of innovations.

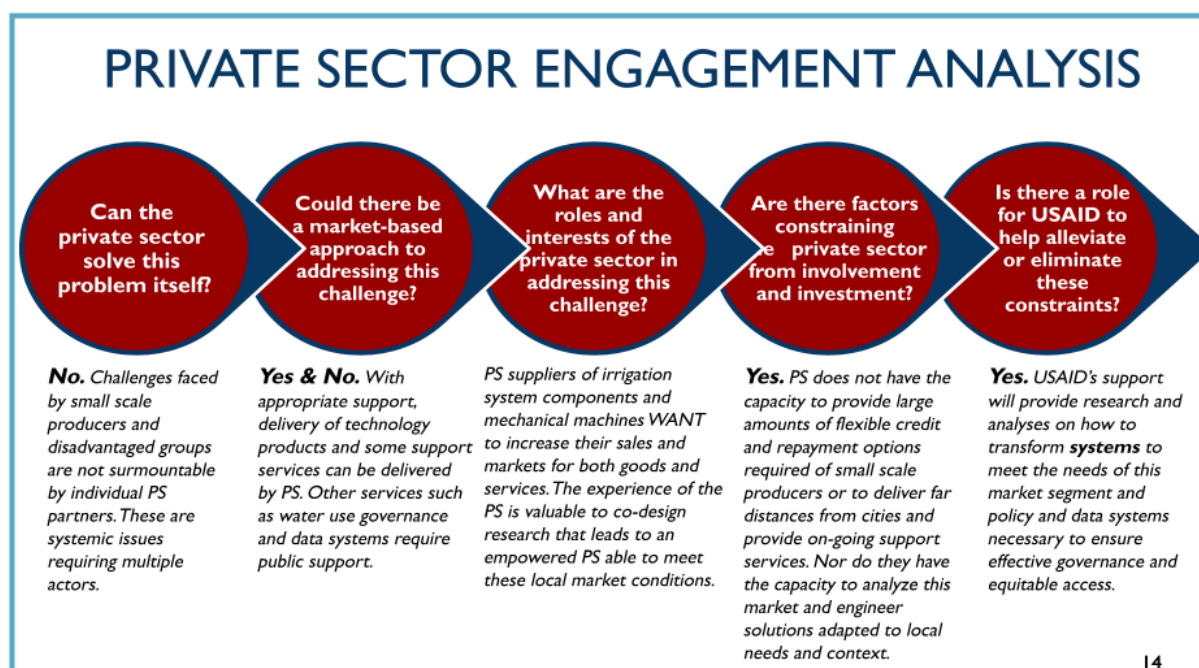
⁴⁶ <https://www.usaid.gov/what-we-do/agriculture-and-food-security/us-government-global-food-security-strategy>

- 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 capacity of local scaling partners.

The private sector will be engaged to participate in the research phase and use of technologies and knowledge generated by the IL. This IL can benefit from the experience of the private sector in technology design, customer (user) demand and preferences, and distribution networks. Therefore, each Applicant must provide their process to identify and include private sector partners, particularly local private sector partners, the expected contributions (not necessarily financial) to the IL, and the benefits of such inclusion to the private sector partners. The focus will be on private sector entities in the areas of technology research and development, import and distribution specialists, finance providers, agri-dealers of all sizes, and other market systems actors, including less formal or informal actors. Efforts should be made to understand informal private sector financing because, in some contexts, it can be crucial to the acquisition by “base of pyramid” users of technologies that may be well-suited to local conditions but are considered not profitable by the formal private sector.

In response to these expectations for development-oriented research programming, the ILIMS is required, much less to generate more knowledge, and improved technologies and practices, but primarily to make proven technologies and research outputs available for uptake by partners who will take them to scale. USAID/RFS and Missions have various mechanisms that may be available to lead these scaling efforts. Public Private Partnerships can also be a valuable mechanism through which to take research outputs to scale by taking advantage of each partner’s ability to share resources (i.e. knowledge and technological assets), industry expertise, investment support, managerial expertise, and more. Applicants are encouraged to include private sector partners in their applications.

Figure 3. An illustration of the private sector engagement analysis.



A.IV.d.9. Geographic Focus

Research outputs of the ILIMS must be primarily focused on achieving global and regional impacts, rather than focusing more narrowly on topics and questions that will benefit only national or subnational areas. As a key component of the proposed program description, Applicants must select target countries in which to conduct research and capacity-strengthening activities funded under the Leader Award. Additionally, the ME must be able to expand activities into other countries in which USAID invests agriculture and nutrition 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 (post-award), 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.)

USAID recognizes that this program will not have the resources and will not be expected to work in each FTF target country. Therefore, Applicants are required to select target countries for activities in their application and must select a minimum of four countries in a minimum of two regions described below where there exist the best opportunities to meet the IL objectives. The application must justify the target country selection using at least the following three primary criteria: (1) ability of local research institutions to support activities detailed in this program description, (2) the level of interest of local scientists to advance priorities of the

ILIMS, and (3) the importance placed on irrigation and mechanization technologies by the local USAID Mission. Applicants are encouraged to present and use additional criteria for choosing target countries in order to present the strongest case for each country. Other countries may be proposed by the Applicant, but all target countries selected must collectively optimize tradeoffs among multiple selection rationale. During the co-creation process after the Apparently Successful Applicant is identified, USAID will work with the Applicant to finalize the list of target countries for the ILIMS.

Alternatively, Applicants may describe a process whereby research and local capacity development activities will be chosen through a collaborative and/or competitive process that leads to formation of a target group of countries.

