



## **REQUEST FOR EXPRESSIONS OF INTEREST (CONSULTING SERVICES – FIRM SELECTION)**

***BADAN METEOROLOGI, KLIMATOLOGI DAN GEOFISIKA***  
**THE METEOROLOGY, CLIMATOLOGY AND GEOPHYSICS AGENCY**  
**INDONESIA DISASTER RESILIENCE INITIATIVE PROJECT (IDRIP)**

Loan No./Credit No./ Grant No.: 89800-ID

**Assignment Title: Management for EEWS Development**

**Reference No.: ID-BMKG-342612-CS-CQS-2**

The Government of Indonesia has received financing in the amount USD160 million from the World Bank toward the cost of the Indonesia Disaster Resilience Initiative Project, and intends to apply part of the proceeds for individual consulting services namely Management for EEWS Development.

The terms of reference of the Management for EEWS Development under the supervision of the Center of Engineering Seismology, Potential Geophysics and Time Mark as follows:

1. The purpose of Earthquake Early Warning System Prototype Development Management activity are as follows:
  - a) Availability of inputs and technical and strategic recommendations related to conceptual ideas in managing hardware, software, power supply, and communication networks in the development of the EEWS prototype system.
  - b) Realization of technical implementation support related to the EEWS prototype communication network infrastructure.
  - c) Realization of technical implementation support related to the EEWS prototype hardware infrastructure
  - d) Realization of technical implementation support related to the EEWS prototype software infrastructure
  - e) Realization of technical implementation support related to the EEWS prototype web infrastructure.
  - f) Realization of technical implementation support related to equipment inventory and database and EEWS prototype equipment data.
  - g) Realization of technical implementation support related to the need for web displays, equipment monitoring displays, workspaces, and illustrations of how the EEWS prototype system works.

- h) Availability of documents related to the needs of EEWS prototype development activities (English and Indonesian).
- i) Realization of design support and technical implementation related to system infrastructure integration (hardware, software, and communication network) prototype EEWS.
- j) Availability of information on the quantity of hardware, software, power supply and communication network requirements in the development of the EEWS prototype system.
- k) Availability of booklets, leaflets, banners and EEWS prototype videos.
- l) Availability of training by consultants in fields of programming, hardware, software, web administration, graphic design, and languages (English and Indonesian).

## **2. Scope of Works**

The scope of work includes, but is not limited to, the following duties:

2.1. Preparation is to prepare for the implementation of activities, include:

- a) Coordination with stakeholders, technical team, other related parties to agree on work plans, work implementation methodologies and work outputs.
- b) Preparation of the Concept Management System for the Earthquake Early Warning System (EEWS) prototype development.

2.2. Implementation

- a) Technical implementation related to the creation of infrastructure or the flow of concepts for managing hardware, software, power supply and communication networks in the construction of the Earthquake Early Warning System prototype
- b) Making an inventory list of needs for the construction of the Earthquake Early Warning System prototype
- c) Making the Terms of Reference and the Draft Budget needed for the construction of the Earthquake Early Warning System prototype
- d) Assess the Earthquake Early Warning System prototype development system
- e) Analyze the results of the assessment and the methods used in the implementation of the Earthquake Early Warning System prototype development
- f) Provide strategic technical advice related to all phases of activity implementation and discuss options and possible solutions
- g) Monitoring the design and implementation of the Earthquake Early Warning System prototype development activity as well as evaluating for continuous

project improvement.as well as evaluating for continuous project improvement.

### 2.3. Evaluation and Activity Report

- a) Monitoring the design and implementation of the Earthquake Early Warning System prototype development activity.
- b) Coordinate routine review activities on the evaluation results of project implementation with related parties, such as providers, users, and others.
- c) Coordinate closely with the head of PMU and PIU in reporting on the activities of the Earthquake Early Warning System (EEWS) prototype development and contribute to overcoming problems of work activities that require strategic input on a regular basis.
- d) Reporting on the implementation of activities in stages from preparation to handover or signing of the minutes of work documents.

### **3. Qualifications and Experience of Consulting Business Entities required**

- a) Consulting Business Entities have Work Experience in the Field of Information Technology, Information Technology Networks and Databases, Hardware, and Software. Providers have experience in at least two of the four fields of work experience;
- b) Business Entities have work experience in the Field of Geophysics/Seismic Data Management and Processing;
- c) Having work experience with internationally financed projects such as loans/grants/other schemes with a value of more than IDR2,500,000,000;
- d) Preferably have work experience in the field of Early Warning System.
- e) Point number 2 until 4 are added value in the selection process.

