Eastern Africa Farmers Federation

Expression of Interest

(by the consulting firm in response to the REOI issued by the procuring entity)

for

Monitoring & Evaluation Management Information System (MIS)

Ref No: ***GASFP/2.3/M&E/22***

Issue Date: 22/12/21

ANNEX 1

PRELIMINARY TERMS OF REFERENCE

Consulting Services for Development of an M&E Management Information System (MIS)

1. Client

The client for this assignment is the Eastern Africa Farmers Federation (EAFF).

2. Country background

Since the outbreak of COVID-19 and the emergency of deadly variants of the disease has made it very to carry out field activities of the projects, which includes M&E activities e.g. progress monitoring, which can't be executed adequately due to the imposed measures. Fields assistants, country out-grower managers and program officers can't collect the relevant project implementation due to the restrictions of movement. Lack of delivery of the extension services due to these restriction of movement continue to pose huge threat to the crop production and productivity. It has been very difficult to monitor and manage field assistant and field enumerators due to lack of frequent visits to the field by the MMI project management team from the Head Office. In Uganda and Kenya, where marketing of the previous season's produce, it became very difficult to mobilize farmers for aggregation, carry out produce **quality control** at the household and group levels, which is a critical process done before linking farmers with buyers. It has been difficult for the EAFF staff and partners to hold farmers field meetings, since meetings are banned in all the project areas to control the spread of COVID-19. Additionally, B2B meetings between farmers and the private sector actors have been curtailed due to the pandemic. Moreover, it has been difficult to carry out proper farmer mobilization for the input distribution. Whereas we have done risk mitigation through agriculture insurance cover, our farmers might not be indemnified in-case they are hit by catastrophes such as drought ,floods, lodging of crops because of strong winds, hailstorms and frost due to their failure to conduct timely insurance incident reporting.

3. Background on project

Portal backend for user management and Data processing

Portal front-end that provides a Graphical user interface for user interaction

Android app that is used for data collection by the catchment area managers and transmit it to the cloud database

4. Background of the assignment

User creation and management-This enables the creation of the users and assigning the roles

Data submission, which enables the capture and submission of the field data by the catchment area managers via the android app

Report Generation, This is for the pulling resultants of the portal backend operations and consolidate as a report for different users

GIS mapping, for grouping farms to enable reporting on the crops by the catchment managers and enable project managers and field officers to report on farms with location grouping.

Database, designing a database to hold the data on the portal backend.

5. Overall objectives

-To enable project managers successfully oversee the supervision of their projects during the implementation
-To enable the organization get value for money on the resources that are set to implement given projects.
-To give surety to the organization on project progress as per set plan based data analysis report.
- To enable project managers to oversee end to end project supervision during implementation.

6. Objectives of the assignment

-To deepen the quality assurance, control system, archiving as well as the dissemination process of the data collected through the creation of more detailed dashboards.
- To facilitate a seamless and real time collection of data from the source to enable efficient decision making in appropriate time.
-To enable detailed recording of data on every project processes for analysis and monitoring.

7. Scope of work

- Automation of the processes involved in monitoring and evaluating projects within the organization. The automation will involve the development of mobile enabled applications for data collection, establishment of the cloud-based database, and the development of a system to meet the current ICT standards; and development of an interface for integrating the database into the Big Data System.
- Expand the process of monitoring and evaluation for projects being undertaken by the organization.
- Expand the supervision of projects to geographically mapped sites that capture individual farms.
- Expand the data capture to include the following:
    - Output crop yield data (projected crop yields, actual yields, comparison with farm inputs);
    - Farm input data (quantities of seeds, fertilizers, agro-chemicals and animal feeds);
    - Collect reports on crop status in different stages of the project from individual farms (including extension services)
- Provide GIS mapping for all sites within projects
- . Further automate/standardize the data collection, analysis and dissemination process
- Develop administrator manual and market enumerators training manual
- Train users about their interaction with the MIS system data analytics dashboards that will allow data visualization tools in charts, graphs and map overlays

- Provide support to the MIS during the project implementation period.

8. Capacity building and transfer of knowledge

- Train users about their interaction with the MIS system data analytics dashboards that will allow data visualization tools in charts, graphs and map overlays
- Provide support to the MIS during the project implementation period.
- Develop administrator manual and market enumerators training manual

9. Reports and schedule of deliverables

Portal Backend.
1.Portal user management.
(a).Super Administrators.
-User creation
-Creation of crops
-Creation of Farm
-Creation of catchment areas
-Creation of sites
-Creation of farm inputs
-Creation of field officers
-Creation of report type
-Publish or unpublish data
-Manage field officers
-Creation of new farmer
-Create a store
-Management of farmers within a catchment area
-Management of catchment area managers
-Management project managers
-Cropyield management
-Harvest management
-Meeting creation
-Project creation
-Assigning field officers to projects
-Assigning a farm to a catchment area

(b).Administrators
-Project creation
-Creation of report type
-Create new crops
-Manage field officers
-Publish or unpublish data but cannot delete data
-Management of loans
-Cropyield unit cost setting
-Creation and management of farm inputs
-Meeting creation.
-Assigning field officers to projects

-Assigning a farm to a catchment area
-Assigning farm Inputs to farm

(c)Catchment Area Managers

-Creation and management of a farm
-Creation and management of stores.
-Creation of a farmer
-Management of farmers within a catchment area
-CropYield management.
-Loan management
-Entering expected harvest date
-Assigning farm inputs to a farm

(d).Field Officers

-Creation of a new farmer
-Publish or unpublish data
-manage data submitted by catchment area managers
-Management of farmers within a site.
-Assigns catchment area managers to catchment areas.