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.

In addition to the countries selected as part of the leader award, the ME must also be able and willing to accept buy-in and Associate Award funding to conduct activities on behalf of USAID Missions and Washington-based offices within the scope of the program and in any country which USAID has authority to work in.

West Africa Region

FTF target countries: Ghana, Liberia, Mali, Niger, Nigeria, and Senegal.

Additional Resilience focus country: Burkina Faso.

Strategic partner country: Benin

Regional Research and Development Institutions: Economic Community of West African States (ECOWAS), West and Central African Council for Agricultural Research and Development (CORAF / WECARD), Africa Rice Center.

East and Southern Africa Region

FTF target countries: DRC, Ethiopia, Kenya, Madagascar, Malawi, Mozambique, Rwanda, Tanzania, Uganda, and Zambia.

Additional Resilience focus countries: Somalia, S. Sudan, and Zimbabwe.

Regional Research and Development Institutions: Common Market for Eastern and Southern Africa (COMESA), Alliance for Commodity Trade in Eastern and Southern Africa (ACTESA), the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA), International Center for Agricultural Research in the Dry Areas (ICARDA)

Asia

FTF target countries: Bangladesh and Nepal.

Strategic partner country: India

Regional Research and Development Institutions: The Association of Southeast Asian Nations (ASEAN), Australian Agency for International Development, International Water Management Institute (IWMI), International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), International Rice Research Institute (IRRI).

Latin America and the Caribbean

FTF target countries: Guatemala and Honduras

Additional Resilience focus country: Haiti

Regional Research and Development Institutions: Tropical Agricultural Research and Higher Education Center (CATIE in Spanish), International Center for Tropical Agriculture (CIAT in Spanish).

A.IV.e. Approach to Ensure Accountability

A.IV.e.1. Staffing Plan

To ensure successful implementation of essential technical and management functions, Applicants must clearly define the 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 that will be proposed for Key Personnel (i.e., a person could be proposed by multiple Applicants). “Key Personnel” of the ILIMS will be the Director and the Associate, Assistant or Deputy Director. The proposed technical team, which will include the Key Personnel and may include Technical Specialists, must collectively demonstrate strong technical capacity in gender-responsive programming, local capacity development (i.e., in a developing country context), and scaling innovations through public-private cooperation.

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 the 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. USAID values gender diversity and equity among its programs, including among the staffing of the programs that it supports; applicants must consider gender diversity and equity in its staffing plan.

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 by the Applicant institution. If such a structure is proposed, the Applicant must clearly describe 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 the management and implementation of the ILIMS, and serves as USAID's principal point of contact for all issues regarding the IL. The Director publicly represents the ILIMS 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 themes 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 IL 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 ILIMS (e.g., to free the Director to spend more time coordinating with relevant stakeholders) and the impact to Level of Effort (LOE) for both the Director and Deputy Director. After the start of the IL, the Director may decide to transfer some of these responsibilities to other staff contingent upon approval by USAID.

The Director has significant, time-intensive responsibilities and is envisioned as a mostly full-time position (0.80 to 0.95 LOE); however, if the Director meets the subject matter expertise qualifications but cannot commit to full-time management responsibilities, a lower level of 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 at minimum a Ph.D. (or equivalent advanced degree) in a subject relevant to international agricultural research as described in this Program Description, 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. Experience integrating gender, social sciences, environmental, and nutritional considerations into research programs is required.

Applicants must identify the person proposed to serve as the Director with a complete description including (1) role and responsibilities for IL 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 4 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 page limit. (Note again that USAID discourages exclusivity for these candidate positions, i.e. the same candidate may be proposed in more than one application.)

(ii) Associate or Deputy Director

The Associate or Deputy Director supports the Director and serves as IL leader when called upon. The Associate Director also has significant, time-intensive responsibilities and is envisioned as a mostly full-time position (0.80 to 0.95 LOE). The Associate or Deputy Director must hold at least a Master's or equivalent advanced university degree in a subject relevant to agricultural research, a minimum of 5 years relevant technical expertise, and demonstrated program management competency. If the Director does not have experience managing large, USAID-style programs, the Associate or Deputy Director must hold such experience.

Applicants must identify the person proposed to serve as the Associate or Deputy Director with a complete description including (1) role and responsibilities for IL leadership and implementation, including any that are to be transferred from the Director; (2) proposed LOE; and (3) qualifications for this position, including qualifications for any responsibilities to be transferred from the Director. Higher consideration will be given to Applicants who propose a candidate with experience most closely matching the requirements described above. A CV (limited to 4 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 page limit. (Note again that USAID discourages exclusivity for these candidate positions, i.e. the same candidate may be proposed in more than one application.)

(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 IL. 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 IL 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, and reporting aligned with USAID requirements.

- In-country coordination to ensure that decisions and analyses are consistent with on-the-ground realities, that activities are aligned with USAID country and regional priorities and geographies, and that critical partners are engaged from the beginning of the project.
- Creation and management of subcontractors or sub-grants to other responsible institutions to conduct research activities, including international institutions and the private sector. 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 sub-awardees. The accounting system must be able to account for funds allocated to each country, including through sub-sub-awards, and by funding origination year.

These other personnel are not subject to approval by USAID (except sub-contracts and sub-awards require prior approval of the Agreement Officer) 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 IL, Technical Specialists may be necessary or preferred to perform specific functions such as conducting scoping studies to inform an RFA (e.g., gender, private sector capacity, etc.) or monitor programming, according to a plan of action directed by the IL Director. The Technical Specialists' areas of expertise might include, but are not limited to, the following: agriculture, soil health, agricultural engineering, human nutrition, knowledge management, community development, gender, youth, climate, risks management and resilience, capacity development, policy, and market development. Their expertise may be cross-cutting in several technical fields. Technical Specialists may be local or regional hires with length of assignment determined by need.

