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Partnerships for Enhanced Engagement in Research (PEER) 2019/2020 Solicitation

TABLE OF CONTENTS

- I. Program Synopsis**
 - Solicitation Process
- II. Role of the National Academies of Sciences, Engineering, and Medicine**
- III. U.S. Government-Supported Agency Partners**
- IV. Focus Areas**
 - 1. [Multiple Countries/ Any Development-Related Research](#)
 - 2. [Multiple Countries/ Advanced Digital Tools](#)
 - 3. [Multiple Countries/ Family Planning and Reproductive Health](#)
 - 4. [Multiple Countries/ Social, Economic, and Behavioral Sciences](#)
 - 5. [Afghanistan/ Urban WASH and Transboundary Water](#)
 - 6. [Bangladesh/ Clean Energy](#)
 - 7. [Tunisia/ Multiple Sectors](#)
 - 8. [Vietnam/ Bioremediation of Dioxin and Furans](#)
- V. General Eligibility Information**
 - i. PEER Applicants
 - ii. U.S. Government-Supported Partners
- VI. Types of Research Activities Supported by PEER**
- VII. Timeline**
- VIII. Budget Information**
- IX. Review Criteria and Pre-proposal Preparation and Submission Instructions**
 - i. Pre-proposal Review Criteria
 - ii. Policy on Fraudulent or Plagiarized Data and Documents in Award Submissions
 - iii. Pre-proposal Template
- X. Focus Area Appendices**

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 foreign nations meet the needs of their citizens by providing healthcare, education, and economic opportunity to reduce poverty and promote democratic, resilient societies, fostering their journey to self-reliance.

The U.S. Global Development Lab (The Lab) at USAID brings 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 researchers in developing countries with a USAID presence (http://sites.nationalacademies.org/PGA/PEER/PGA_181899) to partner with current grantees who receive USG funding and apply for funds to support research and capacity-building activities on topics of importance to USAID. PEER supports research awards from a wide range of academic disciplines including the natural, physical, social, behavioral, and economic sciences, as well as engineering.

Proposals in scientific focus areas should align with USAID's specific development objectives for the country(ies) in which research will be conducted (see www.usaid.gov). PEER awards are issued to institutions or organizations, not to individuals. Through PEER, The Lab leverages investments by other USG agencies and private sector companies in scientific research and training in order to enhance the development priorities of USAID. USG funded partners in PEER applications must have the capacity to contribute to the scientific merit and impact of PEER projects through expertise, skills, methodologies, laboratory access, and synergies with their ongoing USG funded projects. The program is supported by USAID and implemented by the U.S. National Academies of Sciences, Engineering, and Medicine (referred to as the National Academies). Any future solicitations for PEER beyond the current program cycle, if applicable, will be posted at <http://www.nationalacademies.org/peer>.

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 **February 10, 2020**. Details for pre-proposal submission are provided in Section IX. If invited to submit a full proposal, applicants will be notified by the National Academies around **March 20, 2020**.
- **Phase 2:** The deadline for submission of full proposals is **May 4, 2020**.

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

PEER is implemented by the National Academies, which will manage the proposal review process, disburse funding, and monitor awards.

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

III. Partnering Agencies

The PEER program aims to leverage USG's broader 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 researcher who currently receives USG funding to apply for a PEER award. Both the PEER applicant and the USG-supported researcher must benefit from one another's expertise and establish truly collaborative research that is not driven solely by the U.S. partner. Prior to submitting a pre-proposal, collaborative arrangements between the developing country researcher and an eligible USG-supported partner must already be established.

The following agencies have entered into an agreement with USAID and are participating in the PEER program. With some exceptions, researchers currently funded by these agencies are considered eligible partners. Additional eligibility requirements apply for each agency; please see Section V for additional information and for resources on identifying potential partners. Further information on 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 USG 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. 2019/2020 Scientific Focus Areas

The PEER Program is accepting research proposals in the following focus areas. 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/ Any Development-Related Research](#)
2. [Multiple Countries/ Advanced Digital Tools](#)
3. [Multiple Countries/ Family Planning and Reproductive Health](#)
4. [Multiple Countries/ Social, Economic, and Behavioral Sciences](#)
5. [Afghanistan/ Urban WASH and Transboundary Water](#)
6. [Bangladesh/ Clean Energy](#)
7. [Tunisia/ Multiple Sectors](#)
8. [Vietnam/ Bioremediation of Dioxin and Furans](#)

Regional collaborations among multiple countries are encouraged, provided that they address research that is within the scope of one of the focus areas and the primary PI is based in an eligible country for the focus area. Co-PIs may be involved in such regional collaborative projects, provided that the co-PIs are based in a country eligible for PEER (please see the country list for the [Any Development-Related Research Call](#) for the most comprehensive list of eligible countries or check with program staff at peer@nas.edu to confirm eligibility).

Applications that explicitly connect their proposed research in the focus areas to the development goals of the country's USAID Mission will generally be more competitive <http://www.usaid.gov/>. 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 the PEER program in general. The sector- and country-specific focus areas have additional eligibility requirements and applicants are encouraged to review eligibility criteria under specific focus areas of interest. Further information can also be found in the [Frequently Asked Questions \(FAQs\)](#).

PEER Applicants

Eligible applicants must be based at, or have an affiliation with, an institution of higher education (university) in a PEER-eligible country. For certain focus areas, applicants may also be based at a non-profit organization (NGO) or government-managed research laboratory, center, or institute. Please carefully review the individual focus area information in the appendices below to verify institutional eligibility requirements. We encourage applicants based at government ministries to consult with PEER program staff at peer@nas.edu prior to submitting their pre-proposal.

PEER applicants must hold a research or teaching position 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. Women and social scientists are strongly encouraged to apply.

