Partnerships for Enhanced Engagement in Research (PEER) 2016/2017 Solicitation (Revised, October 18, 2016)

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I. Program Synopsis

The United States Agency for International Development (USAID) is the U.S. Government's (USG) preeminent foreign assistance agency. The agency is dedicated to helping nations meet the needs of their citizens by providing healthcare, education, and economic opportunity to end extreme poverty and promote democratic, resilient societies. The U.S. Global Development Lab (The Lab) at USAID is bringing together a diverse set of partners to discover, test, and scale breakthrough solutions to address critical challenges in international development (http://www.usaid.gov/GlobalDevLab). A key element of this strategy is the support of scientific and technological research through the Partnerships for Enhanced Engagement in Research (PEER) program. PEER is a competitive awards program that invites scientists in developing countries to apply for funds to support research and capacity-building activities on topics of importance to USAID and conducted in partnership with USG-funded and selected private sector partners. The program is supported by USAID but implemented by the U.S. National Academies of Sciences, Engineering and Medicine (referred to as the National Academies).

Through PEER, the Lab leverages investments by other USG-supported agencies and private sector companies in scientific research and training in order to enhance the development priorities of USAID. USG-funded partners must be investigators who will contribute to the scientific merit and impact of PEER projects through expertise, skills, methodologies, laboratory access, and synergies with ongoing projects.

Solicitation Process

PEER proposal submission has two phases:

- **Phase 1**: A brief pre-proposal is required for all applicants. The deadline for submission of pre-proposals is **January 13, 2017**. Details for pre-proposal submission are provided in Section IX.
- **Phase 2:** If invited to submit a full proposal, applicants will be notified by the National Academies by **February 28, 2017**. The deadline for submission of full proposals is **April 17, 2017.**

II. Role of the National Academies of Sciences, Engineering, and Medicine

PEER is implemented by the National Academies of Sciences, Engineering, and Medicine, which will manage the proposal review process and disburse and monitor awards. Beyond the current program cycle, it is expected that solicitations for PEER will be issued annually in the fall, with details to be posted at http://www.nationalacademies.org/peer.

For further information, please contact the program staff at peer@nas.edu.

III. U.S. Government-Supported Agency Partners

The PEER program aims to leverage USG scientific investment in R&D to support USAID's development goals in priority countries. For this reason, developing country researchers are required to partner with a USG-funded researcher in order to apply for a PEER award. Through these partnerships, PEER applicants benefit from the skills, laboratory access, and other resources of their USG-supported partner. Both the PEER applicant and the USG-supported researcher benefit from one another's expertise and partner on truly collaborative research. Applicants to all focus areas must have already identified an eligible USG-supported partner.

The following USG-supported agencies have entered into an agreement with USAID and are participating in the PEER program. With some exceptions, researchers supported by these agencies are considered eligible as USG-supported partners. Additional eligibility requirements apply for each agency; please see Section VI for additional information on USG-supported partner criteria and for resources on identifying potential partners. Further information on USG-supported agencies participating in the PEER program can also be found on each agency's homepage.

- **Agricultural Research Service:** The USDA Agricultural Research Service conducts research to develop and transfer solutions to agricultural problems of high national priority and provide information access and dissemination to: ensure high-quality, safe food and other agricultural products; assess the nutritional needs of Americans; sustain a competitive agricultural economy; enhance the natural resource base and the environment; and provide economic opportunities for rural citizens, communities, and society as a whole. http://www.ars.usda.gov/main/main.htm

- **National Aeronautics and Space Administration:** NASA's vision is "to reach for new heights and reveal the unknown so that what we do and learn will benefit all humankind." Within the Earth Science Division, NASA aims to "advance knowledge of Earth as a system to meet the challenges of environmental change and to improve life on our planet". http://www.nasa.gov/

- **National Institute of Food and Agriculture:** The USDA NIFA strategy for global engagement centers on developing carefully considered partnerships that can advance U.S. research in agriculturally related fields. The agency administers federal funding to address agricultural issues. http://nifa.usda.gov/

- **National Institutes of Health:** NIH's mission is to seek fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to enhance health, lengthen life, and reduce illness and disability. http://www.nih.gov/

- **National Oceanic and Atmospheric Administration**: NOAA is a scientific agency within the U.S Department of Commerce focused on conditions of Earth's oceans and atmosphere. Through its six line offices and more than a dozen staff offices, NOAA serves as a leader in environmental intelligence and applied scientific research. Using a global network of observations, models, forecasts, and assessments, NOAA puts environmental information in the hands of people who need it. http://www.noaa.gov/

- **National Science Foundation:** NSF is an independent federal agency created by Congress in 1950 "to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense." NSF is the only federal agency whose mission includes support for all fields of fundamental science and engineering. http://www.nsf.gov/

- **Smithsonian Institution:** The Smithsonian's mission is to increase the diffusion of knowledge through a focus on discovery, creativity, excellence diversity, integrity, and service. Smithsonian science examines some of the world's most complex—and time-sensitive— problems. Whether they are protecting imperiled natural resources, assessing the consequences of climate change or keeping aircraft safe from bird strikes, Smithsonian scientists apply what they learn to improve the quality—and quantity—of life on Earth. More than 500 Smithsonian staff scientists, augmented by an equal number of fellows and hundreds of international collaborators, conduct research in field stations and laboratories on all seven continents and serve as national and international experts in a wide scope of disciplines including anthropology, astronomy, biology, geology, and paleontology. As a trust instrumentality of the United States, the Smithsonian Institution is pleased to participate in this program with agency partners. http://www.si.edu/

