Capacity Development for Weather, Water, and Climate Forecasting and Disaster Risk Reduction

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NOTICE OF FUNDING OPPORTUNITY

EXECUTIVE SUMMARY

Federal Agency Name(s): National Weather Service (NWS), National Oceanic and Atmospheric Administration (NOAA), Department of Commerce

Funding Opportunity Title: Capacity Development for Weather, Water, and Climate Forecasting and Disaster Risk Reduction

Announcement Type: Initial

Funding Opportunity Number: NOAA-NWS-NWSPO-2021-2006845

Catalog of Federal Domestic Assistance (CFDA) Number: 11.467, Meteorologic and Hydrologic Modernization Development

Dates: Full applications must be received by 5:00 p.m. Eastern Daylight Time (EDT) on June 7, 2021. Applications received after this deadline will not be considered. For applications submitted via Grants.gov, a date and time receipt indication will form the basis for determining timeliness. For those applicants not having access to the Internet, one signed original and two hard copy applications must be submitted. Use of U.S. mail or another delivery service must be documented with a receipt. Note that late-arriving hardcopy applications provided to a delivery service on or before 5:00 p.m. EDT on the closing date for applications will be accepted for review if the applicant is able to document that the application was provided to the guaranteed delivery service by the specified closing date and time and if the application is received by NWS no later than 5:00 p.m. EDT, two business days following the closing date. No facsimile or electronic mail applications will be accepted. Applications submitted after 5:00 p.m. EDT, on June 7, 2021, will not be reviewed or considered for funding. Expected project start date is October 1, 2021.

Funding Opportunity Description: NOAA's National Weather Service, Office of the Director of the Office of International Affairs is soliciting proposals for Capacity Development for Weather, Water, and Climate Forecasting and Disaster Risk Reduction (CDDRR). The CDDRR program's goal is to improve the performance of all operational meteorological hydrological, and disaster/emergency management services worldwide. Improving agencies' performance for enhanced decision support services is done through collaboration between operational hydrologists/meteorologists, scientists, and other staff with expertise across a wide range of environmental, economic, and social and behavioral sciences. These activities engage operational hydrologists, meteorologists, and researchers in development and implementation of innovative programs which are pivotal to the improvement of weather and climate early warning services in developing countries.

All funding is contingent upon the availability of Federal appropriations. NOAA anticipates that up to $3,000,000.00 will be available annually, for a total of $15 million over five years. NOAA anticipates making one award for the five-year period and anticipates providing funds one or more times each year for five years. NOAA has no obligation to provide additional funding in connection with that award in subsequent years. Funding for each subsequent year of a multi-year proposal is at the discretion of NOAA and is subject to the availability of funds.. The actual annual funding that the awardee receives may be less than the anticipated amount and will depend on the availability of funding, the quality of the deliverables, and the satisfactory progress in achieving the stated goals described in project proposals, and continued relevance to program objectives.

Applications should include information that demonstrates an applicant's knowledge of the current status of and meet the technical and programmatic development and implementation requirements, including the structured and intense training programs, of the Weather Ready Nations (WRNs) and Global Flash Flood Guidance (GFFG) programs and address the objectives as discussed in the Program Objectives Section. Both programs have various projects and activities underway through other funding mechanisms and the applicant must be able to seamlessly support those programs. The applicant must also understand the current needs and requirements for countries in the process of implementing (or at least addressing) end-to-end, people-centered, early warning systems at national levels for multiple hazards. Most importantly, the applicant must have experience providing technology transfer and training to National Meteorological and Hydrologic Services globally. The applicant will be expected to work closely with the NWS/IAO partners in these programs such as the World Meteorological Organization (WMO).

FULL ANNOUNCEMENT TEXT

I. Funding Opportunity Description

A. Program Objective

The objectives of the CDDRR for Weather Ready Nations, Global Flash Flood Guidance Programs and Hydrometeorological Hazards Early Warning Systems Program (IPS) are to support capacity building in developing and least developed countries to reduce the socio-economic impacts of hydrometeorological-related risks and disasters and to ensure sustainable development. Early warning information that is timely, accurate, accessible and understandable is crucial in enabling at-risk communities to take effective, timely and pre-emptive action to reduce risks and avoid human causalities and losses.

To meet this objective, the NOAA NWS International Activities Office (NWS/IAO), through the CDDRR, will support the development and implementation of various international projects focused on the Weather Ready Nations (WRNs) and Global Flash Flood Guidance (GFFG) programs and on Hydrometeorological Hazards Early Warning Systems (HEWS) and their associated components. Both the WRNs and GFFG programs are ongoing and have a history of project development and implementations. It is anticipated that both programs will have new projects and activities that build off the past and existing accomplishments. HEWS activities have been accomplished as part of both the WRNs and GFFG programs.

The WRNs program is an impact-based forecasting and early warning approach for multiple hazards to develop capacity within National Meteorological and Hydrological Services (NMHSs), National Disaster Management Agencies (NDMAs), other partner agencies (e.g. transportation, infrastructure) and stakeholders (e.g. public, etc.) with the goal to provide people-centered early warnings for hydrometeorological hazards.