A.IV.e.2. Advisory Committee

Applicants must describe how the ME will hold research and capacity development activity teams accountable for progress along the defined impact pathway and address how the ME will oversee activities, along with means to correct, cancel, or terminate under-performing activities. Typically, ILs accomplish this partly through the oversight of an Advisory Committee (e.g., External Advisory Panel, External Advisory Committee). Applicants must describe the mandate and oversight to be ascribed to any such committee and the desired composition of the members.

A.IV.e.3. Monitoring, Evaluation, and Learning

A “Collaboration, Learning and Adapting” (CLA) approach⁴⁷ 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 proposed areas of research. The ME will adaptively manage the portfolio of activities (contracts or grants) to ensure optimal implementation.

Applicants must submit a preliminary Activity Monitoring, Evaluation, and Learning (MEL) plan⁴⁸ that includes a relevant theory of change describing impact pathways, an accompanying logic model or results framework, performance indicators, and a description of how learning and adaptive management will occur. The plan must specify how the monitoring plan and indicators will measure progress and how cross-cutting issues are incorporated and measured throughout the impact pathways. The theory of change and logic model must also acknowledge what is and isn’t within the spheres of control and influence of the 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 smallholder and commercial farmers, researchers, government decision-makers, development professionals, and the private sector (micro and local to multinational).

The ME will institute procedures that provide activity teams with appropriate technical guidance and feedback in the collection and use of data, to ensure that planned research and local capacity development benchmarks are met, to ensure they report against targets using appropriate data collection, data security and analysis methodologies to assure compliance and accountability, and to address unexpected challenges and opportunities. The ME will also ensure that activity teams are accountable for progress along their impact pathway.

The Applicant’s approach for ensuring that research activities will be oriented to development impact must be clearly articulated throughout the Technical Application. Performance management requires access to useful and timely information on a broad range of factors throughout the life of a program. Without planning how and when this information will be obtained, it will be difficult or impossible, once activities start, to put systems in place to ensure adequate information flow to enable ongoing decision-making and to meet performance reporting requirements. The ME must take adequate steps to plan and institutionalize a process for collecting performance information as part of everyday work. This performance information

⁴⁷ <https://usaidlearninglab.org/cla>

⁴⁸ See ADS 201.3.4.9 (current as of 04 May 2023) (<https://www.usaid.gov/ads/policy/200/201>) for USAID requirements on Activity MEL Plans and the How-To Note for Activity MEL Plans (<https://usaidlearninglab.org/resources/how-note-activity-monitoring-evaluation-and-learning-plan>). Note that “Activity” in this sense means the entire Innovation Lab for Irrigation & Mechanization Systems. See also the MEL resources found on Agrilinks here: <https://agrilinks.org/post/feed-future-monitoring-evaluation-and-learning-mel-toolbox>

consists of the indicators that will measure progress toward intermediate and final results and includes baseline data and periodic and final performance targets.

Furthermore, to prepare for possible funding through Associate Awards or buy-ins for the Innovation Lab to implement or support technology-scaling activities, the Applicant must include an approach to measuring and reporting on development impacts.

The preliminary Activity MEL Plan must include a plan and schedule to establish the following:

- Performance indicators that will measure progress toward achieving the desired results and account for gender and youth dimensions and cross-cutting issues, as relevant. The Activity MEL Plan must include appropriate FTF indicators. These mandatory indicators, required as applicable, are defined under the Standard Program Structure (SPS) indicator categories in the most recent version of the FTF Indicators Handbook: Definition Sheets.⁴⁹ In addition to FTF standard indicators, custom indicators should be considered that track implementation, specific activity milestone, and report on important results and outcomes that aren't captured under the standard FTF indicators. Indicators can include quantitative data (e.g., individuals receiving training) and qualitative information (e.g., description of technology adoption and reported barriers). Indicator definitions and required disaggregation categories can change from year to year. At times, FTF may designate additional mandatory indicators or drop mandatory designations.
 - A baseline year and value for the indicators.
 - Performance targets, with appropriate benchmarks and milestones of progress.
 - Disaggregation of all people-level performance indicators by sex and age cohort.
 - Methodology for collecting data and 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 actual performance of all the performance information.
- 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).
- Designation of the individuals or contractors responsible for any or all parts of performance monitoring, including data aggregation, review, approval, and entry into the Development Information Solution (DIS) platform.
- Incorporate the measurement and reporting of cross-cutting issues throughout the impact pathways.
- Plans for monitoring context and emerging risks that could affect the achievement of the activity's results.

⁴⁹ <https://agrilinks.org/post/feed-future-indicator-handbook>

- In the budget documentation, the estimated costs of collecting, analyzing, and reporting performance data.
- A calendar of performance management tasks (i.e. 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 IL, with approximate timeline for the completion of each task, recognizing there will be modifications necessary based on the final research and activity portfolio.
- An Evaluation Plan that includes possible evaluation questions, ideas for evaluation design, and methodologies to be used. This plan may be utilized by an external evaluation team to design an external evaluation that may take place in year 4.

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

Key performance targets will be identified after award, but one target will be (EG3.2-2) at least 50% of students supported in degree granting programs will be women. Other key performance indicators will include (EG.3.2-27) number of technologies deployed and under development (as measured by both the standard research phases and the new Product Lifecycle framework), (CBLD 9) number of local organizations showing increased performance, and (STIR-12) number of peer-reviewed articles published.