- **United States Forest Service:** The Forest Service is a multi-faceted agency that protects and manages 154 national forests and grasslands in 44 U.S. states and Puerto Rico and is the world's largest forestry research organization. Forest Service experts provide technical and financial help to U.S. state and local government agencies, businesses, and private landowners to help protect and manage non-federal forest and associated range and watershed lands. The Forest Service also has a dedicated International Programs office, which promotes sustainable forest management and biodiversity conservation internationally. By linking the skills of the field-based staff of the USDA Forest Service with partners overseas, the agency can address the most critical forestry issues and concerns. http://www.fs.fed.us/

- **United States Geological Survey:** The USGS serves the Nation by providing reliable scientific information to describe and understand the Earth; minimize loss of life and property from natural disasters; manage water, biological, energy, and mineral resources; and enhance and protect our quality of life. http://www.usgs.gov/

IV. 2016/2017 Focus Areas

The PEER program is accepting research proposals in the following focus areas. **Update:** Two new focus areas (Bangladesh/ Climate Change and RDMA/ Assessment of Fish Natural History) were added on October 17 and one more (Haiti/ Education) on October 18, 2016, following the release of the original call for proposals on October 7. PEER-eligible countries are listed for each focus area; applicants should review eligible country criteria carefully. More information for each focus area can be found by using the links below or reviewing the Focus Area appendices in Section X.

1. Multiple Countries/ Environmental Contaminants
2. Multiple Countries/ Digital Development for Feed the Future (D2FTF)
3. Indonesia/ Multiple Fields
4. Madagascar/ Biodiversity Friendly, Climate Resilient Human Development in Madagascar
5. South Africa/ Multiple Research Fields
6. RDMA Priority Countries/ Rapid Assessment of Tuna Fish Stocks in the South China and Sulu-Sulawesi Seas
7. RDMA Priority Countries/ Assessment of Fish Natural History in the Lower Mekong Basin
8. Bangladesh/ Climate Change
9. Haiti/ Education

PEER funding will be awarded to projects related to the focus areas specified above. Collaborative projects involving multiple developing countries that explore regional development issues are also encouraged. When writing pre-proposals, applicants should also consider how their proposed research and/or capacity building activities will contribute to USAID's objectives for development. More information about USAID including the agency's mission statement, structure, and technical and regional programs can be found on the USAID website: http://www.usaid.gov/.

Applications that explicitly connect their proposed research to the development goals of their country's USAID Mission will generally be more competitive. Country-specific development objectives are reflected in Country Development and Cooperation Strategy (CDCS) reports that are posted publicly on each USAID Mission's homepage. Each CDCS lays out high-level strategic priorities for each bilateral USAID Mission over a five-year time frame. We encourage PEER applicants to review CDCS reports and other documents specific to USAID Mission priorities and reflect how their proposed research may contribute to these high- level objectives. A link to USAID-approved CDCS reports can be found here: http://www.usaid.gov/results-and-data/planning/country-strategies-cdcs.

A directory of USAID Missions and links to home-pages can be found here: http://www.usaid.gov/mission-directory.

V. General Eligibility Information

The information included in this section is relevant to applicants to the PEER program in general. The country-specific focus areas have specific eligibility requirements and applicants are encouraged to review eligibility criteria under specific focus areas of interest. Additional information can also be found in the Frequently Asked Questions (FAQs).

PEER Applicants

Applicants who submit pre-proposals to PEER must be based at an academic institution, non-profit organization, or government-managed research laboratory, center, or institute in a PEER-eligible country. Applicants in government ministries who conduct research are also eligible, but will be screened for compliance with bilateral agreements on a case-by-case basis. We encourage applicants from government ministries to consult with PEER program staff at peer@nas.edu prior to submitting their pre-proposal.

PEER applicants must hold a career-track position or equivalent at their respective institution or organization. Applicants should be living and working in the country from which they are applying and

should be nationals (citizens or permanent residents) of a PEER-eligible country for the focus area to which they are applying.

To qualify for multi-institutional award status, PEER applicants are required to provide financial support to a researcher or research unit at another institution as part of their proposed project. Applicants who are invited to submit full proposals will be required to specify funds for activities to be implemented by partnering institutions in a separate budget table using the template to be provided.

Researchers from non-eligible countries and employees of for-profit firms in PEER-eligible countries may participate in projects using their own resources but are not permitted to serve as PIs, as PEER awards will not be issued to such organizations. All institutions will be vetted to determine compliance with USAID policies for receipt of funds. PEER awards will be issued to institutions or organizations, not to individuals. Female applicants are encouraged to apply.

PIs of currently active PEER awards are not eligible to apply to serve as PIs in future cycles of PEER until their first funded project has been successfully completed. For the current cycle of the program (Cycle 6), this successful completion date must be prior to **September 1, 2017.**

Prior PEER Awardees who re-apply for PEER funding must justify how their proposal is distinct from their prior PEER award and/or how the proposed work builds previous PEER work address new research questions.

PEER Applicant Eligibility Summary

- National of a PEER-eligible country
- Meets eligibility criteria for focus area to which applying
- Affiliated with and permanently based at an academic institution, non-profit organization, government-managed research laboratory or relevant government ministry in a PEER-eligible country

U.S. Government-Supported Partners

PEER applicants are required to partner with a USG-supported researcher from one of the following agencies: Agricultural Research Service (ARS), National Aeronautics and Space Administration (NASA), National Institute of Food and Agriculture (NIFA), National Institutes of Health (NIH), National Oceanic and Atmospheric Administration (NOAA), National Science Foundation (NSF), Smithsonian Institution, United States Forest Service (USFS), or United States Geological Survey (USGS). The role of the USG-supported partner is to provide complementary expertise and skills to the PEER project, but the USG-supported partner's research experience does not need to directly overlap. While partnerships are generally based on topical or disciplinary similarities, many PEER partnerships also provide access to specific methodologies or instrumentation otherwise unavailable to the PEER applicant.