The initiation of a WRNs-type project in a country by the NWS-IAO is based on the recognition that people still lose their lives and socio-economic impacts still occur from hydrometeorological hazards due, in part, to a lack of information and understanding pertaining to the association of the forecasts of a hazardous event with its potential impacts. Improving the understanding of the potential impacts of hydrometeorological events poses a challenge to NMHSs and their partner agencies, particularly NDMAs. A WRNs project involves working with the NMHS, NDMA and other partners to make the transition from focusing only on forecast and warning accuracy, to also focusing on the impacts of a forecast and to develop and implement hydrometeorological hazard impact-based forecast and warning services. The WRNs program is patterned after similar developments as the Weather Ready Nation program in the U.S., the Impact-based Decision Support Services in Europe and the United Kingdom and World Meteorological Organization Publication No. 1150.

The WRNs program currently has projects supported by the NWS/IAO in the Republic of South Africa (recently completed), Barbados, El Salvador, Costa Rica, Guatemala and Indonesia and starting up in Fiji and the Bahamas. New projects are expected to begin in future years in Jamaica, Hispaniola, and in four small countries surrounding Barbados. Specifically, the WRNs program addresses the need to:

-Produce reliable and specific impact-based forecasts and warnings that integrate human, economic, cultural, risk and uncertainty criteria for weather-related events that impact safety, health, the economy, and environment;
- Understand socioeconomic impacts of how and what is forecasted and warned to target those at risk and communicate information in ways people fully understand and respond to; and,
-Engage with sectors whose safety, health, productivity, or security is at-risk; transportation and public health officials, water resource managers, natural resource managers and other stakeholders.
-A country specific WRNs project follows a programmatic approach developed during the successful implementation of past and current projects. Areas that are addressed in a typical project include:
-Development of common protocols among agencies of risk assessment methodologies, tools, and capabilities;
-Development of country risk and response matrices for all stakeholders, taking particular advantage of historical local knowledge of past extreme weather events;
-Country trainings and workshops with the purpose of educating users of weather forecasts on how to use impact forecast information (e.g. NMHS, NDMAs, public, media and other stakeholders); and,
- Engaging stakeholders on local to national levels whose role is to act as ‘change agents’ in relevant communities to help serve the public by strengthening their resilience against extreme weather events.
Under the WRNs Program, NWS/IAO wishes to further enhance its ongoing and future WRNs projects by considering, for example, translating uncertain hydrometeorological predictions to warning and evacuation plans, developing a science-based approach to link hazards with close similarities in forecast, warning and response features to develop a multiple hazards early warning approach to disaster risk reduction, developing effective decision-making processes that incorporate local contexts by defining accountability and responsibility, and acknowledging the importance of risk perception and trust for an effective reaction.
There will also be a need to support the NWS/IAO in various programmatic and technical meetings, workshops, seminars, and briefings with regards to WRNs program activities.
The Objectives for the WRNs program under the CDDRR are for the completion and

enhancement of ongoing projects (e.g., Bahamas) and the development of new projects in countries interested in improving their impact-based forecast and warning capabilities.
The Global Flash Flood Guidance (GFFG) program was initiated through a partnership between the World Meteorological Organization (WMO), the Hydrologic Research Center, U.S. Agency for International Development/Bureau for Humanitarian Assistance (USAID/BHA) and NOAA/NWS. The partners recognized the disastrous impact on lives and properties of affected populations by flash floods globally and so have developed and implemented the program to assist forecasters by providing the guidance needed to formulate and issue timely and accurate flash flood warnings for small basins. The program focuses on flash flood prone regions worldwide, especially in countries with sparse real time observations. The GFFG program is implemented for individual countries and for regions comprising two or more countries; with the Flash Flood Guidance System (FFGS) implemented for used operationally by National Meteorological and Hydrological Services (NMHSs) to develop flash flood warnings. The GFFG program is provides high level training to forecasters on the effective use of the FFGS.
The main objective of the GFFG program is to implement the FFGS to advance the capacity of NMHSs to forecast the potential occurrence of hydrometeorological hazards, namely flash flooding, and related secondary hazards, such as rainfall induced landslides, to save lives, alleviate human suffering and reduce social and economic impacts of these hazards. Currently, the program serves approximately 40% of the world population covering almost 3 billion people in over 60 countries.
Important technical elements of the FFGS are the development and use of a bias-adjusted satellite (e.g., using NOAA/NESDIS Global HydroEstimator and NOAA/CPC CMORPH) and/or radar precipitation estimates, country-provided local precipitation and temperature data, the configuration and implementation of mesoscale numerical weather prediction (NWP) models for development of high resolution surface precipitation fields and the use of physically-based hydrological modelling to develop products such as Soil Water Saturation Fraction, Flash Flood Guidance and Flash Flood Threat for basins on the order of 150-200 km2 (or 20-75 km2 within radar coverage). The FFGS allows the NMHSs to use local nowcast/short-term forecasted precipitation fields, including use of local forecaster knowledge and up-to-the-minute local information to provide adjustments to its products prior to the issuance of alerts or warnings.
With the FFGS implemented in over 60 countries already, a key focus of the GFFG Program under the CDDRR is the design, development and implementation of activities critical to the GFFG program growth and sustainability. These activities are necessary to assure sustainable, viable operation and maintenance of the GFFG program as it continues to expand and could include, but not be limited to, the following: the continued development of the various planning documents that are integral in the implementation of the GFFG program sustainability strategy activities; the enhancement, implementation and testing and the

