

Terms of Reference for the Design and Development of the National Youth Development Council for Farming, Environment and Climate Improvement Project (FECIP) - Management Information System



February 2020

1.0. BACKGROUND

1.1. About this document

This document specifies the terms of reference for an M&E Management Information System (MIS) developer for the National Youth Development Council (NYDC). These terms of reference are to procure the services of an expert to develop the MIS for effective data management, analysis and reporting under the context of Farming, Environment and Climate Improvement Project (FECIP). The expert is to be referred to as “Management Information System Developer” within this document.

1.2. Context

Carbon Energy Partners (CEP), project initiators with help from the Government of Zambia (GRZ) under Ministry of Youth, Sports and Child Development are together supporting the Farming Environment and Climate Improvement Project (FECIP) supervised by OATS Consultancy. The lead execution organization for the program is NYDC, which will work in close collaboration with the Ministry of Choice to implement the Project. CEPs will fund, secure and manage the usage of the program in close collaboration with GRZ. The Farming Environment and Climate Improvement Project (FECIP) will expand on past ventures, as SAPP's, accomplishments, and will add to: the improvement of the entrance of Farmers to instruction and data substance important to improve their practices, strategies and basic leadership; streamline the procedures of awards and charge's installment on projects to help Farmers; and improve the limit of NYDC to gather, procedure and present information and data about natural effects.

1.3. The Project

The Farming Environment and Climate Improvement Project (FECIP) will contribute to: the improvement of the access of Farmers to education and information contents necessary to improve their practices, procedures and decision making; streamline the processes of grants and fee's payment on programs to support Farmers; and improve the capacity of NYDC to collect, process and present data and information about environmental impacts.

Table1: Brief Description of the Project

Development Objective	<ol style="list-style-type: none">1. Provide access to information to and about Farmers2. Reduce cost and facilitate access to GRZ services3. Improve NYDC Efficiency4. Use Digital Solutions to Enhance Productivity
Outcomes	<ol style="list-style-type: none">1. Creating methodologies to evaluate and monitor the work processed via web and mobile solutions and platforms which registered the farmers and nationals willing to farm or help farmers and their associated lands and crops, announcing programs and procedures for Grants.2. Evaluating their numbers through a uniform data collected with the support of a back office to validate and evaluate applications, manage documentation associated with the processes, release grants, register actions outcomes and inspections, control payments and collections and enable

	<p>adequate reporting and monitoring and evaluation of such processes.</p> <ol style="list-style-type: none"> 3. Conduct KPIs for each work done and programmed under the other auspices and putting together a fact factor evaluation tool to monitor the performances of the designed methods, to help in the case management during evaluation, after monitoring and pro management of the project. 4. Provide Support for the solution for 3 years.
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1.4. Project Institutional Arrangements

The National Youth Development Council (NYDC) is responsible for overall coordination and implementation of the project through the Department of Planning and Information. NYDC will set up a Project Implementation Unit (PIU) to assist with the implementation and management of the project and act as Steering Committee.

2.0. THE ASSIGNMENT

The purpose of assignment is to develop and launch a Monitoring and Evaluation Management Information System (MIS) for the FECIP Project. The primary function of the M&E will be to track and manage project activities in a manner that provides the right information to the right set of people at the right time to enable adaptive project management and decision support. In this regard, the M&E MIS will at a minimum have;

Centralised Template Management: The system should provide for the upload of planning and reporting templates for access to all project staff, statutory Bodies, Consultants and other relevant stakeholders.

Monitoring and Evaluation: Should provide for the upload of Monitoring frameworks to link organisational activities to the organisational strategic objectives as well as upload of risk registers for tracking and monitor progress on Key Performance Indicators (KPIs).

Integration and interface: The system should have the capacity to integrate and interface with back end financial systems, Microsoft Outlook, different formats of databases and the project website.

Offline Access: Should be possible to use offline through the possibility to download the forms and upload them when the system is online, enabling the field staff to input data even with no connectivity.