PEER pre-proposals are not accepted from U.S.-based researchers.

USG-supported partners may either be intramural researchers or serve as a principal investigator or co-principal investigator of an active USG-funded research award. Active awards may include grants, cooperative agreements, or contracts. **In order to be eligible, the USG-supported partner award must remain active for at least 12 months after the expected start date of the PEER project (which may start no earlier than September 1, 2017) to ensure that both sides have resources available to support their collaboration.**

The pre-proposal application requires a brief letter of support from the USG-supported partner. For USG-supported partners serving as co-PIs of an active USG research award, a written letter of support from the lead PI must also accompany the application at the full proposal stage. For more information on USG co-PIs see the Partner Eligibility section of the Frequently Asked Questions on the PEER website.

In general, PEER funds may not be used to cover the USG-supported partner's salary, travel, or other expenses. USG-supported partners are encouraged to seek supplemental funds from their funding agencies. However, supplemental funds for USG-supported partners are not guaranteed by the PEER program and must be determined on a case-by-case basis by each participating agency. In exceptional cases in which, after the award is made, travel funding for USG-supported partner is found to be essential to the training objectives of the PEER project, PEER staff may authorize the use of limited amounts of PEER funds for this travel only, not for salary support for the USG-supported partner. Applicants should not count on this option in estimating their project budgets, however.

U.S. Government-Supported Partner Eligibility Summary

- Primary PI or co-PI of an active research award from USG-supported agency participating in the PEER program or intramural researcher employed by such an agency. The USG-supported partner award or intramural funding must remain active for at least 12 months after the start of the PEER project (which may start no earlier than September 1, 2017). If the USG-supported partner award expires prior to 12 months of overlap with the PEER award, a no-cost extension will need to be obtained before the PEER award can be issued.
- USG-supported partner's expertise aligns with and contributes to the PEER proposal.

To learn more about which researchers are eligible to participate as USG-supported partners and to find instructions for requesting a partner, applicants are encouraged to explore the website section "Find a USG-Supported Partner."

VI. Types of Research Activities Supported by PEER

PEER can be used to support a wide range of research methodologies, as long as pre-proposals address the priorities outlined in the focus areas. PEER can support multiple types of research including: the development of new technologies or instruments, proof-of concept proposals, formative studies, surveys, operational and implementation research, social science and behavior change research, systems research, and policy studies, among others. PEER also supports research awards from a wide range of academic disciplines including the natural, physical, social, economic, and behavioral sciences as well as engineering. Applicants are encouraged to clearly articulate how their proposed research project will impact their local, regional, or national communities.

Applicants are encouraged to consult the PEER website for a comprehensive list of projects funded in past cycles. *Proposals focused on basic science topics without clear relevance to USAID development objectives will not be eligible for PEER funding.*

Examples of research related activities that PEER will support include:

- Design and conduct of baseline surveys, modelling and simulation, implementation/operational research
- Primary data collection for undergraduate and graduate students or support for other field visits necessary for data collection by a member of the research team
- Exchanges and data analyses with USG supported partners
- Dissemination events and stakeholder meetings to translate research results to policy-makers and the community

In addition to research, PEER projects may also be used to support capacity building activities that contribute to research objectives including: education and training support for students, postdoctoral associates, and researchers; international travel; conference and workshop attendance; communications; equipment, materials, and supplies for developing country institutions and research networks.

There are some categories of research that PEER will **NOT** support:

- Implementation projects that lack a strong research component
- Dissertation or master's work of the PEER Principal Investigator (however, justified costs

for students supported under the award are allowable)
- Training programs, workshops, or conferences that are not tied to the proposed research project
- Randomized control trials (RCTs) for biomedical interventions such as vaccines, drugs, etc.
- Research conducted principally in the United States
- Research led by the USG-supported partner
- Projects that are not likely to yield any impact in low- and middle-income countries
- Basic research not directly linked to potential development impact
- Approaches that present unacceptable ethical or safety risks

Please review the Frequently Asked Questions section of the program web site for additional details or e- mail peer@nas.edu with other eligibility questions.

VII. Timeline

October 7, 2016	PEER solicitation posted on National Academies website
January 13, 2017	Pre-proposals due to National Academies
February 28, 2017	Selected applicants are invited by National Academies to submit a full proposal, all others are notified of declination
April 17, 2017	Full proposals due to National Academies
early August 2017	PEER awardees announced

VIII. Budget Information

Only a total estimated budget figure is required at the pre-proposal stage. Detailed budget requests and further justification will be requested from applicants invited to submit a full proposal. Total estimated budget numbers should be developed commensurate with the support needed to achieve the project goals. A budget template is available on the PEER website to help applicants better estimate anticipated total budget costs.

Most projects are anticipated to run for one to three years. Annual funding installments are dependent on completion of financial and technical reporting requirements. Single institution awards are anticipated to range in size from $40,000 to $80,000 (USD) per year for one to three years. A few larger and more complex projects (those involving multiple institutions and/or multiple countries, with one of them serving as the lead) may receive between $80,000 to $100,000 (USD) per year for up to three years. Requested funds can only be used to support costs for developing country researchers and institutions.