operational implementation of the new NOAA/NESDIS multispectral satellite precipitation products with higher resolution; the enhancement of the FFGS using ensemble forecasts from GFS and mesoscale models to incorporate products pertaining to the uncertainty in estimates and forecasts of Flash Flood Threat; the implementation of FFGS interface enhancements for the improved forecaster estimation and the facilitation of Common Alerting Protocol messages; the use of the FFGS infrastructure together with its riverine routing component and the long range ensemble predictions from GFS and CFS to estimate flood and flash flood occurrence and magnitude with maximum lead times of a few months for disaster risk reduction and water resource applications; develop/enhance effective links between forecaster assessments and warnings, and the response of both disaster prevention agencies and the public; implementation of the landslide component of the FFGS in critical regions worldwide and associated training; implementation of urban flash flood component and forecast component of the FFGS in vulnerable cities within existing regional FFGS implementations including training; and, expanding and enhancing the GFFG training program.

Future regional and/or country implementations of the FFGS are also projected. WMO plays an important liaison role in these implementations and so would also be involved in any future implementations.

The Objectives for the GFFG program under the CDDRR are to continue to play a key role in supporting program sustainability efforts, the upgrade of existing and future FFGS implementations (e.g., addition of the urban flash flooding and landslide components) and new FFGS implementations.

Countries and donors are in the process of implementing (or at least addressing) end-to-end, people centered, Hazard Early Warning Systems (HEWS) at national levels for multiple hydrometeorological hazards. These systems are seen as a way to ensure sustainable development and to reduce the socio-economic impacts of climate-related risks and disasters. Early warning is essential in disaster risk reduction as it helps save lives and reduce the social and economic impacts of various hazard events like floods, droughts and other disasters.

It seems however that some countries wanting to emphasize preparedness and preventive strategies continue to struggle with how early warning information is compiled, communicated and used by local authorities and last mile communities. These countries may have existing HEWS-related policy and institutional frameworks but are unable to develop disaster risk reduction plans due to limited financial and human resources, lack of understanding of the purpose or significance of the plans, and inadequate experience or knowledge in developing them. These may be areas where programmatic and technical support are needed.

This assistance may include identification of the gaps in the desired outcomes of an HEWS including areas for improvement, for areas such as well-developed governance and

institutional arrangements; disaster risk knowledge; key hazards and threats identified; exposure, vulnerabilities, capacities and risks identified; roles and responsibilities of stakeholders identified; appropriate and available technical and operational capacities for observing, detecting, monitoring, forecasting and warning of hazards identified; preparedness and response capabilities; and efficient, clear and timely communication of weather- and warning-related data and information and understanding its impact and effect on the user operations and needs. Other considerations include the implementation of demonstration projects that include a variety of regions with varying cultures, socioeconomic standing, and climatic conditions to show the benefits of an HEWS as well as to evaluate causes of failure.
The Objectives for the Hazard Early Warning System program under the CDDRR are to provide programmatic and technical support to countries in implementing people-centered, end-to-end early warning systems, possibly in combination with countries involved in the WRNs and/or GFFG programs.

B. Program Priorities

NOAA will give attention to proposals addressing the identified priorities as listed below and the program objectives outlined above. Proposals must clearly articulate how these priorities and objectives will be addressed. The proposal must address the programmatic and technical approaches to be taken and clearly demonstrate the applicant's understanding of the programs and indicate its ability to address the goals of the CDDRR. Program. Priorities are:

-Expand the number of WRNs projects based on needs of countries to improve their early warning system functionality and capabilities with an emphasis on impact based forecast and warnings.
-Enhance WRNs applications to better include at risk and vulnerable communities through risk identification and education, and to enhance landslide and urban flooding components of the program.
-Enhance WRNs to improve decision making and better understanding and anticipating the likely human and socio-economic impacts associated with severe weather and communicate those impacts to stakeholders in an effective manner, delivering accurate and easily understandable information, data services and products that can be skillfully integrated into the decision-making process.
For the GFFG program
-Systems Sustainability and Enhancing Forecaster Use – address critical GFFG program (including the FFGS) sustainability issues as identified through analysis of the needs and

requirements of the current program, including maintaining global and local data communications.
-Enhancing Flash Flood Guidance System Capabilities and Utility – continued upgrades to the Flash Flood Guidance System, its software, operating system efficiency, and products; further applications beyond standard flash flood applications to include landslide threat assessment capabilities, flash flood occurrence in urban areas, and riverine forecasting or routing.
-Training and Capacity Building – increasing and strengthening training programs for forecasters and users through online, in-person and remote training approaches.
-Enhancing Effectiveness for Disaster Prevention – Strengthen links to disaster management relevant to flash floods through training and decision support tools.
For the HEWS program
-Develop structured approaches to supporting the implementation of end-to-end, people centered, Hazard Early Warning Systems (HEWS) at national levels for multiple hydrometeorological hazards. The approach must consider a range of needs, requirements, resource and technical capacities.
- Evaluate the programmatic approaches for design and implementation of hydrometeorological Multi-hazard Early Warning Systems including the technical feasibility.