Researchers from non-eligible countries and employees of for-profit firms in PEER-eligible countries may participate in projects as partners using their own resources but are not permitted to serve as PIs, as PEER awards will not be issued to non-eligible countries or organizations. PEER awards are issued to institutions or organizations, not to individuals. Institutions selected to receive an award will be required to answer basic questions about their financial and administrative systems to determine whether they are able and willing to comply with USAID policies for receipt and proper management of funds. In addition, the names of recipient institutions and key project staff will be vetted against the [System for Award Management \(SAM.gov\)](#) debarment list, the [U.S. Department of Treasury List of Specially Designated Nationals and Blocked Persons](#), and the [United Nations Security Council Consolidated List](#) to confirm they are not prohibited from receiving or using U.S. Government funds.

PIs of currently active PEER awards are not eligible to apply to serve as PIs or co-PIs in future this application cycle unless their currently active project has been completed successfully prior to **October 1, 2020**.

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 on previous PEER work to address new research questions.

PEER proposal are not accepted from U.S. organizations.

U.S. Government-Supported Partners

PEER applicants are required to partner with a USG-supported researcher who currently receives funding from or is employed by 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-funded partner is to provide expertise and skills to the PEER project that are complementary or provide access to specific methodologies or instrumentation otherwise unavailable to the PEER applicant.

Pre-proposal applications require a brief letter of support from the USG-funded partner, and proposals should outline how participation in the PEER project benefits both the foreign country and the U.S. partner.

Eligible USG-supported partners are intramural researchers from one of the partnering agencies listed above or researchers who currently serve as a principal investigator or co-principal investigator of an active research award from one of those agencies. Active awards may include grants, cooperative agreements, or contracts. **In order to be eligible, the USG-supported partner's award or agency employment status must be active at the time of the pre-proposal submission deadline, February 10, 2020.**

For more information on USG co-PIs see the Partner Eligibility section of the [Frequently Asked Questions](#), as well as the section on "[Find a USG-Supported Partner](#)" on the PEER website.

Although PEER funds may not be used to cover salary for the USG-supported partner and members of his or her project team (colleagues, students, technicians, etc.), applicants are allowed and encouraged to request limited support for travel expenses for the partner and team members. This requested

support cannot exceed 10% of the total budget for the PEER project. These funds generally will be managed by the PEER PI's institution and not awarded directly to the U.S. institution. For anticipated costs incurred by the USG-supported partner that are in excess of what the PEER budget could cover, partners are encouraged to seek additional supplemental funds from their own funding agencies outside of the PEER program.

VI. Types of Research Activities Supported by PEER

PEER supports research awards from a wide range of academic disciplines including the natural, physical, social, behavioral, and economic sciences, as well as engineering. Applicants should clearly articulate how their proposed research project will impact their local, regional, or national communities.

PEER supports primary and secondary data analysis, and research questions may be explored utilizing quantitative, qualitative, or mixed methods research design. Applications proposing secondary data analyses may use data from readily available datasets resulting in publication-quality research papers and dissemination activities that can inform and influence policies and programs.

Projects may cover diverse types of research activities, including but not limited to the following:

- Design and conduct of baseline surveys, modelling and simulation, implementation/operational research
- Primary data collection by researchers and undergraduate and graduate students working under the supervision of a principal investigator
- Primary and secondary data analysis, and research questions utilizing quantitative, qualitative, or mixed methods research design.
- Development of new technologies or instruments
- Proof-of concept studies and formative investigations
- Social science and behavior change research
- Systems research and policy studies
- Primary research or data collection for understanding underlying social, political, and economic context of development challenges
- Secondary data analysis of publicly available or other readily available datasets
- Working visits to share and analyze data and write papers with USG-supported partners
- Dissemination events and stakeholder meetings to translate research results to policy-makers and the community
- Collaboration with local NGOs to train communities, perform outreach, or engage residents around science research education and science literacy.
- Identification of social barriers to the uptake of interventions or policy changes, etc. discovered by societal outreach and education

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; and equipment, materials, and supplies for developing country institutions and research networks.

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 competitive for PEER funding.*

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 as determined by the technical reviewers and USAID

In designing their studies and analyses, applicants must thoughtfully consider inclusion of and impacts on marginalized and vulnerable populations, such as women, youth, certain ethnic groups, gender and sexual minorities (e.g., LGBTI persons), people with disabilities, indigenous communities, low-income or low-status groups, the elderly, and other socially relevant categories. Project proposals should take into account questions like the following: Are these groups of people affected differently by the research question or by how the research is being conducted? Are there any potential harmful and/or unintended consequences or risks of this research or its subsequent findings and recommendations on participants or impacted communities? Negative consequences can include, for example, increased risk of gender-based violence or increased unpaid work or time poverty for women and girls. Are there any potential benefits of participating in the research that would favor one group over another?

Please review the [Frequently Asked Questions](#) section of the program website for additional details or e-mail peer@nas.edu with other eligibility questions.

VII. Timeline

November 11, 2019	PEER solicitation posted on National Academies website
February 10, 2020	Pre-proposals due to National Academies
March 20, 2020	Selected applicants are invited by National Academies to submit a full proposal, all others are notified of declination
May 4, 2020	Full proposals due to National Academies
October 2020	PEER awardees announced

VIII. Budget Information

Most projects are anticipated to run for one or two years, unless a duration of up to three years is specified in a particular focus area call. If circumstances require and the project is otherwise in good standing, projects may request and receive a no-cost extension at the discretion of their PEER grant managers.

Awards involving support for only one institution (single institution awards) are anticipated to range from \$40,000 to \$80,000 (USD) per year. Awards involving support for more than one institution (multiple institution awards), with one of them serving as the lead, may receive up to \$100,000 (USD) per year. To qualify for multi-institutional award status, PEER applicants must plan to provide part of the PEER funds to another PEER-eligible institution as part of their proposed project.

Only a total estimated budget figure is required at the pre-proposal stage. 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. Detailed budgets and further justification will be requested from applicants invited to submit a full proposal.

For questions regarding budget estimates for pre-proposals, applicants may contact PEER staff (peer@nas.edu).

The first year's funds will be released to the recipient institution after the award agreement is signed, and funds for subsequent years will be released dependent on the principal investigator's compliance with financial and technical reporting requirements.