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 IL participants) and externally, such as with stakeholders, including the public and private sectors and civil society. The ME must provide approaches to ensure that structures and opportunities are in place to facilitate cross-project learning within the IL portfolio, and data generated through the IL must be regularly curated by the ME. For this IL especially, knowledge garnered downstream about technology users and their preferences must be communicated upstream to researchers as part of a learning and feedback cycle and integrated into the product profiles. The ME must also 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. The ME must 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, please visit Agrilinks⁵⁰ and the USAID Learning Lab.⁵¹

A.IV.e.4. 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

⁵⁰ <http://agrilinks.org/>

⁵¹ <http://usaidlearninglab.org/>

member of the Open Government Partnership.⁵² 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.⁵³ The ME is responsible for developing a Data Management Plan in accordance with USAID Development Data ADS Chapter 579⁵⁴ and storing and maintaining data in such a way as to deliver the data to the USAID Development Data Library (DDL).⁵⁵

Applicants must describe the kinds of data expected to be generated and how the ILIMS 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.5. Subawardee Engagement Plan

Requirement for Application

Applicants are required to submit as an annex a Sub-awardee Engagement Plan (SEP) which 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 sub-awardees 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 sub-awardees. 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 letters of support and commitment for those partners already identified as well as the process they intend to undertake following the 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 and 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.

⁵² <http://www.opengovpartnership.org/>

⁵³ <https://resources.data.gov/>

⁵⁴ <http://www.usaid.gov/ads/policy/500/579>

⁵⁵ <https://data.usaid.gov/>

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.

A.IV.f. Management of Buy-ins and Associate Awards

The ILIMS will be implemented under a Leader with Associates (LWA) mechanism. Funding will be obligated under the Leader Award to support the program as described in this program description. The IL may also accept up to \$21,000,000 of additional funds, through buy-ins and Associate Awards from USAID Missions or Washington Offices, to support additional activities related to its research mission. Buy-ins and Associate Awards permit USAID Missions or Washington 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 activities, or both. Therefore, the ME must be prepared to identify and seek out partners to address a broad array of questions relevant to the program. However, **these additional activities are NOT guaranteed.**

Buy-ins to the LWA are particularly valuable tools for Missions to access a global research program such as the ILIMS. Buy-ins are generally used to fund small activities (considered \$2,000,000 or less) that will end no later than the Leader Award period of performance. However, there may be limited circumstances where Missions may request buy-ins of up to \$3,000,000 to respond to an urgent crisis. Buy-ins are managed under the Leader Award (i.e., financial and activity reporting are incorporated into the documentation of the leader program and submitted to the Operating Unit funding the Leader Award).

If a Mission, Bureau, or Office prefers to maintain direct management of an activity, the unit may choose to issue an Associate Award to an IL. An Associate Award is also the preferred mechanism if the additional requested work will be more than the buy-in limit. 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 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 to be successful by the ILs.

Applicants must describe how the IL 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.

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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) Award pursuant to this notice of funding opportunity. Subject to funding availability and at the discretion of the Agency, the Bureau for Resilience and Food Security (RFS) intends to provide \$19 million in total USAID core funding over a five (5) year period. The ceiling for this program is up to \$40 million. It is estimated that up to \$3.0 million will be obligated to the Leader Award in the first year as leader funding from RFS, and up to \$4.0 million per year thereafter, for a total of up to \$19 million in leader 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 OUs, USAID will allow up to an additional \$21 million as a pool for potential Associate Awards and 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 \$19 million leader 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 2023. The estimated end date will be on or about August 2028.

B.III. Substantial Involvement

USAID intends to award one (1) 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 A. The intended purpose of the Agreement Officer's Representative (AOR) involvement during the implementation of the program is to assist the recipient in achieving the supported objectives. These approvals must be made by the Agreement Officer except where explicitly delegated to the AOR.

Substantial involvement will include:

1. Approval of Specified Key Personnel (i.e. Director and Associate/Assistant (or Deputy) Director).

2. Approval of the Recipient's overall Activity MEL Plan, including impact pathway and theory of change documentation, performance evaluation, indicator selection, and annual indicator reporting. This will be delegated to the AOR.
3. Approval of the Recipient's Data Management Plan. This will be delegated to the AOR.
4. Approval of the Recipient's IEE modifications, PURSUAPs, and Environmental Mitigation & Monitoring Plan. This will be delegated to the AOR.
5. Approval of Annual Implementation Plans, work plans, and semi-annual and annual reports.
6. Approval of international trips. This will be delegated to the AOR.
7. Concurrence and approval on the recipients of sub-awards. This will be reviewed and coordinated with the AOR. However, the AO will have final approval for sub-awards.
8. Concurrence on the substantive provisions of research RFAs and contracts for research and capacity development activities.
9. 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. This will be delegated to the AOR who will hold a de facto membership on such body/bodies and may, as necessary, designate an alternate USAID staff member to represent the interests of USAID.
10. 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 is 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 937 (the United States, the 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 and under the subject program is to transfer funds to accomplish a public purpose of support or stimulation of the Feed the Future Innovation Lab for Irrigation & Mechanization Systems which is authorized by Federal statute. The successful Recipient will be responsible for ensuring the achievement of the

program objectives and the efficient and effective administration of the award through the 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.