Repository: the system or application data specifically on farmers, SMEs and other beneficiaries should be in a centralised data base to ensure security. It should also provide for tracking, editing and sharing documents.

Approval system: Provide for a tiered approval system of documents

Geography Indicators Mapping: Provide for Geo-mapped information (association of information with areas on a map, not a GIS system) to be incorporated to provide an additional perspective to the organizational data such as location for Producer Organisations, Productive Alliances and SMEs.

Aggregation: should provide for the aggregation of data across core work, matching grants and Business Linkage Fund, regions, services and strategic objectives.

Dashboard: Provide a summarised dashboard with the traffic lights system or graphics highlighting the KPIs such as number of beneficiaries reached, disbursed funds among other indicators.

Validation: Should have validation business rules, this way the M&E system will feature spot checks, evaluations, and gather accurate data on the indicators.

3.0. PROPOSED APPROACH AND TASKS

3.1. Conduct Initial Inception Report

The purpose for this will be to;

1. Improve familiarity with all project activities through project documentation, field visits, and discussions with stakeholders.
2. Determine detailed user requirements for the M&E MIS based on the Project requirements at various levels – community, district, provincial and national and related different tiers of management including determination of:
 - i. M&E stakeholders (all who have a role in data acquisition, processing, reporting, or use/decision making);
 - ii. Detailed project management and indicator tracking for the project;
 - iii. Various types of reporting content, formats, and frequency;
 - iv. Flow requirements (into, within, and out of the M&E);
 - v. Possibility of integrating the Project's database with existing information system in NYDC for sustainability during and post project life and;
 - vi. Basic additional hardware/software/dataset requirements
3. Detail design recommendations in a Systems Requirement for Procurement of M&E-related hardware, software and communication: (e.g. hardware specifications M&E related hardware, software, at various NYDC offices).

The design should be based on close interaction with the Client and be flexible to incorporate changes in activities or future phases of the Project including Post Project Life.

3.2. Develop and Launch NYDC M&E MIS

The primary activities of the Consultant in this regard will include:

1. Development of a Web-Based M&E MIS, that will need to be accessed both online and offline mode. The Database needs to be structured intelligently and appropriately to ensure ease of entry, quality management, access control, processing, visualization, and reporting.
2. Development of an M&E MIS that will ensure that the parameters tracked are captured, conveyed, stored, processed, visualized, and reported in an adequate and timely manner to support project status review and adaptive decision making. This will include the development of appropriate forms/ledgers and business processes (e.g. process of entering and using data from various offices – including at appropriate intervals, conversion of paper-based to electronic data, integrating into a centralized database at headquarters-level, data quality management, etc.) to capture relevant administrative/ institutional, financial, technical/physical, procurement, environmental, and social data from various sources.
3. The M&E will be tested to the satisfactory of the client and the test data will be provided by the client.

4. Launch the Management Information System: At this stage the M&E will have all features as outlined in these ToRs including recommendations from the Inception Report.

3.3. Train staff and stakeholders on efficient and effective use of the Management Information System

The primary activities of the Consultant in this regard will include:

1. **Institutional Arrangements:** The Consultant will recommend appropriate staff/positions in NYDC institutional structure that can effectively manage the various M&E-related tasks – such as data entry, computerization, validation, processing, reporting, and use, as well as effective systems administration, security, updating, and sustainability.
2. **Documentation and Training:** Produce system documentation, user manuals/ guide for the efficient and effective use and maintenance of the M&E MIS as well as allow for future system upgrade and inclusion of features and datasets. The Consultant will develop electronic and hardcopy documentation for all aspects of the M&E developed and provide appropriate training to relevant M&E stakeholders. This will include on-the-job support and handholding (including in-person, telephone and on-line support), as well as formal training workshop.
3. **Provide an M&E development and launch completion report.**

4.0. CONSULTANCY DELIVERABLES

The following are the deliverables expected from the M&E development assignment:

1. Technical assessment report with recommendations and action plan developed.
2. Conceptual model developed for NYDC on-line Information Management System.
3. Presentation of layout and design of system and incorporation of technical suggestions.
4. Database underlying forms, sheets and tables developed for data entry and access.
5. Final model of web-based Management Information System with all features as outlined above including mapping features.
6. Migration of all existing data in the new systems and testing including validation.
7. Staff training session on management of systems and backstopping plans developed.
8. Web based M&E MIS with mapping Administrator and Editor Guidelines available and launched.
9. System documentation.
10. System Backup plan.
11. Warrant and Post system support.