C. Program Authority

NOAA's authority to support the research and associated activities anticipated by this NOFO is contained in one or more of the following:
-- 15 U.S.C. § 313, the Weather Service Organic Act;
-- 49 U.S.C. § 44720, which authorizes NOAA, inter alia, to maintain agreements and support research projects in meteorology through the use of private and Governmental research facilities; and
-- 33 U.S.C. § 893a, the provision of the America COMPETES Act which authorizes NOAA to conduct, develop, support, promote, and coordinate formal and informal educational activities at all levels to enhance public awareness and understanding.

II. Award Information

A. Funding Availability

NOAA anticipates up to $3,000,000.00 per year will be made available annually for this award. The actual annual funding that the awardee receives may be less than the anticipated

amount and will depend on the actual projects that are approved by NOAA after the main award begins, the availability of funding, the quality of the deliverables, the satisfactory progress in achieving the stated goals described in project proposals, and continued relevance to program objectives.

B. Project/Award Period

This program announcement is for projects to be conducted for a five-year period, with an anticipated start date of September 1, 2021 unless otherwise directed. When a proposal for a multi-year award is approved, funding will initially be provided for only the first year of the program. It will be contingent upon satisfactory progress in relation to the stated goals of the proposal to address specific science needs and training priorities. Applications must include a scope of work and a budget for the entire award period.

C. Type of Funding Instrument

The funding instrument for extramural awards will be a cooperative agreement since one or more NOAA components will be substantially involved in implementation of the project.

III. Eligibility Information

A. Eligible Applicants

Eligible applicants are private, non-profit entities and academic institutions in the United States.

B. Cost Sharing or Matching Requirement

No cost sharing is required under this program

C. Other Criteria that Affect Eligibility

None

IV. Application and Submission Information

A. Address to Request Application Package

The standard application package is available at http://www.grants.gov.

If an applicant does not have internet access, an application package may also be requested by contacting: Dan Beardsley, International Projects Manager, Office of International Affairs, NOAA /NWS 1325 East-West Highway, Room 17033

Silver Spring, Maryland 20910 Phone: 301-427-9041; cell: 240-566-6611
Email: Dan.Beardsley@noaa.gov

B. Content and Form of Application

Proposals should total no more than 50 pages in length, single spaced, with one inch margins on 8 1/2 x 11 inch paper. The proposal should use Times New Roman 12 point font. Federally-mandated forms, tables of content, PI and staff vitae, budget tables, and any letters of support are not included within the page count.
Multi-year proposals up to a maximum of five years will be considered; however, funding beyond the first year will be dependent upon satisfactory performance and the availability of funds. September 1, 2021 is to be used as the proposed start date on proposals unless otherwise directed by the NOAA Program Officer.
The application elements listed below are required before an award can be made. Failure to submit elements 1, 4, and 5 by the deadline will result in the application not being reviewed if the omissions are not corrected prior to the deadline. The aforementioned application elements are as follows:

1. Title Page. The title page must be officially authorized by the institutional representative. The PI and institutional representative should be identified by full name, title, organization, telephone number, and address. It is requested that the title page clearly indicate which project areas are being addressed and the total amount of requested Federal funds be listed for each budget period.

2. Abstract Page. An abstract should be included and should contain an introduction of the problem, rationale, and a brief summary of work to be completed. The abstract should appear on a separate page, headed with the proposal title, institution's investigators, total proposed cost, and budget period.

3. Results from Prior Training and/or Research. The results of relevant projects should be described, including their relation to the currently proposed work. Reference to each prior award should include the title, agency, award number, PIs, period of award, and total award. The section should be a brief summary and should not exceed five pages total.

4. Project description. The proposed project must be completely described, including identification of the problem; scientific and training objectives; proposed methodology; relevance to the priorities of operational hydrometeorology; operational applicability; scientific merit; proposed technology transfer; past collaborations with operational hydro meteorologists; cost effectiveness of training materials and approaches; and the program priorities listed above. Benefits of the proposed project to the general public and the broader

scientific and educational community must be discussed. A year-by-year summary of proposed work must be included. Technical description of the infrastructure proposed for user access of the education and training materials must be provided. Specific plans for Capacity Development in support of WMO Objectives must be included.

5. Budget and Proposed Budget Justifications.

Applicants must submit a Standard Form (SF) 424, Application for Federal Assistance, including a detailed budget using the SF 424A, Budget Information--Non-Construction Programs. (The forms are available on grants.gov.) Applicants should pay careful attention to show the yearly budget breakout on the SF 424A for multi-year proposals. In addition, the body of the proposal should include a separate table showing total and annual budgets (if multi-year) corresponding with the project description. Additional text to justify expenses should be included as necessary.

6. Vitae. Abbreviated curriculum vitae are sought with each proposal. Reference lists should be limited to all publications in the last five years with up to five other relevant papers.