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 acquisition and assistance awards (this may be verified through SAM.gov and all entities must have a Unique Identifier Number issued through SAM.gov or be issued an exception by the Agreement Officer according to 2 CFR 25). 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 U.S. Government. After award, it is the Recipient’s responsibility to ensure that no transactions are conducted with excluded parties.

USAID encourages Applicants to include qualified 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, and Applicants must be aware of the distinction between procurement contracts (acquisition) and sub-awards (assistance). Contracts are subject to 2 CFR 200.318-326 and the USAID standard provision entitled "USAID Eligibility Rules for Goods and Services." Sub-awards 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 described in Section D.IV. below.

USAID welcomes applications from organizations that 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. A cost-share or match is 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, among other things, 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 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 proposed award, only one of the two institutions can submit an application. The Applicant must include a letter of support and commitment from the partner institution that will not count toward the Application page limit. 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

In order for an award to be made, the USAID AO must evaluate the 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, the 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 the 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.

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SECTION D: APPLICATION AND SUBMISSION INFORMATION

D.I. Agency Point of Contact

Name: Sandy Solofonirina

Title: Agreement Specialist

Email: ssolofonirina@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.

In order to maintain the integrity of the competitive process, USAID staff, to include Mission staff, will be unable to advise or provide information to potential Applicants that would be used in preparation of the application. Therefore, Applicants are advised not to contact USAID Missions or any other USAID staff members regarding this NOFO. Information on Mission strategies and programs can be accessed from <http://feedthefuture.gov/> and Mission websites (<http://www.usaid.gov/where-we-work>).

D.III. Amendments to the NOFO

If this NOFO is amended, all terms and conditions that are 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 the Applicants to be aware of published amendments to the NOFO through 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: the Technical Application and the Business (Cost) Application. This subsection addresses general content requirements applying to the full application. Please see subsections 5 and 6, below, for information on the 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; and
- A Unique Entity Identifier (UEI) 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.
- Applications must be written in English.
- Use standard 8 ½" x 11", single sided, single-spaced, 12 point Calibri 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 Calibri requirement.
- Applications must be 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 ssolofonirina@usaid.gov. Applications **must not** be submitted through www.grants.gov. USAID cannot accept emails over 25MB in size. If 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 concise. The application must demonstrate the Applicant's capabilities and expertise with respect to achieving the goals of this program. 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 irrigation and mechanization systems research outputs contribute to the three GFSS objectives;
- ii. The role that research investments have in supporting global, regional and national food security.

b. Technical 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 Irrigation and Mechanization Systems Innovation Lab as well as critical assumptions.
- ii. *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 Irrigation and Mechanization Systems 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 among 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 activities to prioritize, with appropriate conflict of interest safeguards and scientific quality. The draft RFA (as described in section A.IV.c.3.(ii)) should be included as an annex. See (i) General Instructions for the Technical Application below for more detail on the RFA content.
- iii. *Approach to ensure relevance of the program portfolio* - This includes linkages with other donors, research institutions, producer representatives and the private sector entities to ensure the relevance of the program portfolio.
1. Global Engagement of the Innovation Lab Director - This should discuss the extent to which the qualifications of the proposed Innovation Lab 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. One-CGIAR centers, regional research oversight bodies, and NARS).
 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. Addressing Climate Change and Natural Resource Management - This should discuss the proposed approach to addressing a) climate change impacts on irrigation and mechanization systems and related food security and economic outcomes, b) irrigation and mechanization impacts on the climate, and c) natural resource management, ensuring sustainability and risk management.
 4. Agricultural Innovation Systems Approach (including Private Sector Engagement, Local System Capacity strengthening) - This should include a plan for a) strengthening critical capacities and

relationships among public research and extension programs, using market-based approaches and target product profiles (see A.IV.d.7), and b) engaging private and public sector actors, and end users throughout the program to strengthen relevance, commercialization, adoption, scaling and equitable benefits.

5. RFS's Product Life Cycle Framework - Approach to a) develop target product profiles (TPPs) drawing on market segmentation research, b) show product life cycle (PLC) stages from initial stage of research to commercialization, adoption and eventual phase out, and c) specify stage gate criteria in advancing innovations from one stage to the next in the PLC.
6. Private Sector Engagement – Applicants are expected to include private sector partners in their applications. Applicants must discuss how linkages with the private sector will facilitate research and development and must include a plan for ensuring that these linkages do not solely remain on paper. Applicants must discuss what strengths in the private sector will be sought after and leveraged and what strengths the IL will contribute.
7. Geographic Focus - This should outline how target countries will be selected and justified.

b. Management Approach

- i. *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, communications and outreach, and integrating a CLA approach.
 3. Sub-awardee Engagement Plan (SEP) - The SEP, as described in Section A.III.e.5., should be included as an annex, 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.

4. 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 Innovation Lab to adequately monitor and manage such potential new activities.

(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. 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 applications how they propose to address such issues. In addition, the Program Description 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.

The Application must include, in an annex that will not count against the page limitation, a draft RFA pertaining to one of the geographic or technical foci described in Section A.IV. 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 each 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 sub-awardees (i.e. transparency and openness) about requirements for training, capacity-strengthening, 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.

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 (SF) listed below. They can be accessed electronically through <https://www.grants.gov/web/grants/forms/sf-424-family.html>.
 - Instructions and Application for Federal Assistance (SF-424)
 - Instructions and Budget Information for Non-Construction Programs (SF-424A)
 - Instructions and Assurances for Non-Construction Programs (SF-424B)

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 <https://www.usaid.gov/about-us/agency-policy/series-300/references-chapter/303may>
- 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,
 - Unique Entity Identifier (UEI) 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. Unique Entity Identifier (UEI) Number and SAM Requirements

USAID may not award to an applicant unless the applicant has complied with all applicable unique entity identifier (UEI 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 Unique Entity Identifier (UEI) 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.