IX. Review Criteria and Pre-Proposal Preparation and Submission Instructions

Pre-proposal applications are required for the PEER program. Pre-proposals will be reviewed to select projects that are suitable for full applications and meet the eligibility criteria and focus area requirements articulated in Sections V and VI. The deadline for submission of pre-proposals is **February 10, 2020**.

When drafting a pre-proposal, applicants should convey the development impact of their proposed research for the focus area to which they are applying and how the research connects to USAID country-specific development goals. 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 relationship with the USG-funded partner and how it will contribute to successful completion of the project.

Please note that applications that explicitly connect their proposed research in the focus areas to the development goals of the country's USAID Mission will generally be more competitive <http://www.usaid.gov/>. 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>.

Pre-Proposal Review Criteria

The pre-proposal review process is managed by the National Academies. Pre-proposals will be evaluated by USAID and National Academies staff 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, and degree of alignment with his or her expertise with the proposed project goals;
- Alignment with research priorities outlined in corresponding "Focus Area" section and USAID country-specific development objectives;
- Development impact of proposed research;
- Degree to which the project brings a new or underrepresented voice to the field, pushes the boundaries of our current understanding of a development challenge, or provides a novel approach to such a challenge;
- (If a prior PEER awardee) Demonstration by the applicant of 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 – not invited to submit full proposal

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 proposals. 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 and how the partner will utilize travel funds requested in the estimated PEER budget
 - 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 two years, except for those focus areas allowing for projects of up to three years. Typical projects fall within the following ranges:
- Single institution: U.S. \$40,000 - \$80,000/year (maximum for Bangladesh/Clean Energy focus area is \$70,000/year)
 - Multiple institutions: U.S. \$80,000 - \$100,000/year (maximum for Bangladesh/Clean Energy focus area is \$70,000/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 and how the PEER partnership will contribute to the partner's USG-supported research. 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/ Any Development-Related Research

Eligible Countries:

ASIA	SUB-SAHARAN AFRICA	LATIN AMERICA AND CARIBBEAN
Afghanistan	Angola	Brazil
Bangladesh	Benin	Colombia
India	Botswana	Dominican Republic
Indonesia	Burkina Faso	Haiti
Kazakhstan	Ethiopia	Jamaica
Kyrgyz Republic	Ghana	Mexico
Maldives	Kenya	Peru
Nepal	Liberia	
Pakistan	Madagascar	MIDDLE EAST
Philippines	Malawi	
Sri Lanka	Mali	Egypt
Tajikistan	Mozambique	Iraq
Timor-Leste	Namibia	Lebanon
Turkmenistan	Nigeria	Morocco
Uzbekistan	Rwanda	Tunisia
Vietnam	Senegal	
	Sierra Leone	EUROPE AND EURASIA
	South Africa	
	Tanzania	Albania
	Uganda	Armenia
	Zambia	Georgia
		Kosovo
		Moldova

Additional Criteria for Applicants:

Please see Section V of the Solicitation for General Eligibility requirements. For this focus area, applicants must be based at or have an affiliation with an institution of higher education (university) in one of the PEER-eligible countries listed above.

Objectives:

USAID is the U.S. government's lead development agency working to end extreme global poverty and enable resilient democratic societies. Under the PEER Multiple Countries/Any Development-Related Sector call, the PEER program will award a limited number of highly competitive, novel research projects from PIs in PEER-eligible countries that are of direct relevance to [USAID's development objectives](#). These development objectives are articulated in USAID Regional and Country Development Cooperation Strategies (RDCS and CDCS). Applicants should closely read the appropriate RDCS and/or CDCS and USAID Mission website for the country or countries where the PEER project will take place before

submitting a proposal. Additional information on Development Cooperation Strategies can be found at: <https://www.usaid.gov/results-and-data/planning/country-strategies-cdcs>. If there is no CDCS/RCDS for a specific country, please look for country priority areas on the USAID webpage for that country.

Research proposals submitted under this call can address a variety of topics, including: biodiversity, agriculture, environment, climate change, clean energy, disaster mitigation, food security, water/sanitation, urbanization, democracy and governance, and education. Proposals on selected health-related topics may be appropriate for submission under the focus area Multiple Countries/Family Planning and Reproductive Health.

Consistent with the goals of PEER, applicants should outline how their research findings will lead to development-related policy or programmatic change. All projects must also contribute to USAID higher education objectives by strengthening engagement with junior researchers and undergraduate/graduate students. Proposals that include multi-disciplinary research teams, multi-country collaboration, and/or engagement with policy actors and other development stakeholders are desired but not required. In addition, because USAID seeks to scale innovative development solutions to end extreme poverty through the [Global Development Lab](#), projects that develop or test new solutions, study barriers to scaling innovation, or research how a proven intervention can be adapted to a new setting are of particular interest.

For further information on the Global Development Lab, please visit: <http://www.usaid.gov/GlobalDevLab>.

Duration of Project:

Projects should be designed to be implemented in one to two years with budgets of \$40,000 to \$80,000 (USD) per year for one institution (single institution award) and \$100,000 (USD) per year for awards involving support for more than one institution (multiple institution awards). Proposals received for projects greater than two years in length will not be considered for funding. Women are strongly encouraged to apply.

Focus Area: Multiple Countries/ Advanced Digital Tools

Eligible Countries:

SUB-SAHARAN AFRICA

Angola	Mozambique
Benin	Namibia
Botswana	Nigeria
Burkina Faso	Rwanda
Ethiopia	Senegal
Ghana	Sierra Leone
Kenya	South Africa
Liberia	Tanzania
Madagascar	Uganda
Malawi	Zambia
Mali	

Additional Criteria for Applicants:

Please see Section V of the Solicitation for General Eligibility requirements. For this focus area, applicants must be based at or have an affiliation with an institution of higher education (university) in one of the PEER-eligible countries listed above.

Objectives:

The U.S. Global Development Lab (The Lab) at USAID brings 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.