7. Current and Pending Support. For each investigator, submit a list which includes project title, supporting agency with grant number, investigator months, dollar value, and duration. Requested values should be listed for pending support.

8. National Environmental Policy Act (NEPA) Questionnaire: NOAA has determined that applicants do not need to provide answers to the NEPA Questionnaire at this time.

9. Data Management Plan (up to 2 pages): See Section VI.B.4, Administrative and National Policy Requirements, for additional information on what the plan should contain.

10. The full proposal package includes the information described above as well the following required federal forms: (1) Application for Federal Assistance (SF-424); (2) Budget Information--Non-Construction Programs (SF-424A): For multi-year proposals, pay careful attention to show the yearly budget breakout on the SF-424A; (3) Certification Regarding Lobbying (CD-511); (4) Assurances - Non Construction Programs (SF-424B); (5) Disclosure of Lobbying Activities (SF-LLL). Current versions of these forms are available

Grants.gov.

C. Unique Entity Identifier and System for Award Management (SAM)

To enable the use of a universal identifier and to enhance the quality of information available to the public as required by the Federal Funding Accountability and Transparency Act, 31 U.S.C. 6101 note, to the extent applicable, any proposal awarded in response to this announcement will be required to use the System for Award Management (SAM), which may be accessed online at https://www.sam.gov/portal/public/SAM/. Applicants are also required to use the Dun and Bradstreet Universal Numbering System, as identified in OMB guidance published at 2 CFR Parts 25, which may be accessed at: https://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title02/2cfr25_main_02.tpl.

Applicants should allow a minimum of five days to complete the SAM registration. Registration is required only once, but must be renewed periodically. Each applicant is required to:
(i) Register in SAM before submitting an application;
(ii) Provide a valid unique entity identifier in the application; and
(iii) Continue to maintain an active SAM registration with current information at all times during which it has an active Federal award or an application or plan under consideration by NOAA (or any other Federal agency).

NOAA may not make a Federal award to an applicant until the applicant has complied with all applicable unique entity identifier and SAM requirements. If an applicant has not fully complied with the requirements by the time NOAA is ready to make a Federal award, NOAA may determine that the applicant is not qualified to receive a Federal award and use that determination as a basis for making a Federal award to another applicant.

In all, there are approximately eight steps needed to set up your organization's Grants.gov account. It can take between 3-5 business days or as long as 3 weeks to register if all steps are not completed in a timely manner. Organizations already registered with Grants.gov are not required to re-register but should ensure their Grants.gov password is up to date. Additional information about the Grants.gov registration process can be found online at https://www.grants.gov/web/grants/applicants/registration.html.

Users of Grants.gov will be able to download a copy of the application package, complete it

offline, and then upload and submit the application via the Grants.gov site. If an applicant has problems downloading the application forms from Grants.gov, contact Customer Support at 1-800-518-4726 or support@grants.gov.

D. Submission Dates and Times

Full applications must be received by 5:00 p.m. Eastern Daylight Time (EDT) on June 7, 2021. Applications received after this deadline will not be considered. For applications submitted via Grants.gov, a date and time receipt indication will form the basis for determining timeliness. For those applicants not having access to the Internet, one signed original and two hard copy applications must be submitted. Use of U.S. mail or another delivery service must be documented with a receipt. Note that late-arriving hardcopy applications provided to a delivery service on or before 5:00 p.m. EDT on the closing date for applications will be accepted for review if the applicant is able to document that the application was provided to the guaranteed delivery service by the specified closing date and time and if the application is received by NWS no later than 5:00 p.m. EDT, two business days following the closing date. No facsimile or electronic mail applications will be accepted. Applications submitted after 5:00 p.m. EDT, on June 7, 2021, will not be reviewed or considered for funding. Expected project start date is October 1, 2021.

E. Intergovernmental Review

Applications under this program are not subject to Executive Order 12372

F. Funding Restrictions

NOAA will not consider expenses associated with fees, fund-raising activities, travel for activities not directly related to project implementation, travel or salaries for Federal employees, or profit as allowable costs in the proposed budget. The total costs of a project consist of all allowable costs incurred in accomplishing project activities during the project period. Project costs can only include support for activities conducted between the effective start date and end date of the award, and cannot include activities undertaken either before or after the agreed upon dates. Applicants will not be reimbursed for time expended or costs incurred in developing a project or in preparing an application, or in any discussions or negotiations with the agency prior to the award. Funding beyond the first year may be dependent upon satisfactory performance and continued availability of funds. NOAA is not responsible for proposal preparation costs.

G. Other Submission Requirements

All applicants are strongly encouraged to submit proposals through the Grants.gov

portal. For applicants without Internet access, hard copy proposals will be accepted. The hard copies must be submitted by postal mail, commercial delivery service, or hand-delivery. Hard copy proposals must be submitted to:

NOAA/NWS
ATTN: Dan Beardsley, International Projects Manager
1325 East-West Highway, Room 17033
Silver Spring, Maryland 20910

V. Application Review Information

A. Evaluation Criteria

Proposals will be evaluated using the standard NOAA evaluation criteria. Various questions under each criterion are provided to ensure that the applicant includes information that NOAA will consider important during the evaluation, in addition to any other information provided by the applicant.