Applicants whose funding requests do not fit within these parameters are encouraged to contact PEER staff (peer@nas.edu) before preparing their estimated budget figure at the pre-proposal stage.

IX. Pre-Proposal Preparation and Submission Instructions

Pre-proposal applications are required for the PEER program. Pre-proposal submissions will be reviewed to ensure that invited full applications meet the eligibility criteria and focus area requirements articulated in Sections V and VI. The deadline for submission of pre-proposals is **January 13, 2017**.

When drafting a pre-proposal, applicants should convey the development impact of their proposed research for the focus area to which they are applying. Successful pre-proposals will include a clear statement of the project goals and explanations of how these goals will be achieved. Successful pre-proposals will also highlight the collaborative nature of the USG-funded partner and how the partnership will contribute to successful completion of the project.

Pre-Proposal Review Criteria

The pre-proposal review process will be managed by the National Academies. Pre-proposals will be evaluated by USAID and the National Academies based on the following criteria:

- PEER applicant compliance with eligibility requirements
- Participation of USG-supported partner, including verification of active research award or eligibility status
- Alignment with research priorities outlined in corresponding "Focus Area" section
- Development impact of proposed research
- If a prior PEER awardee, applicant must demonstrate how the proposed work is distinct from their prior PEER award, and/or how the proposed work significantly builds off the previous PEER award to achieve broader development impact

Applicants are required to submit a pre-proposal form through the PEER online system, completed in English. Paper and e-mail submissions are not accepted. Applicants are encouraged to check the Frequently Asked Questions (FAQs) section of the program website for additional details. After the pre-proposals are reviewed, applicants will receive notification from National Academies program staff that indicates one of the following:

- Pre-proposal has been deemed eligible and relevant, with an invitation to submit a full proposal
- Minor issues with eligibility and relevance, with an invitation to submit with issues addressed
- Pre-proposal deemed ineligible or insufficiently relevant to USAID objectives and not eligible for full proposal invitation

Policy on Fraudulent or Plagiarized Data and Documents in Award Submissions

Applicants to PEER are advised that the program has a zero-tolerance policy regarding the submission of fraudulent or plagiarized data and documents as part of award pre-proposals and full proposal process. Any such cases discovered by PEER staff or brought to their attention by program sponsors, review panelists, partners, or members of the public will be investigated immediately. If the presence of fraudulent or plagiarized materials in a submission is verified, the following actions will be taken:

- The pre-proposal or proposal will be removed from further consideration for funding.
- The applicant will be notified of the findings of the investigation and will be placed on a debarment list prohibiting him or her from submitting any future pre-proposals or proposals to PEER.
- An appropriate official at the applicant's institution will be advised of the case and provided with copies of the fraudulent or plagiarized materials for use in any further investigations or actions in accordance with that institution's policies.
- The USAID Agreement Officer's Representative assigned to PEER will be notified so that information may be forwarded to the USAID Office of Inspector General to assist them in determining the applicant's eligibility for any future support from USAID directly or through other implementing partners.

Pre-Proposal Template

The pre-proposal submission template, which may be accessed by clicking the "Ready to Apply" button on the PEER website, includes the following sections:

a. PEER applicant information
b. USG-supported partner information, including the partner's USG-funded award title, number, funding agency, program officer and contact information
c. Project description (approximately 2 pages of text total), in which the following must be addressed:
   • Project aims and objectives
   • Significance of the research as it relates to a particular focus area and development impact to local, regional or national community
   • A description of how the expertise of the USG-supported partner will complement the proposed project
   • Other potential partners with whom the applicant will collaborate on the project (for example, government agencies, USAID Missions, co-PIs, research networks, laboratories, and other implementing partners) and the nature of the planned collaborations
d. Estimated total budget figure and intention to apply for a single or multiple institution award. The budget for PEER projects varies depending on the proposed research scope, and the duration of projects may be up to three years (**submissions for the D2FTF focus area may be no more than one year in duration**). Typical projects fall within the following ranges:
   • Single institution: U.S. $40,000 - $80,000/year
   • Multiple institutions: U.S. $80,000 - $100,000/year
e. Appendices:
   • A brief CV of no more than two pages for the PEER applicant. Please use the attached standard format for CVs. The CV should provide citations for no more than 5-10 recent and relevant publications.
   • A brief letter of support written by the USG-supported partner explaining his or her intention to collaborate on the proposed PEER project. The letter should also include the partner's USG-funded award title, number, funding agency, program officer and contact information for his or her active USG award.

X. Focus Area Appendices

FOCUS AREA: Multiple Countries/ Environmental Contaminants

Eligible Countries:

ASIA	SUB-SAHARAN AFRICA	LATIN AMERICA AND CARIBBEAN
Afghanistan	Angola	Brazil
Bangladesh	Benin	Colombia
Burma	Botswana	Dominican Republic
Cambodia	Ethiopia	El Salvador
India	Ghana	Guatemala
Indonesia	Guinea	Haiti
Kazakhstan	Kenya	Honduras
Kyrgyz Republic	Liberia	Jamaica
Laos	Madagascar	Mexico
Nepal	Malawi	Nicaragua
Pakistan	Mali	Peru
Philippines	Mozambique	
Sri Lanka	Namibia	**MIDDLE EAST**
Tajikistan	Nigeria	
Thailand	Rwanda	Egypt
Turkmenistan	Senegal	Iraq
Uzbekistan	Sierra Leone	Jordan
Vietnam	South Africa	Lebanon
	Tanzania	Morocco
EUROPE AND EURASIA	Uganda	Tunisia
	Zambia	West Bank/Gaza
Albania		
Armenia		
Azerbaijan		
Bosnia and Herzegovina		
Georgia		
Kosovo		
Macedonia		
Moldova		
Serbia		

Additional Criteria for Applicants:

Please see Section V of the Solicitation for General Eligibility requirements.