USAID's approach to development is one committed to building local capacity on the Journey to Self Reliance using 21st Century approaches and technologies. This includes improving digital tools and systems, as well as the enabling environment that allows research and innovation to function robustly, inclusively, and to reach all of their intended recipients. Artificial Intelligence (AI) is already playing a critical role in how cities, regions, and countries collect large sets of data, analyze context-specific needs, and distribute targeted information or resources across a variety of areas and actors. The power of these approaches has the potential to transform how we monitor land use and ecosystems, provide critical societal services, distribute natural resources, work, communicate, and raise people out of poverty.

USAID has seen an emerging need to improve and tailor AI models and training data sets for developing world partners, contexts, and actors; and expand efforts to be inclusive of marginalized or minority populations. For example, in the field of Machine Vision (MV) training images are largely taken from developed world populations and geographies, resulting in MV models that may underperform or fail in developing country contexts. Similarly, the field of Natural Language Processing (NLP) currently relies

heavily on the English written language, hindering advances in nearly all of the non-written, spoken languages throughout the developing world, and further excluding individuals that speak these languages. These examples of bias and lack of fair representation are increasingly apparent as AI applications become widespread, and underscore the importance of inclusivity and ethical concerns that will be at the core of developing AI systems and approaches as they move forward.

In order to improve solutions and fill gaps in AI approaches in the developing world, PEER will support in-country researchers to design and create research projects under the Advanced Digital Tools call. Research proposals can address needs across a variety of sectors, including: biodiversity, health, agriculture, environment, climate variability, clean energy, disaster mitigation and response, food security, water/sanitation, urbanization, democracy and governance, and education, and must focus on developing, improving, or utilizing AI approaches specifically in MV or NLP to solve development challenges. Proposals on selected health-related topics may also be appropriate for submission under the focus area **Multiple Countries/Family Planning and Reproductive Health** and all proposals are also appropriate for submission under the **PEER Multiple Countries/Any Development-Related Research call**.

Through this RFA, USAID is looking to support locally driven research projects using advanced digital tools. This is a space that is opening and expanding quickly behind the significant investments and efforts of private sector technology companies, big and small. These investments have established a base of infrastructure and expertise on which we hope to build. Therefore, applicants will be required to partner with appropriate local, private sector companies in order to guarantee that the resources and expertise already developed in the advanced digital tools space is leveraged to bring lasting impact. Applicants that are proposing research that builds on advancements already made by themselves or partners must clearly show how the new research will address a development-relevant need not currently being met or funded through ongoing research.

Activities under this award could include, but are not limited to:

- Satellite-based approaches to land use or resource management using automation and machine learning
- Real-time mobile phone image analysis for agriculture- or health-related diagnostics
- MV or NLP approaches that improve the management, health, and education of migrants and refugees in displaced persons camps
- MV or NLP Curriculum development to increase youth education and workforce development
- NLP approaches in local spoken languages to improve applications for populations with low literacy
- NLP approaches in local written languages to enable mining of information from open data resources leading to new learning
- Investigating a new application for the use of MV or NLP in addressing development challenges

Proposed budgets should emphasize research generation and utilization over purely infrastructure-related needs or activities.

Essential to any applications is a detailed explanation of the ethical implications related to the proposed work. Applicants must thoughtfully consider inclusion of marginalized and vulnerable populations in their proposals and provide an analysis of the implications of the study on marginalized and vulnerable groups, such as women, youth, certain ethnic groups, gender and sexual minorities (e.g., LGBTI persons),

people with disabilities, indigenous communities, low-income or low-status groups, the elderly, and other socially relevant categories. Project proposals should take into account questions like: Are these groups of people affected differently by the research question, or how the research is being conducted? Are there any potential harmful and/or unintended consequences or risks of this research, or the subsequent findings and recommendations on participants or impacted communities? Are there any potential benefits of participating in the research that would favor one group over another? If these populations are NOT the target of the research, researchers must articulate why, and still address any and all potential unintended consequences on these populations as part of the application. Additionally, applicants should describe how their project aligns with USAID's work in digital principles.

*For further information on USAID's work in digital principles please visit:

<https://digitalprinciples.org/principles/>

**For more information on USAID's work on artificial intelligence and machine learning visit:

<https://www.rtachesn.org/blog/digital-tools-and-the-future-of-international-development/>.

***To view USAID's Digital Strategy Public Draft please visit:

https://www.usaid.gov/sites/default/files/documents/15396/USAID_Digital_Strategy_Draft.pdf

Duration of Project:

Projects should be designed to be implemented in one to two years with budgets of \$40,000 to \$80,000 (USD) per year for one institution (single institution award) and \$100,000 (USD) per year for awards involving support for more than one institution (multiple institution awards). Proposals received for projects greater than two years in length will not be considered for funding. Women are strongly encouraged to apply.

Focus Area: Multiple Countries/ Family Planning and Reproductive Health

Eligible Countries:

ASIA	SUB-SAHARAN AFRICA	LATIN AMERICA AND CARIBBEAN
Afghanistan	Benin	Haiti
Bangladesh	Ethiopia	
India	Ghana	
Nepal	Kenya	
Pakistan	Liberia	
Philippines	Madagascar	
	Malawi	
	Mali	
	Mozambique	
	Nigeria	
	Rwanda	
	Senegal	
	Tanzania	
	Uganda	
	Zambia	

Additional Criteria for Applicants:

Please see Section V of the Solicitation for General Eligibility requirements. For this focus area, applicants must be based at or have an affiliation with an institution of higher education (university), non-profit organization (NGO), or government-managed research laboratory, center, or institute in one of the PEER-eligible countries listed above.