### **4. Qualifications and Experience of Individual Consultants required**

- a) 1 (one) Expert in the field of Information Technology as a Team Leader with a minimum Master's degree, minimum 5 years of work experience, and has a Skills Certificate or experience attending training/seminars in the field of Information Technology. Skills Certification/Seminar/Webinar that can be submitted such as MCTS (Microsoft Certified Technology Specialist)/

MCITP (Microsoft Certified IT Professional)/ PMP (Project Management Professional)/ CISSP (Certified Information Systems Security Professional) Certification or similar.

- b) 1 (one) Expert in the field of Network and Database Technology with a minimum Bachelor's degree (S1) or equivalent, minimum 5 years of work experience, and has a Skills Certificate or experience attending training/seminars in the field of Network and Database Technology. Skills Certification/Seminar/Webinar that can be submitted such as Cisco Certified Network Associate (CCNA)/Microsoft Certified Solutions Associate (MCSA) SQL Server/CompTIA Network+/Oracle Certified Associate (OCA) Database Administrator Certification or similar.
- c) 1 (one) Expert in Hardware with a minimum education Bachelor (S1) or equivalent, minimum 5 years work experience, and has a Skills Certificate or experience attending training/seminars in the Hardware sector. Skills Certification/Seminar/Webinar that can be submitted such as PMI Certified Associate in Project Management (CAPM)/BICSI Technician or similar. Preferably those who have additional certification or have attended seminars/webinars related to Technical Configuration/Installation/Maintenance of Earthquake Detection Equipment or the like.
- d) 1 (one) Expert in the field of Software Programming with a minimum Bachelor's degree (S1) or equivalent, a minimum of 5 years of work experience, and has a Skills Certificate or experience attending training/seminars in the field of Software Programming. Skills/Seminar/Webinar Certification that can be submitted such as Google Cloud Certified - Professional Cloud Architect/Certified Software Development Professional (CSDP)/Microsoft Technology Associate (MTA) or similar.
- e) 1 (one) Sub-Professional Expert in the field of web administrator with a minimum Bachelor's degree (S1) or equivalent, work experience of less than 3 years, and has a Skills Certificate or has experience in attending

training/seminars in the field of Web Administrator. Skills Certification/Seminar/Webinar that can be submitted such as Certified Web Administrator (CWA)/Red Hat Certified System Administrator (RHCSA)/ Certified Internet Web Professional (CIW) or similar

- f) 1 (one) Sub-Professional Expert in the field of Graphic Design with a minimum Bachelor's degree (S1) or equivalent, as well as work experience of less than 3 years, Skills Certificate, or experience in attending training/seminars in the field of Graphic Design. Skills/Seminar/Webinar Certification that can be submitted such as Adobe Certified Expert (ACE)/Certified Graphic Designer (CGD)/Certified Web Designer (CWD)/Certified User Experience Professional (CUXP)/Certified Design Thinking Professional (CDTP) or similar.
- g) 1 (one) Sub-Professional Expert in field of Language (English and Indonesian) with a minimum Bachelor's degree (S1) or equivalent, and work experience of less than 3 years, Skills Certificate, or having experience attending training/seminar in the field of Language (Indonesian and English). Skills Certification/Seminar/Webinar that can be submitted such as Certified Translation Professional (CTP)/Certified Translator (CT) or similar.
- h) The calculation of years of work experience for Experts and Sub-Professional Experts is based on the accumulation of years of comparable experience, calculated from the completion of the Bachelor's degree, not from the possession of a Skills Certificate.
- i) Information Technology Network and Database has the ability to make designs and techniques related to communication network infrastructure and databases, has an analytical mindset with the ability to provide technical implementation support regarding grand design concepts prepared by users in solving communication network and database problems, able to give recommendations for network solutions the best communication and database to solve the problem.