UEI Number & 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, they 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 feedfuture.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/about-us/agency-policy/series-300/references-chapter/303mba>.

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, including pre-award costs of later subawards, under this award without the explicit written approval of the Agreement Officer. Such requests must be approved prior to expenditure as retroactive approval will not be provided.

At the time of award and throughout implementation, funding restrictions may be placed on particular types of work and/or in particular geographies.

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.IV. 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.

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SECTION E: APPLICATION REVIEW INFORMATION

E.I. Review and Selection Process

E.I.a. 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 grant(s) or 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.

E.I.b. 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. Applicants are not required to provide any amount of cost share and any proposed cost share amount will not be used as part of any review criteria.

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 application in the same order as the selection criteria. Applications will be reviewed and evaluated in accordance with the following criteria. The Factors are listed in ascending order of importance with Factor 3 being the most important and Factor 1 being the least important. 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 (lowest weight)	Background and Context
Sub-factor 1(a)	Contribution of research outputs to GFSS and USAID objectives
Sub-factor 1(b)	Relationship of research investment to food security
Factor 2	Technical Approach
Sub-factor 2(a)	Approach to ensure scientific quality
Sub-factor 2(b)	Suitability of Results Framework and Theory of Change
Factor 3 (highest weight)	Management Approach
Sub-factor 3(a)	Approach to ensure relevance of portfolio

Sub-factor 3(b)	Approach to ensure accountability
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E.II.a. 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 strengthening 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 supporting the national food security of FTF countries.

Factor 2: Technical Approach - The Applicant's demonstrated understanding of:

- *Sub-factor 2(a) - Suitability of 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. Theory of change and results framework must include impact pathways that acknowledge what is and is not within the spheres of control and influence of the Innovation Lab as well as critical assumptions.
- *Sub-factor 2(b) - Approach to ensure scientific quality* - Extent to which the development and selection of the research portfolio and the draft RFA ensures high scientific quality. 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 activities that achieve long-term development impact for host country beneficiaries/end users, build effectively on any relevant past efforts in this area, and have high potential for sustainability and scaling.
 - Portfolio Selection - Process for selecting a high impact, diverse portfolio (in Areas of Inquiry, PIs, countries, institutions, and cross-cutting issues), including a strategy for which needs and opportunities to prioritize, with appropriate conflict of interest safeguards and scientific quality.
 - A draft RFA, as described in Section A.IV.c.3. (ii), must be included as an annex.

- Sub-Awardee Engagement Plan (SEP) - The SEP, as described in Section A.IV.e.5., should be included as an annex and 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.

Factor 3: Management Approach - The Applicant's overall vision and approach for implementing a global research program that includes the following:

- *Sub-factor 3(a) - Approach to ensure relevance of portfolio* - Extent to which linkages with other donors, research institutions, and relevant private and public sector entities (inclusive of smallholder representatives) ensure the relevance of the program portfolio.
 - Global Engagement of the Director - Qualifications of the proposed Innovation Lab 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.
 - Conflict Sensitive Development - Proposed approach to integrate Conflict Sensitive Development principles into the research *and* capacity development of the program.
 - Addressing Climate Change and Natural Resource Management: Proposed approach to addressing a) climate change impacts on irrigation management systems and frameworks, b) irrigation systems and mechanization impacts on the climate, and c) natural resource management, particularly water resources.
 - Agricultural Innovation Systems Approach - Approach to a) strengthening critical local system capacities and relationships among public research and extension programs, using market-based approaches, and b) engaging private and public sector actors, and end users throughout the program to strengthen relevance, commercialization, adoption, scaling, sustainability and equitable benefits.
 - Product Life Cycle Framework - Approach to a) develop target product profiles (TPPs) drawing on market segmentation research, b) show product life cycle (PLC) stages from initial stage of research to commercialization, adoption and eventual phase out, and c) specify stage gate criteria in advancing innovations from one stage to the next in the PLC.
 - Private Sector Engagement – Approach to a) meaningful engagement of the private sector, b) how linkages with the private sector will facilitate research

and development, and c) what strengths in the private sector will be sought after and leveraged.

- Geographic Focus - How target countries will be selected and justified.
- *Sub-factor 3(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 and responsibilities of the Advisory Committee.
 - Monitoring, Evaluation and Learning - Plans for program monitoring and evaluation, knowledge sharing and learning, and communications and outreach, including CLA approach.
 - Management of Associate Awards - Process for accommodating additional funding through Associate Awards and the plan for expansion of the Innovation Lab to adequately monitor and manage such potential new activities.

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SECTION F: FEDERAL AWARD ADMINISTRATION INFORMATION

F.I. Federal Award Notices

The Leader Award is anticipated to be made on or by August 2023.

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 US organizations: Standard Provisions for Non-U.S. Non-governmental Organizations. See Annex 1, 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.

In the additional comments section of the SF-425, the Recipient must include the total funds to date distributed to non-US institutions, including to private contractors in foreign countries, by country. This will allow the AOR to inform any requests on funding provided to beneficiary countries. These amounts should not include funds used for temporary travel of US-based staff to foreign countries — similarly, foreign-based staff funding and travel to other foreign countries, including the US, should be attributed to their home country. Often, U.S. Government funding has different restricted countries for each year of funding; the Recipient’s accounting system should be able to keep each year’s funding obligation separate and allocable based upon any such restrictions.