PEER does not support clinical trials research. All projects that involve interaction with patients, human subjects' data, or other personally identifiable information will require a protocol review coordinated by the National Academies. They will also be required to have and maintain a Federal Wide Assurance (FWA), which is a number issued to institutions by the Office of Human Research Protections (OHRP) at the U.S. Department of Health & Human Services (DHHS), whereby an institution commits to DHHS that it will comply with certain standards for research involving human subjects. Further details are available through the following [link](#). In addition, such projects must also have Institutional Review Board (IRB) approval of their proposed activities to confirm that they comply with the legal and ethical standards for human subjects' research in the country where the project is being carried out. Because the process of obtaining the FWA and IRB approval can be lengthy, applicants must already have these approvals at the time they submit their pre-proposals.

U.S. Partner Eligibility:

In addition to the standard eligibility requirements for U.S. Government-Supported Partners described in Section V of the Solicitation for General Eligibility requirements, applicants under this focus area are also encouraged to partner with U.S. university recipients (including prime awardees and sub-awardees) of USAID family planning and reproductive health funding. More information about current USAID funded programs and partners can be found in the latest [User's Guide to USAID/Washington Health Programs](#).

Objectives:

As the world's largest family planning bilateral donor, USAID is committed to supporting countries to enhance their capacity and commitment to ensuring healthy lives and promoting the well-being of their populations at all ages (Sustainable Development Goal 3). More specifically, USAID supports countries to make progress towards the goal of ensuring universal access to reproductive health services, including voluntary family planning services, and the integration of reproductive health in national strategies and programs. This is achieved through supporting programs that enable women of reproductive age (15-49 years) to have their need for family planning satisfied with modern family planning methods and allow adolescents to delay onset of sexual activity and child bearing through the use of age and culturally appropriate information and services. USAID has been a core partner of Family Planning 2020 and has worked with the global community on the goal of reaching an additional 120 million women and girls with family planning information, commodities and services by 2020.

Under the PEER Family Planning and Reproductive Health focus area, the PEER program will award funds to a limited number of highly competitive, novel research projects from PIs in PEER-eligible countries (see above) that help increase the demand for, inform decision-making related to, and improve access to high-quality voluntary family planning information, services, and reproductive health care services. More specifically, PEER is seeking to support research that strengthens the evidence base in voluntary family planning and reproductive health that can be used to inform policy-makers, program administrators, and communities. Where applicable, research should include and address the roles of parents and other family members, men and boys, communities, and faith-based institutions in access to and use of family planning services.

PIs from a variety of academic disciplines are encouraged to apply. Applicants should propose the use of appropriate and rigorous methods to respond to a research question of interest to stakeholders in their country or region. PEER will support primary and secondary data analysis and research questions may be explored utilizing quantitative, qualitative, or mixed methods research design. Applications proposing secondary data analyses may use data from Demographic and Health Surveys (DHS), Service Provision Assessments (SPA), or other readily available datasets resulting in publication-quality research papers that can inform and influence policies and programs.

Family Planning and Reproductive Health research areas may include, but are not limited to:

- Voluntary uptake and scale up of proven family planning interventions
- Activities that foster expansion and institutionalization of family planning interventions and services
- Methods or innovations that increase access to and use of voluntary family planning services and integrate those services with other health and development activities
- Interventions that promote integration of family planning with maternal and child health services, HIV/AIDS and STI programs and into routine health care in rural and urban poor communities
- Innovations in engaging the private sector in the provision of family planning
- Innovative financing mechanisms to expand access and increase affordability
- Understanding and addressing social norms that impact uptake and access to and use of family planning services
- Identifying and addressing barriers that underlie non-use of family planning services and methods among women

- Better understanding of the conditions that contribute to greater efficiencies for quality family planning programs
- Tools and approaches that advance understanding of social norms and inform appropriate design and implementation of cost-effective interventions that support self-efficacy and agency for women to access and use contraception

More information about USAID's Family Planning and Reproductive Health programming can be found at: <https://www.usaid.gov/global-health/health-areas/family-planning>.

Consistent with the goals of PEER, applicants should outline how their research findings will lead to development-related policy or programmatic change. All projects must also contribute to USAID higher education objectives by strengthening engagement with junior researchers and undergraduate/graduate students. Proposals that include multidisciplinary research teams, multi-country collaboration, and/or engagement with policy actors and other development stakeholders such as NGOs are desired, but not required. Once selected, awardees will need to submit proof of institutional or country ethics review and approval or exemption.

Country specific USAID health objectives are articulated in USAID Regional and Country Development Cooperation Strategies (RCDS and CDCS). Applicants should closely read the appropriate RCDS and/or CDCS, and USAID Mission website in the country or countries where the PEER project will take place before submitting a proposal. Proposed research projects must also adhere to the requirements of the USAID Protecting Life in Global Health Assistance policy.

Duration of Project:

Projects should be designed to be implemented in one to three years with budgets of \$40,000 to \$80,000 (USD) per year for one institution (single institution award) and \$100,000 (USD) per year for awards involving support for more than one institution (multiple institution awards). Proposals received for projects greater than three years in length will not be considered for funding. Women are strongly encouraged to apply.

Focus Area: Multiple Countries/ Social, Economic, and Behavioral Sciences

Eligible Countries:

ASIA	SUB-SAHARAN AFRICA	LATIN AMERICA AND CARIBBEAN
Afghanistan	Angola	Brazil
Bangladesh	Benin	Colombia
India	Botswana	Dominican Republic
Indonesia	Burkina Faso	Haiti
Kazakhstan	Ethiopia	Jamaica
Kyrgyz Republic	Ghana	Mexico
Maldives	Kenya	Peru
Nepal	Liberia	
Pakistan	Madagascar	MIDDLE EAST
Philippines	Malawi	
Sri Lanka	Mali	Egypt
Tajikistan	Mozambique	Iraq
Timor-Leste	Namibia	Lebanon
Turkmenistan	Nigeria	Morocco
Uzbekistan	Rwanda	Tunisia
Vietnam	Senegal	
	Sierra Leone	EUROPE AND EURASIA
	South Africa	
	Tanzania	Albania
	Uganda	Armenia
	Zambia	Georgia
		Kosovo
		Moldova

Additional Criteria for Applicants:

Please see Section V of the Solicitation for General Eligibility requirements. For this focus area, applicants must be based at or have an affiliation with an institution of higher education (university) in one of the PEER-eligible countries listed above.