- j) Hardware Technicians have the ability to make designs and technical related to EEWS prototype hardware infrastructure, have an analytical mindset with the ability to provide technical implementation support regarding grand design concepts prepared by users on EEWS prototype hardware, so as to be able to provide recommendations for the best hardware solutions for solving the problem in running the EEWS prototype.
- k) Software Programming has the ability to make designs and techniques related to EEWS prototype software infrastructure, has an analytical mindset with the ability to provide technical implementation support regarding grand design concepts prepared by users on EEWS prototype software, so as to be able to provide recommendations for the best software solutions for solved the problem in running the EEWS prototype.
- l) The web administrator has the ability to design and technically related to the EEWS web prototype infrastructure, has an analytical mindset to provide technical implementation support regarding the grand design concept prepared by the user in the EEWS web prototype, is able to provide recommendations for the best solutions to solve problems in the running of the EEWS web prototype.
- m) Graphic Designers have the ability to make graphic designs related to updating display needs on the web, equipment monitoring displays, workspaces, illustrations of how the EEWS prototype system works, etc. as well as providing technical implementation support regarding the grand design concept prepared by the user for the EEWS prototype.
- n) Linguist has translation of the required documents for the EEWS development prototype activity and good verbal communication (English and Indonesian).

## **5. Results**

System Management Specialist Construction of the Earthquake Early Warning

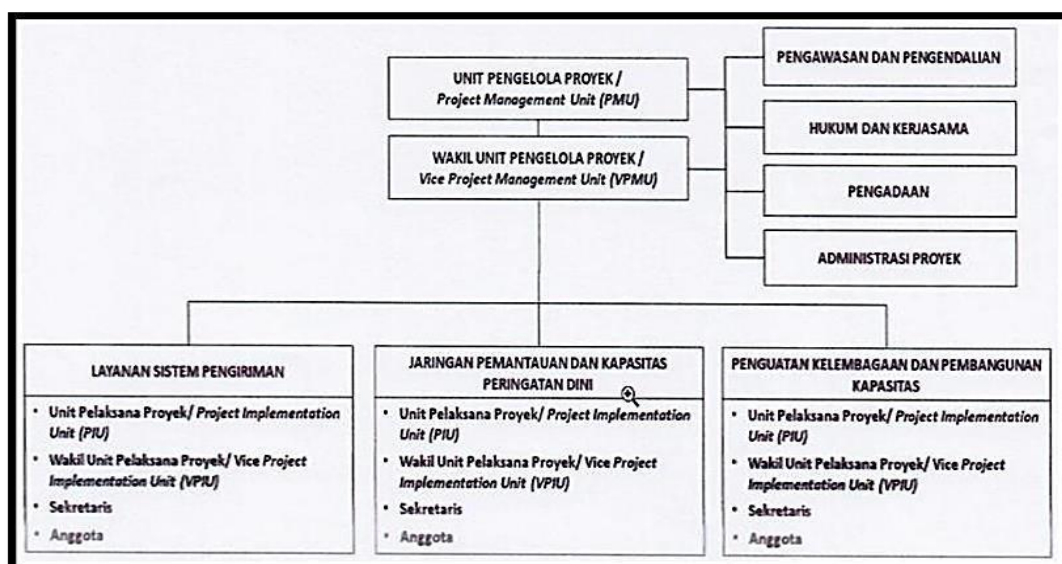
System prototype is expected to provide work results in the form of:

- a) Infrastructure design and inventory of needs for Earthquake Early Warning System Prototype Development;

- b) Reports on the results of the implementation of activities on a regular basis, post-activity reports in the form of final activity reports and/or other similar reports;
- c) Monitoring document and implementation strategy of the Earthquake Early Warning System Prototype Development activity with clear and implementable directions and inputs;
- d) Other documents including presentations, meeting notes and review of documents related to the Earthquake Early Warning System Prototype Development;
- e) Input for procurement documents for Earthquake Early Warning System Prototype Development Activities – Terms of Reference and relevant tender documents as part of preparation with technical input from stakeholders and other relevant technical specialists.

## 6. Organizational Structure

Team Leader of Development System Management of the Earthquake Early Warning System will work under the following organizational structure and report the results of his work to the VPMU through the Head of the Center of Engineering Seismology, Potential Geophysics, and Time Mark.











The attention of interested Consulting Firm is drawn to Section III, paragraphs, 3.14, 3.16, and 3.17 of the World Bank's "Procurement Regulations for IPF Borrowers" July 2016, revised November 2017 and August 2018 ("Procurement Regulations"), setting forth the World Bank's policy on conflict of interest.

The Consulting Firm will be selected in accordance with the Consultants Qualifications Selection (CQS) method described in the Procurement Regulations.

Further information can be obtained at the address below during office hours at 09.00 to 16.00 hours.

Expressions of interest (include supporting documents) must be delivered in a written form to the address below (by e-mail) by 05 July, 2023 at 04 PM at local time at the latest.

The Meteorology, Climatology and Geophysics Agency  
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