1. Importance/Relevance and Applicability of Proposal (30 percent): This criterion ascertains whether there is intrinsic value in the proposed work and/or relevance to NOAA, Federal, regional, state, or local activities. For CDDRR competition this includes:
-What is the historical track record of the applicant in collaborative outreach between the operational and research weather, water, and climate communities?
-What is the likelihood of the proposed science training and education activities to improve performance in support of operational hydro meteorological services?
-What is the plan for ensuring productive collaboration among relevant federal, state, and international agencies?
2. Technical/Scientific Merit (25 percent): This criterion assesses whether the approach is technically sound and/or innovative, if the methods are appropriate, and whether there are clear project goals and objectives. For the CDDRR competition this includes:
-Were focused evaluation objectives appropriate?
-Are the proposed capacity development initiatives in line with the technical and human capabilities of the international country?
-Are focused scientific objectives and strategies, including data management considerations and project milestones used?

3. Overall Qualification of Applicants (25 percent): This criterion ascertains whether the applicant possesses the necessary education, experience, training, facilities, and administrative resources to accomplish the project. For the CDDRR competition this includes:
-Does the PI and key staff clearly document past experience in the design and international implementation of weather, water, and climate programs?
-Are key staff likely to maintain effective and consistent interactions with operational hydro meteorologists and other appropriate international officials, such as from DEM agencies, throughout the course of the proposed CDDRR program?
-Have key staff and the PI demonstrated the ability to conduct successful training and education of large numbers of international students synchronously, and asynchronously, through virtual and simulation approaches?
-Is applicant cognizant of the current status of and meet the intricate technical and programmatic development and implementation requirements of the WRNs and GFFG programs and the objectives of the CDDRR as discussed in the Program Objectives?
-Does applicant have working knowledge of the FFGS technology and its global implementation and application processes and for the development and implementation of WRNs projects?
-Does applicant understand the current needs and requirements for developing and least developed countries in the process of implementing (or at least addressing) end-to-end, people-centered, early warning systems at national levels for multiple hazards?
-Does applicant have previous experience on successful technology transfer and training projects with National Meteorological and Hydrologic Services worldwide and have working relationships with the NWS/IAO partners in these programs such as the World Meteorological Organization (WMO)?

4. Project Costs (20 percent): This criterion evaluates the budget to determine if it is realistic and commensurate with the project needs and time-frame. For the competition this includes:
-Does the PI and key staff demonstrate the ability to utilize their resources in a cost efficient manner?
-Is there a high ratio of operationally useful results versus proposed costs?
-Are proposed approaches cost effective in various budgetary scenarios?
-Are proposed Capacity Development solutions the most-cost effective method of improving the observational and dissemination capabilities of the country given the country’s technological advancement level?

B. Review and Selection Process

An initial administrative review/screening is first conducted to determine compliance

with requirements/completeness. Thereafter, these proposals will be evaluated and individually ranked in accordance with the assigned weights of the above-listed evaluation criteria by an independent peer review panel. At least three experts, who may be Federal or non-Federal, will be used in this process. Each expert will submit an individual merit review and there will be no consensus opinion. The merit reviewers' ratings are used to produce a rank order of the proposals. The Selecting Official selects proposals after considering the peer reviews and selection factors listed below. In making the final selections, the Selecting Official will award in rank order unless the proposal is justified to be selected out of rank order based upon one or more of the selection factors. The Selecting Official makes the final award recommendation to the Grants Officer authorized to obligate funds.

C. Selection Factors

The merit review ratings shall provide a rank order to the Selecting Official for final funding recommendations. The Selecting Official shall award in the rank order unless the proposal is justified to be selected out of rank order based upon one or more of the following factors:

1. Availability of funding

2. Balance and distribution of funds:
   a. By project type
   b. By type of institution
   c. By type of partners, if any
   d. Geographically

3. Program priorities and policy factors.

4. Applicant's prior award performance.

5. Partnerships with/Participation of targeted groups.

6. Adequacy of information necessary for NOAA staff to make a National Environmental Policy Act (NEPA) determination and draft necessary documentation before recommendations for funding are made to the NOAA Grants Officer.

Awards may not necessarily be made to the highest scored proposals.

D. Anticipated Announcement and Award Dates

October 1, 2021, should be used as the proposed start date on proposals. The announcement of the award is expected around July 1, 2021.

VI. Award Administration Information

A. Award Notices

Applicants will receive notification from NWS that their application has either been recommended or not recommended for funding to the NOAA Grants Management Division after completion of the review process. Notice of recommendation for funding is not an authorization to initiate the project. Official notification of funding of the grant award, signed by a NOAA Grants Officer, is the authorization that allows the project to begin.

NOAA's Grants Management Division will normally make award offers approximately one month before the planned start date. This notification will be issued to the Authorizing Official of the project after approval and is the official document that authorizes the project to begin.