Objectives:

USAID leads the U.S. Government's international development and disaster assistance through partnerships and investments that save lives, reduce poverty, strengthen democratic governance, and help people emerge from humanitarian crises and progress beyond assistance. USAID's objective is to support country partners to become self-reliant and capable of leading their own development journeys.

To address global development challenges in the most disadvantaged regions and amongst the most marginalized populations in the world, thorough attention needs to be paid to understanding the social,

cultural, economic, political, technological, and/or ecological factors that may influence development outcomes. Similarly, it is important to consider the interplay between these different factors, at the local, national, regional, and global levels, as well as the various stakeholders involved.

The social, economic, and behavioral sciences (SEBS) provide insights into the communities that international development efforts aim to support, offering an array of theoretical perspectives, methodologic approaches, and analytical tools. SEBS researchers use these tools and approaches to explore the effects of social, economic, behavioral, and other relevant factors on different development outcomes, and offer insights on how to address them in the given context. The development community has a need to improve the availability of high-quality, timely, and reliable data and analyses, and evidence from SEBS researchers looking at issues from poverty eradication to food and nutrition security, to addressing climate variability and improving water and sanitation systems, to understanding the impact of the private sector engagement on development goals.

SEBS researchers gather and analyze data that shed light on the challenges, experiences, opportunities, and choices that humans face, and enhance our understanding of people's everyday practice. By fostering long-term dialogue with aid-recipient communities, researchers, aid recipients, and other stakeholders can collaboratively develop nuanced and localized solutions to global challenges. Such solutions are more likely to be adopted by community members themselves because they resonate with their beliefs, values, and aspirations. Bringing SEBS research evidence to address complex development objectives increases the likelihood that community members will feel engaged and committed to taking part in addressing the challenges. When done well, SEBS research can contribute to a community's self-reliance.

For the current cycle of PEER, the program welcomes applicants to submit pre-proposals that deepen our understanding of a broad range of social, cultural, economic, and behavioral factors, and the interactions between and among them, which strongly impact development outcomes. This understanding can enhance our ability to achieve country and/or regional development goals. PEER encourages the use of quantitative, qualitative, or mixed-methods research. In all applications, PEER will evaluate the quality of the proposed research and its potential to shed light on topics of importance to USAID. Research findings must contribute to policy or programmatic changes that impact local, regional, and national level populations' and governments' abilities to address these challenges.

For illustrative purposes, possible research areas may include, but are not limited to:

- Disparities that underlie food or water insecurity, and drive inadequate access to resources or services
- Structural barriers that keep communities and individuals from realizing their own potential, free from violence and fear
- Social, political, and economic factors that contribute to or detract from communities' ability to weather environmental events
- Increased understanding of the conditions that contribute to greater efficiencies for quality reproductive health programs
- The role of communications, policy, or public institutions in managing disaster risk
- The impacts of inequality on individual and communal health and wellbeing
- The socioeconomic effects of a forest restoration and conservation program
- The factors influencing the education and employment outcomes of young adults

- Pathways for aid-recipient communities to help define development objectives and solutions, and shape Theory of Change models
- Development and testing of new interventions in fields such as health, agriculture, and education, that are behaviorally and socially based or that include behavioral and social components
- Secondary analysis of existing quantitative data relevant to a global health related development problem with findings elucidated by conducting qualitative research for a more in-depth understanding of factors contributing to the problem and possible ways of addressing them
- Exploring ways factors that could either constrain or facilitate behavior change to better support maternal and child nutrition

PEER seeks to support applicants who draw on SEBS to provide contextualized analysis and insights addressing relevant development challenges, particularly those prioritized in USAID's CDCS or RDCS.

Applicants must thoughtfully consider inclusion of marginalized and vulnerable populations in their proposals and provide an analysis of the implications of the study on marginalized and vulnerable groups such as: women, youth, certain ethnic groups, gender and sexual minorities (e.g. LGBTI persons), people with disabilities, indigenous communities, low-income or low-status groups, the elderly, and other socially relevant categories. Project proposals should take into account questions like: Are these groups of people affected differently by the research question, or how the research is being conducted? Are there any potential harmful and/or unintended consequences or risks of this research, or the subsequent findings and recommendations on participants or impacted communities? Are there any potential benefits of participating in the research that would favor one group over another? The degree to which these issues are taken into account in the proposed project will be strongly considered in the review and selection process.

Consistent with the goals of PEER, applicants should outline how their research findings will lead to development-related policy or programmatic change. All projects must also contribute to USAID higher education objectives by strengthening engagement with junior researchers and undergraduate/graduate students. Proposals that include multidisciplinary research teams, multi-country collaboration, and/or engagement with policy actors and other development stakeholders such as NGOs are desired, but not required. Once selected, awardees will need to submit proof of institutional or country ethics review and approval or exemption.

Country specific USAID health objectives are articulated in [USAID Regional and Country Development Cooperation Strategies \(RCDS and CDCS\)](#). Applicants should closely read the appropriate RDCS and/or CDCS, and USAID Mission website in the country or countries where the PEER project will take place before submitting a proposal. Proposed research projects must also adhere to the requirements of the USAID [Protecting Life in Global Health Assistance](#) policy.

Duration of Project:

Projects should be designed to be implemented in one to two years with budgets of \$40,000 to \$80,000 (USD) per year for one institution (single institution award) and \$100,000 (USD) per year for awards involving support for more than one institution (multiple institution awards). Proposals received for projects greater than two years in length will not be considered for funding. Women are strongly encouraged to apply.

Focus Area: Afghanistan/ Urban WASH and Transboundary Water

Eligible Country: Afghanistan

Additional Criteria for Applicants:

Please see Section V of the Solicitation for General Eligibility requirements. For this focus area, applicants must be based at or have an affiliation with an institution of higher education (university).