Objectives:

Environmental contamination of air, water and land is a serious global challenge. One-tenth of all deaths worldwide are attributable to air pollution; 2 million tons of human, industrial, and agricultural waste are dumped into the world's surface water daily; 59% of the world's municipal solid waste is disposed in landfills.

PEER is seeking to support research projects focused on understanding environmental contaminants from various sources such as conflict, industrialization, urbanization, and agricultural activity and their impacts on people, the environment, and economies. Environmental contaminants may occur in water,

soil, air, and food; they include, but are not limited to:

- Metals such as lead, chromium, arsenic, cadmium, and mercury
- Byproducts of mining operations and smelting, oil and natural gas extraction, oil refining, coal power generation, and chemical or industrial manufacturing
- Human and urban pollutants, such as untreated sewage, garbage, landfills, and electronic waste
- Agricultural pollutants such as fertilizer and pesticide runoff and animal wastes
- Gaseous pollutants and particulates
- Remnants of conflict such as buried explosives, residue from biological or chemical weapons, and other discarded munitions

PEER encourages proposals that connect their research with public health implications. Projects of interest include those focused on detecting, recycling, or reducing emission of these contaminants. Research that investigates methods of waste cleanup and recycling that could generate local income, improve agriculture, or produce clean energy are especially encouraged. Interdisciplinary research teams that are able to contribute to multiple levels and aspects of the research question(s) and that can ultimately contribute to local, community, and/or national policy changes are highly encouraged to apply.

PEER will accept proposals that incorporate novel research methods and study design, such as crowdsourcing or other citizen-science approaches. PEER will also accept social science projects that investigate the effects of environmental contamination and remediation on disenfranchised, minority, refugee, or displaced peoples or the possibilities for human behavior change. Innovative projects that look at the use of forests, oceans, wetlands, and other natural sources of absorbing and decontaminating waste will also be considered. Projects that field test novel techniques or technologies for contaminant detection, recycling, or prevention are encouraged if they are designed to help understand or remedy the effects of contamination on people, environments, or economies.

Focus Area: Multiple Countries/ Digital Development for Feed the Future (D2FTF)

Eligible Countries:

- Bangladesh
- Cambodia
- Ethiopia
- Ghana
- Guatemala
- Haiti
- Honduras

- Kenya
- Liberia
- Malawi
- Mali
- Mozambique
- Nepal
- Rwanda

- Senegal
- Tajikistan
- Tanzania
- Uganda
- Zambia

Additional Criteria for Applicants:

- Proposed projects must be **one year** in length with a **maximum budget of $100,000.** Additionally, proposals should describe specific milestones that will be reached throughout the year. These milestones are expected to be shared with the D2FTF team at USAID as they are reached.
- Please see Section V of the Solicitation for General Eligibility requirements.

Objectives:

With a clear focus on fighting poverty, hunger and undernutrition, President Obama launched a global food security initiative called Feed the Future. Building on the standard set by the African Union when its members committed to develop comprehensive food security plans, and working alongside thousands of partners from the private sector, civil society, and local leaders, Feed the Future pioneered a new model of development—one grounded in country leadership, policy reforms, cutting-edge measurement and evidence, and a relentless focus on delivering real results.

Digital Development for Feed the Future (D2FTF) is a three-year collaboration between the Global Development Lab and the Bureau for Food Security within USAID, with the broad goals of increasing the integration of digital technologies across Feed the Future activities to help accelerate its top level goals of increased agricultural productivity and improved nutrition for women and children.

In alignment with D2FTF goals, the PEER Program is committed to filling gaps in research in Feed the Future countries. The PEER program is interested in supporting projects that contribute to improved uses of digital technologies for agricultural development. Specifically, projects that use digital solutions to:

- Increase linkages along the agricultural value chain, including
    - Increasing the transmission of relevant agricultural information to end users such as farmers and/or agricultural extension workers in near real-time
    - Creating products that can be used by multiple actors along the value chain on interoperable, integrated platforms
- Enable individuals, households, communities, and systems to recover from agriculture-related stresses and to absorb shocks more effectively
- Catalyze and scale Feed The Future Innovation Lab products, digitally, to reach a larger number of people and communities effectively and sustainably
- Increase the sustainability of existing and/or proven digital solutions for agricultural use

- Demonstrate the value of incorporating digital tools and technologies (including mobile money, digital financial services, mobile-enabled extension information delivery, and real-time data collection and analysis) into agricultural production
- Demonstrate the role of mobile money and digital financial services (transactions, savings, credit and insurance, for example), in driving financial inclusion as a component of greater agricultural productivity and enhanced livelihoods for smallholder farmers and their families.

Research projects that incorporate the use of big data, elements of digitally-enabled precision agriculture, and/or GIS or remote sensing-based products are highly encouraged to apply. Innovative approaches using crowdsourced data or citizen science approaches will also be of interest. Applicants are encouraged to reach out to U.S.-based researchers associated with a Feed the Future Innovation Lab working in the country where the proposed PEER project will take place. Information on Feed The Future Innovations Labs, including the countries they partner with, can be found at the following web address: (https://feedthefuture.gov/lp/feed-future-innovation-labs).

Focus Area: Indonesia/ Multiple Fields

Eligible Country:

Indonesia

Additional Criteria for Applicants:

Please see Section V of the Solicitation for General Eligibility requirements.