B. Administrative and National Policy Requirements

1. DEPARTMENT OF COMMERCE PRE-AWARD NOTIFICATION REQUIREMENTS FOR GRANTS AND COOPERATIVE AGREEMENTS:
The Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements contained in the Federal Register notice of December 30, 2014 (79 FR 78390) are applicable to this solicitation and may be accessed online at http://www.gpo.gov/fdsys/pkg/FR-2014-12-30/pdf/2014-30297.pdf.

2. LIMITATION OF LIABILITY:
Funding for programs listed in this notice is contingent upon the availability of Congressional appropriations. In no event will NOAA or the Department of Commerce be responsible for the application preparation costs. Publication of this notice does not oblige NOAA to award any specific project or to obligate any available funds. If one incurs any costs prior to receiving an award agreement signed by an authorized NOAA official, one would do so solely at one's own risk of these costs not being included under the award or of not receiving an award.

3. NATIONAL ENVIRONMENTAL POLICY ACT (NEPA):

If recommended for funding, applicants whose proposed projects may have an environmental impact will be asked to furnish sufficient information to assist NOAA in assessing the potential environmental consequences of supporting the project. NOAA must analyze the potential environmental impacts, as required by NEPA, for each project which seeks NOAA funding. Detailed information on NEPA can be found at the following NOAA NEPA web site: www.nepa.noaa.gov, including our NOAA Administrative Order 216-6A for NEPA, http://www.corporateservices.noaa.gov/ames/administrative_orders/chapter_216/216-6A, and the Council on Environmental Quality implementation regulations, https://ceq.doe.gov/ceq_regulations/regulations.html.

If needed by NOAA for NEPA assessment, applicants will be asked to provide detailed information on the activities to be conducted, locations, sites, species, and habitat to be affected, possible construction activities, and any environmental concerns that may exist (e.g., the use and disposal of hazardous or toxic chemicals, introduction of non-indigenous species, impacts to endangered and threatened species, aquaculture projects, and impacts to coral reef systems). In addition to providing specific information that will serve as the basis for any required impact analyses, applicants may also be requested to assist NOAA in drafting an environmental assessment if NOAA determines an assessment is required. Applicants will also be required to cooperate with NOAA in identifying feasible measures to reduce or avoid any identified adverse environmental impacts of their proposal. The failure to do so shall be grounds for not selecting an application. In some cases if additional information is required after an application is selected, funds can be withheld by the Grants Officer under a special award condition requiring the recipient to submit additional environmental compliance information sufficient to enable NOAA to make an assessment on any impacts that a project may have on the environment.

4. DATA SHARING PLAN:

a) Environmental data and information collected or created under NOAA grants or cooperative agreements must be made discoverable by and accessible to the general public, in a timely fashion (typically within two years), free of charge or at no more than the cost of reproduction, unless an exemption is granted by the NOAA Program. Data must be available in at least one machine-readable format, preferably a widely-used or open-standard format, and should also be accompanied by machine-readable documentation (metadata), preferably based on widely used or international standards.

b) Proposals submitted in response to this Announcement must include a Data Management Plan of up to two pages describing how these requirements will be satisfied.

The contents of the Data Management Plan (or absence thereof), and past performance regarding such plans, will be considered as part of proposal review. A typical plan should include descriptions of the types of environmental data and information expected to be created during the course of the project; the tentative date by which data will be shared; the standards to be used for data/metadata format and content; methods for providing data access; approximate total volume of data to be collected; and prior experience in making such data accessible. The costs of data preparation, accessibility, or archiving may be included in the proposal budget unless otherwise stated in the Guidance. Accepted submission of data to the NOAA National Centers for Environmental Information (NCEI) is one way to satisfy data sharing requirements; however, NCEI is not obligated to accept all submissions and may charge a fee, particularly for large or unusual datasets.

c) NOAA may, at its own discretion, make publicly visible the Data Management Plan from funded proposals, or use information from the Data Management Plan to produce a formal metadata record and include that metadata in a Catalog to indicate the pending availability of new data.

d) Proposal submitters are hereby advised that the final pre-publication manuscripts of scholarly articles produced entirely or primarily with NOAA funding will be required to be submitted to NOAA Institutional Repository after acceptance, and no later than upon publication. Such manuscripts shall be made publicly available by NOAA one year after publication by the journal.

5. UNPAID OR DELINQUENT TAX LIABILITY:

In accordance with Section 523 of Division B and Sections 744 and 745 of Division E of the Consolidated and Further Continuing Appropriations Act, 2015 (Pub. L. 113-235) or a future public law, an authorized representative of the selected applicant(s) will be required to provide certain pre-award representations regarding federal felony and federal criminal tax convictions, unpaid federal tax assessments, and delinquent federal tax returns.

6. REVIEW OF RISK:

After applications are recommended for funding by the Selecting Official, the Grants Management Division will perform administrative reviews, including an assessment of risk posed by the applicant under 2 C.F.R. 200.205. The reviews may include assessments of the financial stability of an applicant, the quality of the applicant's management systems, history of performance, and the applicant's ability to effectively implement statutory, regulatory, or other requirements imposed on non-federal entities. Upon review of these factors, if appropriate, special conditions that correspond to the degree of risk may be applied. Applicants may submit comments to the Federal Awardee Performance and Integrity Information System (FAPIIS) about any information included in the system about their organization for consideration by the awarding agency.

