



ECOWAS COMMISSION  
COMMISSION DE LA CEDEAO  
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## **TERMS OF REFERENCE**

### **INDIVIDUAL CONSULTANCY FOR THE DEVELOPMENT OF A WEB-BASED EMERGENCY MANAGEMENT SYSTEM (WBEMS) FOR ECOWAS**

## **1. BACKGROUND INFORMATION**

### **1.1. Contracting authority**

The Economic Community of West African States (ECOWAS) Directorate of Humanitarian and Social Affairs (DHSA).

### **1.2. Current situation in the sector**

The Directorate of Humanitarian and Social Affairs (DHSA) was established under the ECOWAS Treaty, recognizing the pressing humanitarian and social needs of the West African region. Its mandate, as outlined in the ECOWAS Revised Treaty, is to contribute to regional integration by formulating and implementing policies, strategies, and programs that address both the practical and strategic needs of the West African people. This mandate aligns with ECOWAS Vision 2050, aiming to foster a more integrated, stable, and prosperous region.

Over the past 15 years, the DHSA has been instrumental in supporting member states facing humanitarian challenges. The Directorate has provided relief materials and trained citizens to act as first responders during crises. Additionally, it has developed programs to integrate Disaster Risk Reduction into sustainable development planning across West Africa. These efforts have been crucial in building resilience and enhancing the region's capacity to respond to disasters.

Despite these successes, the DHSA faces significant challenges in documenting and sharing impact stories and lessons learned. The current manual processes for tracking key performance and delivery metrics are inefficient, hindering effective data collection and analysis. This lack of digital mechanisms has resulted in infrequent data collection, limiting the ability to make informed decisions and adapt strategies based on real-time insights.

ECOWAS plays a pivotal role in addressing humanitarian crises and managing disaster risks within the region. As the frequency and complexity of emergencies increase, the need for robust response mechanisms becomes ever more critical. A well-designed monitoring and evaluation (M&E) system is essential for ECOWAS to support its humanitarian efforts efficiently and strategically. Such a system would provide evidence-based data, enhance decision-making, ensure accountability, and foster adaptive management practices.

Currently, ECOWAS employs traditional monitoring and evaluation methods that have proven adequate over time; however, they face challenges in capturing the complexities of humanitarian response management across the region. Project data—including proposals, budgets, reports, assessments and outcome measurements—are managed through fragmented and largely paper-based systems. This approach creates significant delays in data collection, limits real-time analysis, hampers collaboration, and ultimately impedes evidence-based decision-making that could improve humanitarian outcomes.

The comprehensive M&E planning process conducted in February 2024 identified critical gaps in data flow, standardization of reporting, and monitoring frameworks. The current system is plagued by delays in reporting, inconsistent data quality, limited access to information, and challenges in deriving fast and meaningful insights from collected data. These limitations significantly reduce ECOWAS's ability to respond effectively to emerging crises and systematically learn from previous interventions.

A web-based M&E system, designed with scalability, security, and usability in mind, would empower ECOWAS to respond swiftly and effectively to humanitarian crises. By leveraging technology, the system would offer real-time access to comprehensive datasets, interactive dashboards, and customizable reporting tools. This would enable stakeholders at all levels to track progress, identify emerging trends, and adjust strategies in response to evolving challenges and opportunities.

## **2. OBJECTIVES & EXPECTED OUTPUTS**

### **2.1. Overall objective**

To develop a comprehensive Web-Based Monitoring and Evaluation Information System that enhances the efficiency and effectiveness of ECOWAS's humanitarian and disaster risk management initiatives.

### **2.2. Specific objective(s)**

The specific objectives of the consultancy are as follows:

1. **Specific Objective 1:** Design and develop a user-friendly system for real-time data collection, storage, and analysis divided into four core modules: Response Plan Module, Project Submission Module, Response Monitoring Module, and Response Insight Module, as identified in the ECOWAS concept documentation.
2. **Specific Objective 2:** Implement tools for generating customizable reports and visualizations to support evidence-based decision-making by digitalizing and standardizing all data collection tools, reporting templates, and monitoring frameworks in alignment with the M&E Plan developed in February 2024.
3. **Specific objective 3:** Provide a platform for collaborative workflows and knowledge sharing among ECOWAS member states and partners.