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 Solution⁵⁶ (DIS) portal, and more detailed reporting on FTF EG. 3.2-7 indicator in the Research Rack Up. 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 Recipient may request from the AOR a waiver for the first semi-annual report if the award date is February 1 or later.) 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 IL.

⁵⁶ <https://www.usaid.gov/work-usaid/resources-for-partners/development-information-solution>

- 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). In a separate, password protected document, a list of each supported student, their country of origin, institutional affiliation, degree sought, and degree progress must be submitted to the AOR.
- 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 Recipient may request from the AOR a waiver for the first annual report if the award date is August 1 or later.) The reports are to follow the draft outline sent by the AOR but generally will include the following sections: Title Page, Management Entity (ME) Information, Technical and/or Advisory Committee Information, Map or List of Countries Where the Lab Works, List of Program Partners, Acronyms, Glossary, Table of Contents, Executive Summary, Program Activities and Highlights, Focus Country(ies) Key Accomplishments, Research Program Overview and Structure, Theory of Change and Impact Pathways(s), Research Project Reports, Associate Award Research Project Reports, Human and Institutional Capacity Development, Innovation Transfer and Scaling Partnerships, Environmental Management and Mitigation Plan (EMMP), Open Data Management Plan, Governance and ME Activities, Other Topics, Issues, three Success Stories, and any required Appendices. A copy of the Annual Report shall also be submitted to the USAID Development Experience Clearinghouse. Please reference the web site <https://dec.usaid.gov/dec/home/Default.aspx> for instructions on submission and any questions your organization may have on the reporting requirements. Ensure that the AOR receives a copy of any reports submitted to the DEC.

(iii) Research Rack Up

Research Rack Up data covering the period October 1 through September 30, or the equivalent time period as per the award date, shall be submitted via the Research Rack Up data collection tool. The Research Rack Up provides more detailed data on the Feed the Future indicator EG.3.2-7 (Technologies and Practices under Research, Development, and Dissemination)⁵⁷ and 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

⁵⁷ Feed the Future Indicator Handbook, <https://agrilinks.org/post/feed-future-indicator-handbook>

Food Security Strategy. Data counts reported into the Research Rack Up⁵⁸ should align with data reported into DIS.

(iv) Notifications

The Recipient will be required to immediately notify the AOR and the Agreement Officer of developments that have a significant impact on the award-supported activities. Also, notification shall be given in the case of problems, delays, or adverse conditions which materially impair the ability to meet the objectives of the award. This notification shall include a statement of the action taken or contemplated, and any assistance needed to resolve the situation.

(v) Cumulative Report

The cumulative report, which does not replace the Final Performance Report, shall cover the life of award or the first five years, whichever is shorter. In the event that the award has a Period of Performance up to seven years, the cumulative report shall be delayed to cover the additional time period and shall be due following the end of the extension unless specified otherwise, in writing, by the AOR. If the award is extended such that the Period of Performance is greater than seven years, a cumulative report for the first five years must be submitted no later than 90 days after the end of the first five years and a second cumulative report submitted no later than 90 days after the end of the extension period that covers only the extension time period. The cumulative report(s) shall include the following sections: Title Page, Executive Summary, Program Partners, Program Goals and Objectives, Overview of Activities, Accomplishments, Utilization of Research Outputs, Further Challenges and Opportunities. The exact format and page limit will be determined by the AOR. The cumulative report shall incorporate the findings and results that were included in previous annual reports, and is due no later than 90 days after the completion, extension, expiration, or termination of the award. The cumulative report shall be submitted to the AOR for approval. Once approved, a copy of the cumulative report shall also be submitted to the USAID Development Experience Clearinghouse.

(vi) Associate Awards

Reporting requirements and evaluation plans for Associate Awards will be specified in such awards. The Recipient will be required to provide an electronic copy of all reports produced under Associate Awards to the AOR with the Leader Award.

(vii) Final Performance Report

⁵⁸ Feed the Future Research Rack Up Data Collection Tool Manual, https://docs.google.com/document/d/1lar9PWLoHUyxXr3PiNjoY_ge6gU-WE-p/edit?usp=sharing&oid=103239647465760670700&rtpof=true&sd=true

The Final Performance Report will replace the last Semi-Annual (if the end of the award is between December 1 and May 30) or Annual Report (if the end of the award is between June 1 and November 30) and must include the information described in Section F.III.b.(i) & (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 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

(i) 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 <https://www.feedthefuture.gov/branding-guidelines/>.

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 draft Branding Strategy and Marking Plan as a prerequisite for any resulting award. This may 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.e.), 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.

(ii) 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 buy-ins 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. Work plans must also include a draft international travel plan for the year and identify any discrete events requiring Participant Support Costs to be approved by the AO.

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.

(iii) Evaluation

The 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 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 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 performance evaluation will evaluate the implementation of the global research program, including incorporation of the leader award 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.

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 IL's impact.

(iv) 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.

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 (sometimes referred to as "Reg 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 sub-awardees 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 sub-award 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 sub-award 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.

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SECTION G: FEDERAL AWARDING AGENCY CONTACT

All questions and application submissions regarding this NOFO must reference “7200AA23RFA00015” in the subject line when directed to:

Sandy Solofonirina
Agreement Specialist USAID
M/OAA/RFS

Email: ssolofonirina@usaid.gov

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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.

H.I. 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 disclosed, 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.”

H.II. 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.