(e)Project Managers.

-Assigning field officers to projects.
-Management for project budget
-Publish and unpublish data
-Management of crops
-Management of farm input
-Management of stores
-Management of field officers
-Management of loans

2.Elements of the Backend.

Listing of
(a).Farm Inputs
(b).Farmer
(c). Crop
(d).Users
(e).Sites
(f).Projects
(g).Catchment area
(h).Farm
(i).Outputs
(j).Stores
(k).Report
(l).Field officer
(m).Project manager
(n).Project Loan
(m).Project meeting
(k).Project Farm In puts.
-Name
-DOB
-Gender
-Phone No
-Primary phone no
-Secondary phone no

-ID.No

4.Site management and setup

-Name
- Longitude
-latitude
-county
-Radius(KM sq)

6.Catchment area management and setup

- Name
- Longitude
-latitude
- radius
-county
-Assigned to
-Assigning a farmer to catchment area

7.Project Management and setup.

-Name
- Budget
-Start date
-end start
-status
-Reference to farms involved
-Loan

8.Field officer management and setup.

-Name
-Phone No
-Gender
-Username
-Email
-password

9.Project Loan management and setup.

-assigned project
-approved by (project manager)
-amount

10. Project Meeting management and setup

- Assigned project
-Name
- type (Training,Extension service,Harvest)
- start date
-End Date
-documents (any document such as minutes)
-videos
-photos

11.Farm inputs Management and setup.

-Name
-Type(Fertilizer,Agrochemicals,Seeds,Insurance)

12.Farm Management and setup

-Size(Acres)
-County
-Owned by(Farmer)

13.Store management and setup.

-Name
-size(Volume in Msq)
-County

14.Project Farm Inputs setup and management

-Assigned project
-Assigned farm inputs
-Total Cost
-Quantity

15.Crop-Yield

-Name
-Volume(Tones)
-Crop
-Expected -yield.
-Expected harvest date

16.Crop management and setup.

-Name
-Hs Code.
-Variety
-Image

17.Farm Farm-input setup and management.

-Assigned project
-Assigned farm inputs
-Total Cost
-Quantity

Data Collection(Catchment area manager and Field officers).

Elements of data captured and submitted

(a).Meeting submission

-Assigned meeting.
-type
-location.
-photos.
-documents.
-videos.
-submission date.
-created by.

(b).Report Submission

- type(extension services,training)
- photos
-documents
-video
-submission date
-created by

(c).Crop state Submission

-Type(Growth,Health).
-Submitted by
-Documents
-Photos
-Videos

-Submission date

Elements of front-end

1.Project manager

-List of the individual projects headed by the Project manager (include -%age project completion)
-List of sites per projects(Add the Heads)
-List of catchment areas as per the project (Add the Heads)
-List of meetings per project
-List of trainings categorized per project.
-List of individual farms per project with particular interest on crop states,input distribution success

2.Field officer

-A list of catchment areas within a site with their heads.
-A list of individual farms within a site (add the farmers per the farms, Crop state, input distribution)
-A list of trainings within a site.
-A list of meetings within a site.
-%age project completion per catchment area

3.Catchment area manager

-A list of farms within the catchment area (include farmers, crop state, input distribution too) .
-A list of trainings within the catchment area
-A list of meetings within a catchment area
-%age project completion

10. Consultant's qualifications and experience

Key expert 1: Team leader

Qualifications and skills

Education

-Bachelor in Software engineering

Skills

-Software design and architecture

-Database design

-Graphical user interface design

-Data structures and Algorithms

-Embeded Systems

-Firebase

Software engineering language competencies

-JavaScript

-PHP

-SQL queries

-Python

-Java

-Kotlin

General professional experience

-Four years in Software architecture and design

-Five years in Software Development

-Five years in Data Analysis

Specific professional experience

Key expert 2:

Qualifications and skills

Education

-Bachelor in Software engineering

Skills

-Software design and architecture

-Database design

-Graphical user interface design

-Data structures and Algorithms

-Embeded Systems

-Firebase

Software engineering language competencies

-JavaScript

-PHP

-SQL queries

-Python

-Java

-Kotlin

General professional experience

- Three years Software architecture and design

- Three years Software Development

-Three years in Data Analysis

Specific professional experience

Five years in design and development of Management information system(MIS) for NGOs

Specific professional experience

Five years in design and development of Management information system(MIS) for NGOs

11. Location and period of execution

Location/City

-Nairobi

Period of Execution

-8 weeks

12. Project coordination

-EAFF M&E officer

13. Services and facilities to be provided by client

-Laptop

-Hosting fee

14. Services and facilities to be provided by the consultant

-Training

-Project reports

-Functional M&E MIS

ANNEX 2

Qualification and Evaluation Criteria

Item	Criteria	Points
For specific experience, evidence shall include successful experience in the execution of **at least 2 projects** of a similar nature and scope of works during the **last 10 years**.		
A.	**General experience**	**30**
i	General experience: Proficiency in software design and architecture and database design	10

B.	**Specific experience**	**70**
ii	Experience in graphical user interface design and data structures and Algorithms	15
iii	Experience in embeded Systems and firebases	40
iv	Competencies in Software engineering language such as JavaScript, PHP, SQL queries, Python, Java and Kotlin	15
v	Understand Artificial intelligence, Machine learning, Violin data for data analysis and training & Generating deployment plan	35
	Minimum points required to pass	**70 points**