### **2.3. Expected Outputs to be Achieved by the Consultant**

The expected outputs of this consultancy are as follows:

**Outcome 1:** Streamlined project submission and approval processes.

**Output 1.1:** Functional online proposal and budget submission module with standardized templates.

**Output 1.2:** Automated workflow for project review, feedback, and approval processes.

**Output 1.3:** Digital repository for all project documentation and reference materials.

**Outcome 2:** Enhanced real-time data collection, management, reporting, analytics, and stakeholder collaboration.

**Output 2.1:** Detailed plan outlining the methodology and timeline for system development.

**Output 2.2:** A fully operational web-based M&E system with integrated data collection, reporting, and analytics features.

**Output 2.3:** Digital data collection tools for weekly, monthly, quarterly, and annual reporting.

**Output 2.4:** Automated notification system for reporting deadlines and compliance tracking.

**Outcome 3:** Strengthened institutional capacity for system utilization.

**Output 3.1:** Comprehensive user documentation, including administration and end-user manuals.

**Output 3.2:** Comprehensive training materials and capacity-building workshops for ECOWAS staff and nominated representatives of member states.

**Output 3.3:** Technical support framework for ongoing system maintenance and enhancement.

### **3. ASSUMPTIONS & RISKS**

#### **3.1. Assumptions underlying the project**

- Strong commitment from ECOWAS leadership to digital transformation in humanitarian coordination.
- Stable political environment across ECOWAS member states.
- Adequate IT infrastructure and internet connectivity at ECOWAS headquarters and key operational centres.
- Timely procurement of necessary hardware and software.
- Willingness of member states' focal points to adopt new digital reporting tools.
- Effective collaboration with ECOWAS departments and external stakeholders.
- Availability of technical resources for ongoing system maintenance after deployment.
- Existing data and reporting templates can be effectively digitalized and standardized.
- Stakeholder commitment to providing timely feedback during the development process.

#### **3.2. Risks**

- Potential delays due to unforeseen technical challenges.
- Potential delays in procurement processes affecting timely development and deployment.
- Resistance to change from staff accustomed to traditional reporting methods.
- Variability in stakeholder engagement and data availability.
- Unstable internet connectivity in remote operational areas challenging real-time data collection.

- Political instability in certain member states potentially disrupting implementation.
- Cybersecurity threats compromising sensitive humanitarian data.
- Technical challenges in integrating with existing systems and databases.
- Ensuring data security and privacy in compliance with regional regulations.
- Varying levels of digital literacy across users may impact adoption rates.

## **4. SCOPE OF THE WORK**

### **4.1. General**

#### **Description of the assignment**

The individual consultant will be responsible for the design, development, and implementation of a web-based M&E system tailored to ECOWAS's needs, digitalizing the entire humanitarian project cycle for all kinds of response initiatives. This system will transform how information is managed from data collection, data management, data analysis, data utilization, and data reporting for humanitarian planning, implementation, monitoring and evaluation.

The consultant will follow a systematic approach including requirements analysis, system design, development, testing, deployment, and capacity building to ensure the platform meets user needs and organizational objectives. The system must align with the M&E frameworks, logical frameworks, and reporting templates already developed by ECOWAS.

### **4.2. Specific work**

The Individual Consultant will be responsible for the following tasks:

#### **Task 1: Needs Assessment**

- Identify and engage key stakeholders, including ECOWAS departments, member states, and partner organizations, to gather input and ensure comprehensive needs assessment.
- Evaluate existing data collection methods and tools used by stakeholders to identify gaps and areas for improvement.
- Conduct workshops and interviews to gather detailed requirements and expectations from end-users and stakeholders.
- Compile and document the findings from the needs assessment, including specific requirements, challenges, and recommendations for system design.

#### **Task 2: System Design**

- Create detailed architecture blueprints that outline the system components, their interactions, and integration points with existing systems.
- Design a robust and scalable database schema to support efficient data storage, retrieval, and analysis.

- Develop wireframes and prototypes for the user interface, focusing on usability, accessibility, and user experience.
- Establish a security framework that includes data encryption, access controls, and compliance with relevant data protection regulations.

### **Task 3: Development**

- Implement the backend infrastructure, including server setup, API development, and database integration.
- Develop the frontend user interfaces based on the approved designs, ensuring responsiveness and compatibility across devices.
- Integrate the new system with existing ECOWAS systems and third-party services to ensure seamless data exchange and interoperability.
- Implement scalability features and optimize system performance to handle increasing data volumes and user traffic.

### **Task 4: Testing and Validation**

- Conduct unit testing of individual components and integration testing to ensure that all system components work together as intended.
- Engage end-users in testing the system to validate its functionality, usability, and alignment with their requirements.
- Perform load and stress testing to assess the system's performance under various conditions and identify potential bottlenecks.
- Conduct thorough testing to ensure data integrity, security, and compliance with data protection standards.