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ANNEX 1 - 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

Require d	Not Require d	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 2022)
		RAA4. INDIRECT COSTS – DE MINIMIS RATE (NOVEMBER 2020)
		RAA6. VOLUNTARY POPULATION PLANNING ACTIVITIES – SUPPLEMENTAL REQUIREMENTS (JANUARY 2009)
		RAA7. PROTECTION OF THE INDIVIDUAL AS A RESEARCH SUBJECT (APRIL 1998)
		RAA8. CARE OF LABORATORY ANIMALS (MARCH 2004)
		RAA9. TITLE TO AND CARE OF PROPERTY (COOPERATING COUNTRY TITLE) (DECEMBER 2022)
		RAA10. COST SHARING (MATCHING) (FEBRUARY 2012)
		RAA11. PROHIBITION OF ASSISTANCE TO DRUG TRAFFICKERS (JUNE 1999)
		RAA12. INVESTMENT PROMOTION (DECEMBER 2022)
		RAA13. REPORTING HOST GOVERNMENT TAXES (DECEMBER 2022)
		RAA14. FOREIGN GOVERNMENT DELEGATIONS TO INTERNATIONAL CONFERENCES (JUNE 2012)

		RAA15. CONSCIENCE CLAUSE IMPLEMENTATION (ASSISTANCE) (FEBRUARY 2012)
		RAA16. CONDOMS (ASSISTANCE) (SEPTEMBER 2014)
		RAA17. PROHIBITION ON THE PROMOTION OR ADVOCACY OF THE LEGALIZATION OR PRACTICE OF PROSTITUTION OR SEX TRAFFICKING (ASSISTANCE) (SEPTEMBER 2014)
		RAA19. STANDARDS FOR ACCESSIBILITY FOR THE DISABLED IN USAID ASSISTANCE AWARDS INVOLVING CONSTRUCTION (SEPTEMBER 2004)
		RAA23. UNIVERSAL IDENTIFIER AND SYSTEM FOR AWARD MANAGEMENT (DECEMBER 2022)
		RAA24. REPORTING SUBAWARDS AND EXECUTIVE COMPENSATION (DECEMBER 2022)
		RAA25. PATENT REPORTING PROCEDURES (DECEMBER 2022)
		RAA26. ACCESS TO USAID FACILITIES AND USAID'S INFORMATION SYSTEMS (AUGUST 2013)
		RAA27. CONTRACT PROVISION FOR DBA INSURANCE UNDER RECIPIENT PROCUREMENTS (DECEMBER 2022)
		RAA28. [RESERVED]
		RAA29. RESERVED
		RAA30. PROGRAM INCOME (AUGUST 2020)
		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)
		RAA6. UNIVERSAL IDENTIFIER AND SYSTEM OF AWARD MANAGEMENT (DECEMBER 2022)
		RAA7. REPORTING SUBAWARDS AND EXECUTIVE COMPENSATION (DECEMBER 2022)
		RAA8. SUBAWARDS (DECEMBER 2014)
		RAA9. TRAVEL AND INTERNATIONAL AIR TRANSPORTATION (DECEMBER 2014)
		RAA10. OCEAN SHIPMENT OF GOODS (JUNE 2012)
		RAA11. REPORTING HOST GOVERNMENT TAXES (DECEMBER 2022)
		RAA12. PATENT RIGHTS (DECEMBER 2022)
		RAA13. [RESERVED]
		RAA14. INVESTMENT PROMOTION (DECEMBER 2022)
		RAA15. COST SHARE (JUNE 2012)
		RAA16. PROGRAM INCOME (AUGUST 2020)
		RAA17. FOREIGN GOVERNMENT DELEGATIONS TO INTERNATIONAL CONFERENCES (JUNE 2012)
		RAA18. STANDARDS FOR ACCESSIBILITY FOR THE DISABLED IN USAID ASSISTANCE AWARDS INVOLVING CONSTRUCTION (SEPTEMBER 2004)
		RAA19. PROTECTION OF HUMAN RESEARCH SUBJECTS (JUNE 2012)
		RAA20. STATEMENT FOR IMPLEMENTERS OF ANTI-TRAFFICKING ACTIVITIES ON LACK OF SUPPORT FOR PROSTITUTION (JUNE 2012)
		RAA21. ELIGIBILITY OF SUBRECIPIENTS OF ANTI-TRAFFICKING FUNDS (JUNE 2012)
		RAA22. PROHIBITION ON THE USE OF ANTI-TRAFFICKING FUNDS TO PROMOTE, SUPPORT, OR ADVOCATE FOR THE LEGALIZATION OR PRACTICE OF PROSTITUTION (JUNE 2012)
		RAA23. VOLUNTARY POPULATION PLANNING ACTIVITIES – SUPPLEMENTAL REQUIREMENTS (JANUARY 2009)

		RAA24. CONSCIENCE CLAUSE IMPLEMENTATION (ASSISTANCE) (FEBRUARY 2012)
		RAA25. CONDOMS (ASSISTANCE) (SEPTEMBER 2014)
		RAA26. PROHIBITION ON THE PROMOTION OR ADVOCACY OF THE LEGALIZATION OR PRACTICE OF PROSTITUTION OR SEX TRAFFICKING (ASSISTANCE) (SEPTEMBER 2014)
		RAA27. LIMITATION ON SUBAWARDS TO NON-LOCAL ENTITIES (JULY 2014)
		RAA28. CONTRACT PROVISION FOR DBA INSURANCE UNDER RECIPIENT PROCUREMENTS (DECEMBER 2022)
		RAA29. [RESERVED]
		RAA30. RESERVED
		RAA31. NEVER CONTRACT WITH THE ENEMY (NOVEMBER 2020)

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