All projects that interact with human subjects will be required to go through a protocol review coordinated by the National Academies, and obtain and maintain a Federal Wide Assurance of their institution's Internal Review Board. This process typically takes three months from the announcement of the PEER award. The time needed to obtain IRB compliance and successfully implement the PEER Project should be calculated in the budget and timeline of activities.

Objectives:

Water is critical to peace, reconciliation, and stability in Afghanistan, one of the most water-stressed countries in the world.¹ In a 2018 national survey of the Afghan people the Asia Foundation found that access to drinking water is the most commonly cited local problem.² Access to water and sanitation will continue to be a high priority across the region for years to come. Improving access to water, sanitation, and hygiene can be a stabilizing force in Afghanistan by creating a foundation for health and prosperity. Research and innovation will help the Afghan government achieve its pledges made in the national Citizen's Charter that includes universal access to water and sanitation. USAID works to improve access to urban and rural water and sanitation through several mechanisms and agreements with international and local partners in the Afghan government, NGOs, the private sector, and with academia. In alignment with the strategic goals of USAID/Afghanistan and the USAID Water and Development Implementation Plan (WDIP), the PEER program in Afghanistan shall align with the following guiding objectives:

- 1) Support research projects that reduce Afghanistan's vulnerability to water-related risks and stresses (WDIP IR 4.3), and;
- 2) Help achieve sustainable availability, quality, and environmental resilience of drinking water supply sources (WDIP Program Objective 5).

Proposed research projects should aim to achieve the above guiding objectives through one of the following topic areas:

Topic Area 1: Potable Water Supply (Increased Access to Safe Drinking Water)

- Enhancing understanding of, and developing solutions to ground-water management options and regulations, or strengthening methods to monitor and optimize extraction rates in urban areas such as Kabul. Evaluate the effectiveness of the Asian Development Bank Kabul Managed Aquifer Recharge (KMAR) program in increasing availability of water to Kabul's population.

¹ World Resources Institute. <https://www.wri.org/blog/2015/08/ranking-world-s-most-water-stressed-countries-2040>, Accessed August 21, 2019.

² The Asia Foundation, A Survey of the Afghan People, 2018, <https://asiafoundation.org/where-we-work/afghanistan/survey/data/>

- Develop a robust evidence-based analysis of the factors that determine access, affordability, sustainability, and quality of urban water, and proposing or improving solutions related to mitigating these factors, including through national and local utilities and service providers.
- What incentive structures exist to motivate the performance of utilities and to expand access to unserved or underserved areas? What are the costs and associated benefits of different approaches to increase revenue collection by utilities? What factors and models improve routine water quality monitoring and water safety in resource-poor environments?

Topic Area 2: Water Resources Management (Improved management of water resources)

- Investigate potential transboundary water sharing arrangements between Afghanistan and neighboring countries to find optimal solutions for Afghan policy makers, with consideration for future precipitation scenarios and climatic conditions that may reduce or alter the availability of water resources.
- Enhancing the collection of biophysical data, including climate information, to better understand, measure, and monitor changes in water resources from different land use practices and management approaches, including establishing systems for long-term monitoring of transboundary rivers.

Proposed projects must have an explicit focus on water resources, with proposed recommendations and anticipated outcomes that positively impact natural resources management and availability of safe WASH. USAID/Afghanistan 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. Research projects from all districts, provinces, and regions in Afghanistan will be considered, but applicants must demonstrate the capacity to safely conduct research, to include data collection, in remote areas or areas under increased security threat if fieldwork is required.

Duration of Project:

Projects should be designed to be implemented in one to two years with budgets of \$40,000 to \$80,000 (USD) per year for one institution (single institution award) and \$100,000 (USD) per year for awards involving support for more than one institution (multiple institution awards). Proposals received for projects greater than three years in length will not be considered for funding. Women are strongly encouraged to apply.

Focus Area: Bangladesh/ Clean Energy

Eligible Country: Bangladesh

Additional Criteria for Applicants:

Please see Section V of the Solicitation for General Eligibility requirements. For this focus area, applicants must be based at or have an affiliation with an institution of higher education (university), non-profit organization (NGO), or government-managed research laboratory, center, or institute.

Objectives:

Bangladesh's rapid economic, industrial, and urban growth has led to increased energy demand and consumption in the past decade. While the Government of Bangladesh (GoB) has set a target of 100 percent access to electricity for all by 2021, Bangladesh's energy challenges have become more complex as the development of modern energy systems has not kept up with strong GDP growth. In the years ahead, the gap between energy supply and increasing energy demand during the peak seasons will be difficult to close. Access to energy will continue to constrain economic development and undermine achieving the country's development goals. Moreover, the quality and reliability of the electricity grid, and availability and affordability of electricity will need to be tackled.

The GoB recognizes the importance of diversifying its energy sources with low-cost options, noting the critical role renewable energy and energy efficiency must play in meeting the country's energy demands while meeting the country's United Nations Framework Convention on Climate Change (UNFCCC) targets. The country will need an estimated 34,000 MW of power by 2030 to sustain its current economic growth rate of over seven percent. The GoB plans to invest an estimated \$70.5 billion to reach this goal.

The United States Agency for International Development (USAID) focuses on expanding access to modern energy services to power economic and social development, worldwide. Today, many developing countries like Bangladesh are in the process of creating and updating policy, legal and regulatory frameworks necessary to attract private investment in clean energy, increase energy efficiency, and expand access. USAID works across all aspects of the energy sector to build strong systems that can power global economic and social development. USAID is also working to foster economic growth and improved management and resilience of natural resources within the Indo-Pacific region under the Asia EDGE initiative (Enhancing Development and Growth through Energy)³. USAID/Bangladesh believes that technological innovation and research and development in energy and power are important for social and economic growth, environmental conservation and energy security in Bangladesh and in the region.

PEER seeks to support research projects in the power and energy sector in order to fill knowledge gaps in the understanding of energy security in Bangladesh. The proposed applied research projects would be expected to build a foundation from which Bangladesh can scale up technologies, tools, and strategies for efficient, cost-effective and environmentally sustainable solutions in the energy and power sector. Proposed research projects must explicitly respond to, address, and inform opportunities for Bangladesh to increase the country's energy security. Proposals that show a direct link to Asia EDGE will receive preference.