5.0. M&E - Hosting

1. Supplier must provide a host solution supported on Windows Azure to install the developed systems, during the development phase and until the project go live.
2. Host solution must at least meet the following requirements:
 - Safeguarding storage information with retention in force for the contract period, with at least daily backups of the information;
 - Time for system replacement (Maximum Up to 24 hours);
 - Use of Microsoft SQL Server;
 - Production Environment where there must be at least two machines with the application layer and the other with the Database.

- The infrastructure must ensure minimum security requirements, including authorization / authentication;

6.0. SYSTEM OWNERSHIP

National Youth Development Council through FECIP is the ultimate owner of the system and therefore all system documentation, data and source code should be handed over with M&E. All works under this contract will remain confidential.

7.0. QUALIFICATIONS, REQUIRED SKILLS AND EXPERIENCE OF THE CONSULTANT (S)

7.1. Qualifications

The Lead Consultant must be a holder of a first and master's degree in Information Systems, Computer Science, Software Engineering or equivalent from a recognized University.

7.2. Required Experience and Skills

1. At least 5 years' experience in developing web-based databases that include using SQL Server
2. The Lead Consultant (or a technical team member) should have at least 5 years of experience in developing Monitoring and Evaluation Systems
3. The project development team should have relevant qualifications and experience in change management and systems testing
4. Proficiency in at least one structured programming language such as Java, CSS, HTML and C#
5. Adequate knowledge of relational database systems, Object Oriented Programming and web application development
6. Must have working knowledge in open source technologies such as Apache, PHP, AJAX, and JavaScript/JQuery.
7. Experience in building/developing end-user reports using standard reporting tools such as Crystal Reports, Jasper, SQL Server Reporting Services and or Pentaho
8. Must be a registered consulting member of said ministry's Youth Led Enterprises or Youth in Agriculture segments with a Master's Degree in any related program or Economics. The consultancy membership must be at least two years old and must have been updated at least two weeks before the submission of the proposal

7.3. Additional Experience and Skills

1. A good understanding of the evaluation and monitoring systems to manage application and disbursement of grants and subsidies and fee payment.
2. Experience in running successful training workshops and working in close partnership with all stakeholders involved.
3. Must be proactive and innovative keeping abreast with latest technological advancement.
4. Must have ability to work independently with minimal supervision.

5. Ability to work in a complex environment with multiple tasks, short deadlines and intense pressure to perform.

7.4. A Deputy Local M & E Supervisor

1. A good understanding of the Ministry of Youth, Sport and Child Development standards of quality and services
 2. Must be a registered consulting member of said ministry's Youth Led Enterprises or Youth in Agriculture segments with a Master's Degree in any related program or Economics. The consultancy membership must be at least two years old and must have been updated at least two weeks before the submission of the proposal
 3. Must be proactive and coordinately have a level of understanding of different orientations of social economics.
 4. Must have the ability to work with different forms of youth within a certain behavioral dimensions.
- 7.5. The contractor or consulting company must have attained a certificate of accountability on public charter performance from the Ministry of Youth Sports and Child Development through the National Youth Development Council

8.0. TIME FRAME OF THE ASSIGNMENT

The assignment will be a total of 12 months, the first day being the contract signing day.

9.0. REMUNERATION AND OTHER SUPPORT FROM THE PROJECT

Remuneration and other support from the project will form part of the contract negotiations between the client and the consultant (s). However, the expectation is that this contract will be undertaken in a professional manner, ensuring quality and sustainability of the system through and beyond the project life.