### **Task 5: Training and Rollout**

- Develop comprehensive training materials, including user manuals, tutorials, and FAQs, to support end-user training.
- Conduct training sessions for ECOWAS staff and stakeholders, focusing on system features, usage, and best practices.
- Provide detailed documentation and establish support resources, such as helpdesk services, to assist user's post-rollout.
- Establish a feedback mechanism to gather user feedback post-rollout and implement improvements based on user input and system performance.

## **5. LOGISTICS AND TIMING**

### **5.1. Location**

The assignment will be primarily home-based, with essential travel to ECOWAS headquarters in Abuja, Nigeria, for key meetings, workshops, user testing, and training sessions. Additional travel to select member states may be required for user needs assessment and capacity-building activities.

## **5.2. Start date & period of implementation of tasks**

The intended start date is the 1st of June 2025, with a total implementation period of six (6) months (180 working days). The project timeline includes:

- Month 1: Task 1: Needs Assessment
- Month 2: Task 2: System Design
- Month 3-4: Task 3: Development
- Month 5: Task 4: Testing and Validation
- Month 6: Task 5: Training and Rollout

## **6. CONSULTANT REQUIREMENTS**

### **6.1. Qualifications and skills**

- Advanced degree in Information Technology, Computer Science, Data Science and Business Analytics, Artificial Intelligence Engineering, or a related field.
- Proficiency in web development technologies, data science implementation, database management, machine learning integration, and data visualization tools.
- Strong analytical skills to interpret data and provide actionable insights for decision-making.
- Experience with project management methodologies and tools to ensure timely delivery and quality of project outcomes.
- Excellent written and verbal communication skills to effectively engage with stakeholders and produce clear, concise reports.
- Fluency in English; knowledge of French or Portuguese is an asset.

### **6.2. General professional experience**

- At least 8 years of experience in developing and implementing M&E systems, with a strong background in information management, data management and analytics.
- Extensive experience in managing and analyzing data, including the development of data collection tools and reporting mechanisms.
- Strong technical skills in web development, database management, and data visualization tools.
- Demonstrated ability to manage complex projects independently, including planning, execution, and delivery within specified timelines.
- Experience in collaborating with diverse stakeholders, including government agencies, UN, NGOs, and international organizations.
- Proven ability to develop training materials and conduct capacity-building workshops to ensure effective use of M&E systems by end-users.

- Proven ability to integrate innovative technologies and best practices into M&E systems to enhance efficiency and effectiveness.
- Familiarity with the humanitarian and social context of West Africa, including an understanding of regional challenges and priorities.
- Experience in formulating policies and strategies that align with organizational goals and regional frameworks.
- Experience working across various sectors such as coordination, education, protection, and disaster management to ensure a holistic approach to projects.
- Demonstrated ability to adapt to changing project requirements and solve complex problems effectively.

## 7. REPORTS

### 7.1. Reporting requirements

The consultant is required to submit the following reports throughout the project lifecycle to ensure transparency, accountability, and effective communication with stakeholders:

#### 1. Inception Report

- **Submission Timeline:** Within two weeks of the project start date.
- **Content:** This report should provide a detailed overview of the project's objectives, methodology, and timeline. It should include initial findings, a work plan, and any anticipated challenges or risks. The report should also outline the consultant's approach to stakeholder engagement and data collection.
- **Purpose:** To establish a clear understanding of the project scope and expectations and to serve as a reference point for subsequent project activities.

#### 2. Progress Reports

- **Submission Timeline:** Monthly updates throughout the project duration.
- **Content:** Each progress report should provide a detailed account of the project's status, including achievements, milestones reached, and any issues encountered. The report should also highlight any deviations from the original project plan and propose corrective actions if necessary.
- **Purpose:** To keep stakeholders informed of the project's progress, facilitate timely decision-making, and ensure that the project remains on track to meet its objectives.

#### 3. Final Report

- **Submission Timeline:** Upon completion of the project.
- **Content:** The final report should be a comprehensive document detailing the system features, implementation process, and outcomes. It should

include a detailed analysis of the system's functionality, performance metrics, and user feedback. Additionally, the report should provide recommendations for future enhancements and sustainability of the system.

- **Purpose:** To document the project's achievements, provide a detailed account of the implementation process, and offer insights for future improvements and scalability.

- **7.2. Submission and approval of reports**

The reports referred to above must be submitted to the project manager identified in the contract. The project manager is responsible for approving the reports.