³ See https://www.usaid.gov/sites/default/files/documents/1861/July_8_Asia_EDGE_Factsheet.pdf for more information on Asia EDGE.

Research areas may include, but are not limited to:

- Advanced energy tools and systems
- Data driven tools for policy decisions
- On- and off-grid renewable energy solutions
- New and alternative energy solutions
- Energy efficiency and conservation measures
- Energy transmission and distribution systems and techniques
- Energy subsidy and socio-economic impact analysis
- Energy storage
- Innovative and cost-effective procurement tools and methods
- Enhanced utility management including reduced technical and commercial losses
- Cross-border energy trading mechanisms

Duration of Project:

Projects may request up to \$70,000/year. Projects ranging from one to three years in length resulting in the completion of the project by the end of the funding period will be eligible for consideration. Proposals received for projects greater than three years in length will not be considered for funding. Women are strongly encouraged to apply.

Focus Area: Tunisia/Multiple Sectors

Eligible Country: Tunisia

Additional Criteria for Applicants:

Please see Section V of the Solicitation for [General Eligibility requirements](#). For this focus area, applicants must be based at or have an affiliation with an institution of higher education (university), non-profit organization (NGO), or government-managed research laboratory, center, or institute.

Objectives:

PEER and USAID/Tunisia are seeking applicants with projects that will help grow the economy of Tunisia and lay a foundation to empower current and new generations. We are looking for research products and tools that will help establish Tunisia as a regional leader.

The following are USAID Tunisia's various priority areas with examples of the types of research projects and products that would help bring Tunisian society into the position of a regional hub.

1. Information and Communication Technologies (ICT)
 - a. Mapping out the current talents and capabilities in the ICT sector using geospatial tools
 - b. Research on how Tunisia could become a regional ICT Hub and action plan to get there
2. Small and Medium Enterprises (SMEs)
 - a. Describe the Tunisian SME ecosystem using novel tools
 - b. Partnerships and methods to improve delivery of 'last mile' services to the consumer or end user
 - c. Impact of ICT and entrepreneurship on the transformation of SMEs
3. Economic Growth
 - a. Applied and product research
 - b. Bringing technology to scale that will catapult Tunisia into a tech leader
 - c. Last mile research for products that will help drive the economic growth of different sectors
 - d. Data science and research to discover the gaps in skills versus available jobs in country
4. Energy
 - a. Projects related to renewable energy development
 - b. Research that explores energy diversification in Tunisia
5. Tourism
 - a. Research projects with a tourism focus, including eco-tourism

Strong applications will have a cross-disciplinary team (e.g., social scientist, communications specialist, economist, etc.) and a clearly articulated beneficiary or stakeholder (e.g., policymakers, NGOs, government ministries, etc.), influencers, and plan of engagement, including a communications strategy. Research results must also be action oriented with less of an emphasis on trainings and convening and more of an emphasis on research to measurable action, or interventions.

Duration of Project:

Projects should be designed to be implemented in one to three years with budgets of \$40,000 to \$80,000 (USD) per year for one institution (single institution award) and \$100,000 (USD) per year for awards involving support for more than one institution (multiple institution awards). Proposals received for projects greater than three years in length will not be considered for funding. Women are strongly encouraged to apply.

Focus Area: Vietnam/ Bioremediation of Dioxin and Furans

Eligible Country: Vietnam

Additional Criteria for Applicants:

Please see Section V of the Solicitation for General Eligibility requirements. For this focus area, applicants must be based at or have an affiliation with an institution of higher education (university), non-profit organization (NGO), or government-managed research laboratory, center, or institute.

Objectives:

Dioxin, a chemical constituent of Agent Orange[®] used as a defoliant by the United States during the U.S.-Vietnam war (1962-1971) remains present in soil and sediment in Vietnam at concentrations posing potential human health and ecological risks. The U.S. operated bulk storage facilities for Agent Orange[®] and related defoliants at Phu Cat, Da Nang, and Bien Hoa Airfields. Soil at these airfields was contaminated from releases of concentrated defoliant during storage and handling and by repeated ground application of the diluted product. Although much of the contaminated soil with dioxin concentrations greater than 1,000ppt has been or will be treated to destroy residual dioxin, significant quantities of soil containing dioxin below 1,000ppt has been landfilled or otherwise isolated to prevent direct human and ecologic contact.

PEER is seeking to support research projects focused on remediation of soil containing dioxin at concentrations between 20ppt and 1,000ppt, using bioremediation, phytoremediation, and photo-degradation methodologies. Additionally, the research should:

- Consider treatment efficacy at various concentration ranges of dioxin
- Account for the byproducts of remediation and degradation in a mass balance or similar evaluation
- Assess the effect of remediation on soil horticultural and physical properties
- Consider the effect of likely co-located contaminants such as arsenic.

PEER encourages proposals that connect their research to development of technologies suitable for treatment of soils contained in landfills constructed at Phu Cat and Da Nang airfields and areas where dioxin remains in shallow surface soils due to past application.

Projects of interest include those focused on reducing the toxicity and/or volume of residual dioxin and co-located contaminants such as arsenic in soils. Research that investigates methods of remediation that could be applied in localized areas to reduce human and ecologic exposure risks 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 increase local, community, and/or national environmental remediation capabilities 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. Projects that field test novel techniques or technologies for contaminant detection and treatment are encouraged if they are designed to help understand or remedy the effects of residual dioxin contamination on people, environments, or economies.

Duration of Project:

Projects should be designed to be implemented in one to three years with budgets of \$40,000 to \$80,000 (USD) per year for one institution (single institution award) and \$100,000 (USD) per year for awards involving support for more than one institution (multiple institution awards). Proposals received for projects greater than three years in length will not be considered for funding. Women are strongly encouraged to apply.