Objectives:

PEER is seeking research projects that support the goals and objectives of USAID/Indonesia as outlined in the Mission's Country Development Cooperation Strategy (CDCS; http://www.usaid.gov/indonesia/cdcs). Principal investigators have the opportunity to apply for PEER funds if their research supports one of the following three priority areas for USAID/Indonesia:

- **Education**: USAID/ Indonesia is interested in supporting research into methodologies of STEM education at both secondary and university levels. Special interest in strengthening teaching methods and curricula in statistics, the scientific method, research methods, generation of knowledge, methods of inquiry, and evidence-based decision making. Education proposals that involve the application of the scientific method to non-research contexts and evidence-based decision making are also encouraged.
- **Biodiversity conservation**: USAID/Indonesia is interested in supporting policy-relevant research that seeks to better understand causes and consequences of the loss of biodiversity in both marine and terrestrial environments, including understanding the root causes of deforestation, species decline, overfishing, and wildlife trafficking in Indonesia. Biodiversity proposals that complement USAID's flagship forestry and marine projects, Lestari (**http://www.lestari-indonesia.org/id/**) and Sustainable Ecosystems Advanced Project (SEA), will be prioritized.
- **Wildlife trafficking policy:** USAID/Indonesia is interested in supporting research that could produce evidence to better inform wildlife trafficking policy. Examples include research which leads to: a better understanding of the viability of wild populations of the most trafficked species; technology development to detect and combat trafficking; ecosystem services linked to trafficked species; and the economics or sociology of wildlife trafficking.

Focus Area: Madagascar/ Biodiversity Friendly, Climate Resilient Human Development in Madagascar

Eligible Country:

Madagascar

Additional Criteria for Applicants:

Please see Section V of the Solicitation for General Eligibility requirements.

Objectives:

Madagascar is one of the highest conservation priorities in the world due to its high levels of biological diversity, much of which is endemic, and the high degree of threat due to years of political crisis and the economic and environmental degradation that followed. USAID works to provide communities and local organizations with the means to protect these invaluable resources from illegal exploitation and to use biodiversity-friendly and climate-resilient methods to achieve economic development.

In alignment with the goals of USAID/Madagascar, the PEER program is interested in supporting projects that provide a better understanding of how activities contributing to human wellbeing and improved livelihoods can be harmonized with long-term biodiversity conservation and climate resilience development in Madagascar. Proposed research projects should aim to address one or more of the following topic areas:

- Developing and/or improving land uses related to climate-smart agriculture and natural resource management (e.g. , fisheries, forestry) that also reduce threats to biodiversity
- Enhancing the collection of biophysical data (including climate information) to better measure and monitor changes in biodiversity resources and threats to biodiversity resources from different land/sea use practices and management approaches
- Optimizing climate change adaptation and biodiversity conservation co-benefits in the context of a development program
- Improving the economic valuation of ecosystems and ecosystem services and increasing opportunities for innovative financing for biodiversity conservation
- Adapting land/sea/natural resource tenure regimes that can reduce threats to biodiversity conservation.

Projects must have explicit biodiversity conservation objectives, with anticipated outcomes that positively impact biodiversity and natural resources management in Madagascar. USAID/Madagascar is particularly interested in supporting research projects that involve collaborations with a wide range of stakeholders, including private sector partners and civil society organizations, as well as projects that have the potential to inform government policy at the national and/or local level. PEER projects that include a USG-supported partner or co-partner based at a U.S. university are encouraged. Women researchers are strongly encouraged to apply.

Focus Area: South Africa/ Multiple Research Fields

Eligible Country:

South Africa

Additional Criteria for Applicants:

- Please see Section V of the Solicitation for General Eligibility requirements.
- USAID and the South Africa Department of Science and Technology (DST) strongly encourage research proposals that include a PI or co-PI from a Historically Disadvantaged Institution (HDI) in South Africa, or a proposal partnering a South African research institution with a co-PI from a research institution in the Southern African Development Community (SADC).
- Co-PIs from the SADC must also be from PEER-eligible countries, including Angola, Botswana, Madagascar, Malawi, Mozambique, Namibia, Tanzania, or Zambia.
- As with all PEER proposals, applications submitted under this focus area require partnership with a scientist supported by a participating USG-supported science agency.

Objectives:

USAID/Southern Africa and DST are pleased to announce they have partnered for the 2016 PEER call to support research proposals in the focus areas of Low Emissions Development (LED)/Green Growth and Water Security, Supply, and Sanitation. Additionally, USAID/Southern Africa is also interested in supporting research focusing on Countering Wildlife Crime (CWC).

- **Low Emissions Development (LED)/Green Growth:** projects will support innovative approaches to advancing low emissions development strategies in transport, waste, energy, energy efficiency and other sectors; support the development of smart cities and low emissions development at the municipal scale.
- **Water Security, Supply and Sanitation:** projects will expand access to sustainable water supply, sanitation and hygiene (WASH) services, with a focus on low-cost technologies that are locally managed, energy-neutral, use renewable energy, and generate recyclable or environmentally benign waste streams; and/or promote water security that supports access to an appropriate quantity and quality of water to ensure human security, sustainable ecosystem goods and services, and sustainable management of water-related risks.
- **Countering Wildlife Crime (CWC):** projects will strengthen biological management, law enforcement, legal systems and prosecution capacity with the ultimate aim of promoting wildlife conservation and combating wildlife poaching and trafficking to preserve the region's natural biodiversity.