7. FREEDOM OF INFORMATION ACT (FOIA):

In the event that an application contains information or data that you do not want disclosed prior to award for purposes other than the evaluation of the application, mark each page containing such information or data with the words "Privileged, Confidential, Commercial, or Financial Information - Limited Use" at the top of the page to assist NOAA in making disclosure determinations. DOC regulations implementing the Freedom of Information Act, 5 U.S.C 552, are found at 15 C.F.R. Part 4, which sets forth rules for DOC to make requested materials, information, and records publicly available under FOIA. The contents of funded applications may be subject to requests for release under the FOIA. Based on the information provided by the applicant, the confidentiality of the content of funded applications will be maintained to the maximum extent permitted by law.

8. INDIRECT COST RATE:

Applicants requesting indirect costs (IDC) are required to submit a copy of their current and signed indirect cost rate agreement with the application package. If an applicant does not have a current Facilities and Administrative (Indirect) Cost Rate Agreement that was negotiated and approved by the Department of Commerce (or by the applicable cognizant Federal agency), please provide a statement to this effect. The applicant must prepare and submit a cost allocation plan and rate proposal or a negotiated indirect cost rate as required by 2 CFR Part 200 “Uniform Administrative Requirements, Cost Principles and Audit Requirements for Federal Awards.” See 2 CFR § 200.414. The allocation plan and the rate proposal must be submitted to NOAA (or applicable cognizant Federal agency) within ninety (90) days from the award start date.

Alternatively, in accordance with 2 CFR § 200.414(f), a non-Federal entity that does not have a current negotiated indirect cost rate may elect to charge a de minimis rate of 10 percent of modified total direct costs. Applicants proposing a 10 percent de minimis rate pursuant to 2 C.F.R. § 200.414(f) should note this election as part of the budget and budget narrative portion of the application. Indirect costs proposed under the award must be clearly identified as a separate budget line item. The NOAA contact for indirect or facilities and administrative costs is:

Lamar Revis, Grants Officer, NOAA Grants Management Division.
1325 East West Highway, 9th Floor. Silver Spring, Maryland 20910.
email: lamar.revis@noaa.gov

9. MINORITY SERVING INSTITUTIONS:
The Department of Commerce/National Oceanic and Atmospheric Administration (DOC/NOAA) is strongly committed to increasing the participation of Minority Serving Institutions (MSIs), i.e., Historically Black Colleges and Universities, Hispanic-serving institutions, Tribal colleges and universities, Alaskan Native and Native Hawaiian institutions, and institutions that work in underserved communities.

10. NOAA SEXUAL ASSAULT AND SEXUAL HARASSMENT PREVENTION AND POLOICY RESPONSE:

If NOAA-operated, leased, or owned facilities are involved in any awards funded under this announcement, such awards are subject to the NOAA Sexual Assault and Sexual Harassment Prevention and Response Policy Applicable to Financial Assistance Awards Involving NOAA-Operated Facilities (May 2018) found at:
http://www.ago.noaa.gov/grants/facilities_assault_policy.html.

11. UNIFORM ADMINISTRATIVE REQUIREMENTS, COST PRINCIPLES AND AUDIT REQUIREMENTS):

Through 2 C.F.R. § 1327.101, the Department of Commerce adopted Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards at 2 C.F.R. Part 200, which apply to awards in this program. Refer to:
http://www.osec.doc.gov/oam/grants_management/policy/.

12. DOC TERMS AND CONDITIONS
Successful applicants who accept a NOAA award under this solicitation will be bound by Department of Commerce Financial Assistance Standard Terms and Conditions. This document will be provided in the award package in NOAA's Grants Online System at https://grantsonline.rdc.noaa.gov/flows/home/Login/LoginController.jpf and at http://go.usa.gov/hKbj.

C. Reporting

Award recipients will be required to submit financial and performance (technical) reports. These reports are to be submitted electronically through the NOAA Grants Online system on a semi-annual basis. All financial reports are routed directly to the NOAA Grants Officer. Performance reports are routed to the NOAA Federal Program Officer.

The first technical progress report covering the first 9 months of a multi-year award is due 10 months after the start date of the award. Each subsequent technical progress report covering a period of 12 months is due 12 months after the previous report. The comprehensive final technical progress report is due 90 days after the expiration date of the award.

The Federal Funding Accountability and Transparency Act, 31 U.S.C. 6101 note, includes a requirement for awardees of applicable Federal grants to report information about first-tier sub awards and executive compensation under Federal assistance awards. All awardees of applicable grants and cooperative agreements are required to report to the Federal Sub-award Reporting System (FSRS) available at https://www.fsrs.gov/ on all sub-awards over $25,000.

VII. Agency Contacts

The point of contact is Dan Beardsley, International Projects Manager, International Affairs Office, NOAA/NWS, 1325 East-West Highway, Room 17033; Silver Spring, Maryland 20910-3283, or by phone at 301-427-9o41, cell at 240-566-6611, or via email at: Dan.Beardsley@noaa.gov.

VIII. Other Information

None.