All research proposals should support the goals of USAID/Southern Africa as outlined in the Southern Africa Country Development Cooperation Strategy, relate to the Mission's current environment portfolio, and support the goals of the South Africa National Development Plan and the National Water Resource Strategy focused specifically on WASH or LED/Green Growth.

Additional relevant documents include:

- Enhancing Capacity for Low Emissions Development (available through https://www.ec-leds.org/);

- South Africa`s Water Research, Development, and Innovation (RDI) Roadmap: 2015-2025 (available through www.wrc.co.za);
- USAID's Water and Development Strategy: 2013-2018 (available through www.usaid.gov); and
- The U.S. National Strategy for Combating Wildlife Trafficking (available through www.whitehouse.gov).

Focus Area: RDMA Priority Countries/ Rapid Assessment of Tuna Fish Stocks in the South China and Sulu-Sulawesi Seas

Eligible Countries:

- Burma
- Cambodia
- Indonesia
- Laos

- Malaysia*
- Philippines
- Thailand
- Vietnam

*Malaysian researchers are eligible to participate only as co-PIs, not PIs.

Additional Criteria for Applicants:

Please see Section V of the Solicitation for General Eligibility requirements.

Objectives:

USAID's Regional Development Mission for Asia (RDMA) and the U.S. Mission to ASEAN (USASEAN) have identified over-harvesting, including illegal, unreported, and unregulated (IUU) fishing, as a leading threat to marine biodiversity and sustainable fisheries in Southeast Asia. Overharvesting and IUU fishing are leading to declines in abundance, size, biodiversity, and distribution of economically important marine species such as tuna, grouper, snapper, mackerel, and coral reef fishes. These declining fisheries remain fundamental to the food security and livelihoods of Southeast Asian people. Understanding the state of marine resource availability is necessary for sustainably managing fisheries, thereby protect biodiversity and reverse the decline of local fisheries.

The [USAID Oceans and Fisheries Partnership](#) (USAID Oceans) is a regional program designed to protect marine biodiversity in the Asia-Pacific region by combating illegal, unregulated, and unreported (IUU) fishing and by enhancing sustainable fisheries management. To do this, USAID Oceans is first developing and implementing a fisheries catch documentation and traceability (CDT) system that will enable the reporting and tracking of seafood from point of catch to market entry. Use of this geo-located catch data in the updating of fisheries management plans will enable more robust assessments and predictions of fishing impact than are currently possible. Since the USAID Oceans CDT system will be piloted on tuna in both the South China Sea and Sulu-Sulawesi Sea, baseline data on tuna abundance in these areas are needed and are critical for understanding the current state of these particular fisheries resources.

Through PEER, USAID/RDMA will support research projects that generate strong evidence on tuna fish stocks of the South China Sea and/or the Sulu-Sulawesi Sea. Rapid and innovative approaches to fish stock assessment are encouraged, but must also be somehow tested or "ground-truthed." Applicants should propose robust analytical approaches and should, at a minimum, target the most critical fish stock information gap of abundance.

Regional collaborations among institutions in at least two of the eligible countries are strongly encouraged in order to build a stronger knowledge base and inform decision-making in the region. Proposals should therefore have plans to encourage the uptake of information produced through the PEER activity, particularly through other relevant regional and bilateral USAID activities, such as the Oceans and Fisheries Partnership, and/or existing regional institutions. This research is of high priority for ASEAN members and supports the goals of USAID and USASEAN.

Focus Area: RDMA Priority Countries/ Assessment of Fish Natural History in the Lower Mekong Basin

Eligible Countries:

- Burma
- Cambodia
- Indonesia
- Laos

- Malaysia*
- Philippines
- Thailand
- Vietnam

*Malaysian researchers are eligible to participate only as co-PIs, not PIs.

Additional Criteria for Applicants:

Please see Section V of the Solicitation for General Eligibility requirements.

Objectives:

The Mekong River has the world's highest fish diversity after the Amazon River. Leaving China, the river flows through the Lower Mekong Subregion, an area comprised of five Southeast Asian countries covering 1.94 million square kilometers with a combined population of approximately 238 million people. Annual fish production in the Lower Mekong Basin (LMB; Cambodia, Laos, Thailand, and Vietnam) accounts for approximately 4 million tons of biomass, or 20% of the world's inland fish production—the highest in the world. Long distance, transboundary migratory fish (so-called white fish) account for more than one-third of the LMB fish species captured and fish production by weight. Current plans for hydropower dams in the LMB will disrupt the Mekong's major fisheries and may result in degraded biodiversity, food security, and local economies.

USAID/RDMA has two programs to address the environmental impact of hydropower dams in the LMB: the [Climate Resilient Mekong (CRM) program](#) and [Smart Infrastructure for the Mekong (SIM)](#). CRM helps Lower Mekong countries study the potential effects of dam construction and identify ways to mitigate impacts on the Mekong River system. USAID's primary partner for this program is the Natural Heritage Institute (NHI). SIM provides Lower Mekong partner governments with technical assistance from U.S. government scientists and engineers to mitigate the negative social and environmental consequences of infrastructure projects such as hydropower dams. USAID's primary partners for this program are the U.S. Department of Interior, U.S. Department of Energy, and U.S. Army Corps of Engineers.

Through PEER, USAID/RDMA would like to support research proposals that will generate critical information on the behavior, function, ecology, migration, reproductive strategies, and genetics of economically important fish in the LMB. Proposed PEER projects should help provide data to assess the impact of hydropower dams (in combination with climate change) on capture fisheries in the Tonle Sap, the Mekong Delta, the 3S rivers (Sesan, Sre Pok, and Sekong rivers), or other parts of the LMB.

Regional collaborations among institutions in at least two of the eligible countries are strongly encouraged in order to build a stronger knowledge base and inform decision-making in the region. Proposals should therefore have plans to encourage the uptake of information produced through the PEER activity, particularly through other relevant regional and bilateral USAID activities, such as CRM and SIM.

Focus Area: Bangladesh/ Climate Change

Eligible Country:

Bangladesh

Additional Criteria for Applicants:

Please see Section V of the Solicitation for General Eligibility requirements.

Objectives:

Bangladesh is one of the countries most at risk to the effects of climate change. The majority of the country is less than 20 feet above sea level, and rising water levels will destroy more cultivated land in Bangladesh than any other country in the world. The country is also experiencing an increase in extreme weather events such as floods, droughts, and tropical storms, which further erode land resources, degrading food security and other basic services. USAID is working to improve Bangladesh's ability to respond to climate change and to mitigate the effects of climate change on the country's most vulnerable populations.

PEER is seeking to support applied environmental research in order to fill knowledge gaps in the understanding of environmental sustainability in Bangladesh. Proposed research projects must explicitly respond to, address, and inform opportunities for Bangladesh to increase the country's climate resiliency.

Research areas may include, but are not limited to:

- Management of natural resources with a focus on conserving or increasing biodiversity
- Research on ecosystem change in climate sensitive regions
- Establishment of meteorological or ecosystem baselines for climate analysis
- Vulnerable landscapes analysis using GIS, GeoCoding, and/or LIDAR
- Deforestation and tree cover analysis
- Riverine island (char) landscape management
- Water table fluctuations and waterlogging
- Improvement of the ability for agriculture to adapt to increased salinity or extreme weather
- Analysis of the effects of climate change on vulnerable and displaced peoples
- Human behavior change to improve community resilience to environmental changes

Proposals are additionally encouraged to address gender, transboundary, and/or geo-political analysis. Interdisciplinary research teams that are able to integrate multiple research areas or that can ultimately contribute to local, community, and/or national policy changes are highly encouraged to apply. Applicants are encouraged to read and address Bangladesh's development priorities as outlined in their [Country Development Cooperation Strategy](#).

Focus Area: Haiti/ Education

Eligible Country:

Haiti

Additional Criteria for Applicants:

Please see Section V of the Solicitation for General Eligibility requirements.

Objectives:

PEER is seeking to support research that contributes to several topics around education and educational practices in Haiti. USAID/Haiti would like data for decision making around the following topics:

Children and youth with disabilities

There is a need to expand research about youth with disabilities (including but not limited to visual, hearing, and cognitive disabilities) in Haiti. USAID/Haiti would like to use data to make decisions on the design of future educational activities to increase educational access to youth (4-18 years of age) with disabilities. Some particular research topics of interest include:

- A diagnostic on the predominant types and demographics of disabilities represented in the Haitian youth of public school age (preschool, fundamental and secondary), along with an overview of current practices to address special educational needs by the Haitian education system (both public and private efforts). This should include an overview of the representation, integration, and access of students with disabilities in both mainstream and specialized education.
- A survey of available best practices from around the developing world related to increasing access of children and youth with disabilities to quality education. This could include an overview of educational policies, resources, and services that support quality educational access in Haiti for children and youth with disabilities.

Language of instruction and effective learning

Learning in the country's mother tongue, Haitian Creole, was formally introduced to public schools in 1982 and has recently been promoted as the primary initial language of instruction, with eventual transition to French instruction at later levels. USAID/Haiti would like information and analyses, within the Haitian context, focused on current practices in language of instruction in the primary grades, throughout Haiti. Research projects should also include examinations of the effectiveness of using Haitian Creole vs. French as the primary language of instruction at different levels and approaches for effective uses and transitions of language of instruction. In addition, USAID/Haiti would like to understand how to transfer knowledge that children have obtained through Creole learning in order to help learn French, of which instruction begins in Grade 2. For example, how could Grade 2 French instructional materials be developed, taking into account prior knowledge of Creole?

Study on teachers' practices in educational settings

The Inter-American Development Bank's 2010 Haiti Country Strategy states that between 70 and 80 percent of teachers lack accreditation and one-quarter have an educational level less than the ninth grade. Evidence-based teaching practices are limited; many teachers have not mastered the

competencies they are expected to teach; classroom management and disciplinary techniques are anachronistic; and the curriculum is outdated and often overlooked in practice. USAID/Haiti would like data for decision making pertaining to:

- Understanding teachers' practices in classrooms, outside the classroom communication and coordination with parents, school directors, and local officials;
- Analysis of curricula and teaching approaches;
- Practices for managing non-traditional students in the classroom; and
- Diagnostic of the types of teaching degrees available as well as the degrees held by teachers currently teaching children and youth with disabilities.

Effectiveness of school feeding for improved academic outcomes

It has been shown in other country contexts that school feeding programs can have a positive outcome on academic outcomes. Ongoing efforts by the Government of Haiti, USAID, the U.S. Department of Agriculture, and others have been made for school feeding programs in Haiti. USAID/Haiti would like to have information on school feeding practices to in order to better understand nutrition and its effect on academic outcomes in the Haitian context. USAID/Haiti and PEER are particularly interested in the following:

- A survey of available best practices from around the developing world related to the effect of school feeding programs on academic outcomes; and
- An overview of school feeding programs ongoing in Haiti, with comparative analysis of inputs, processes, and where available, outcomes.

Research projects that can address one or more of the above priority areas are highly encouraged to apply.