



**MINISTRY OF AGRICULTURE AND  
LIVESTOCK DEVELOPMENT**  
**STATE DEPARTMENT FOR CROP**



**NATIONAL AGRICULTURAL VALUE CHAIN DEVELOPMENT PROJECT  
(NAVCDP)**

**TERMS OF REFERENCE**

**(TOR)**

**CONSULTING FOR THE REVIEW & MANAGEMENT OF THE NAVCDP  
MONITORING & EVALUATION MANAGEMENT INFORMATION SYSTEM**

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**Client:**

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# 1 Overall Background

The agriculture sector continues to be central to long term economic growth and sustainable poverty reduction in Kenya, with growth of 4.8 percent in 2020, and employing nearly 8.5 million Kenyans, or 70 percent of rural employment. Between 2005-06 to 2015-16, households with agriculture as the primary source of income accounted for 27.6 percent of overall poverty reduction<sup>1</sup>. Agriculture accounted for up to 65 percent of exports in 2017 when its share of value-added peaked at the highest level among Kenya's regional and Sub-Saharan Africa Lower Middle Income Country peers.

With predominantly smallholder-based agriculture production and its associated challenges, productivity levels for major crops in Kenya are stagnating. Access to credit is a major constraint driving low adoption of quality inputs and technologies. In addition to input and credit challenges, there is need to address inefficient value chains and low levels of value addition. Kenya's agriculture growth faces significant climate change risks that are expected to intensify in the coming decades. Poverty incidence among agriculture households decreases as they start selling produce in markets yet multiple barriers exist to agriculture commercialization for small-holder farmers in Kenya. Under the Agriculture Sector Transformation and Growth Strategy (ASTGS), the authorities have initiated several forward-looking reforms to improve the enabling environment for market driven interventions and greater private sector participation in Kenyan agriculture.

The World Bank-financed National Agricultural and Rural Inclusive Growth Project (NARIGP) and the Kenya Climate Smart Agriculture Project (KCSAP) have laid down a strong foundation for commercialization of agriculture in Kenya. The two projects have mobilized nearly 1.1 million farmers, mostly smallholders into nearly 37,000 Common Interest Groups (CIGs) and nearly 500 farmer producer organizations (FPOs). Over 10,000 community level extension workers are training farmers on 760 Climate Smart Technologies, Innovations and Management Practices (TIMPs) across 21 value chains. These TIMPs have been developed through 51 adaptive research projects with Kenya Agriculture and Livestock Research Organisation (KALRO). Over 10,900 micro-project investments have been funded to build farmer capacity for adopting these TIMPs and more than 450 county level investments have been supported to enhance productivity and market linkages. At mid-term stage, these projects have achieved a 15 percent yield increase in the selected priority agricultural value chains. Nearly 60 percent of project-supported farmers have been linked to 505 FPOs and over 170 FPOs have developed Enterprise Development Plans for leveraging formal finance. Eighty-five (85) public private partnerships have been established to improve service delivery to participating farmers. The twin projects have also laid groundwork for digitally integrated value chains: KALRO has developed a Big Data Platform with a database of nearly 1.1 million farmers with spatial data and producer details being utilized to provide integrated agro-weather and market information to farmers and agricultural institutions. A Disruptive Agriculture Technologies (DAT) platform has seen 26 high potential Ag-tech start-ups signing formal

agreements with 26 counties to support digital solutions in the areas of extension, credit, agro-advisory and market linkages.

## **1.1 Project Background**

The National Agricultural Value Chain Development Project (NACVDP) will build on the foundations in farmer mobilization, productivity enhancement, climate resilience, water management initiatives and digital technologies laid by NARIGP and KCSAP. NAVCDP will mostly work with a subset of these above farmers that are part of the 9 selected value chains and across 33 counties. The project will deepen investments in existing interventions around productivity enhancement, community led farmer extension, water management investments and data driven value chain services. Additionally, the project will introduce intensified infrastructure investments into selected value chains, scale up value addition and market linkages with agribusiness off-takers and small and medium enterprises (SMEs), support Farmer Led Irrigation Development (FLID), enhance access to credit and financial services and develop the proof of concept around Urban Food Systems and peri-urban agriculture in select clusters. The project will leverage community level institutions comprising farmer CIGs, trained Community Driven Development Committees (CDDCs), FPOs and strong implementation capacity at national and county level.

The Project has 4 components namely:

- Component 1: Building Producer capacity for climate resilient stronger value chains.
- Component 2: Climate Smart Value Chain Ecosystem Investments.
- Component 3: Piloting Safer Urban Food Systems.
- Component 4: Project Coordination and Management.

## **2 Objective of the Assignment**

The objective of the consulting services is to review the existing National Agriculture Rural Inclusivity & Growth Project (NARIGP) Management Information System (MIS) and align, upgrade and manage the NAVCDP M&E Management Information System at the different project levels; Community level, County Project Coordination Units, National Project Coordination Unit and at the Project Steering level to allow project managers to oversee and routinely track progress and performance of implementation over the project period in a uniform way across all project components.

The current NARIGP Management Information System was used to track, monitor and evaluate project outputs, outcomes, financials, priority value chain productivity, Disruptive Agricultural Technologies (DAT), Farmer Producer Organizations, Multi-community investments reporting among others. This system however cannot be entirely adopted by NVACDP due to changes in project design, framework, scope and envisaged project interventions.

There is therefore need to review, redesign, upgrade, customize, implement and manage the Management Information System (MIS) to incorporate the new project design and facilitate the efficient processing of management information for effective decision making. The system should incorporate tracking mechanisms to help the management identify loopholes in

operations and make appropriate adjustments; and should be customized to guide project implementation and elaborate the results chain based on the Key Performance Indicators and project implementation operation procedures. The customized web-based Management Information System (MIS) will require defined and interlinked: (i) outcome indicators, intermediate outcome indicators, (ii) outputs, (iii) activities and (iv) inputs.

The MIS will operate along three tiers, National, County and community levels. The primary tier will be implemented at the NPCU and managed by the National Programme Coordinator and the M&E officer while the secondary tier at the CPCU and managed by the County Coordinators, M&E officers and the fiduciary staff of the project. The MIS will enable the project managers and agricultural sector leadership to routinely track the progress and performance of components over time in a uniform way across all the counties.

NAVCDP seeks to recruit a highly qualified firm(s) to support/assist the project team to review, upgrade and manage the integrated NAVCDP Management Information System to ensure all project financial, technical and operational processes are captured, monitored, analyzed and evaluated at all levels (national, county, community and individual farmer level).

### **3 Scope of assignment and Specific tasks**

The three-tier architecture to system design described above is proposed to put in place a system that operates at three separate levels with efficient provision for data integration (between and within the respective tiers) and analysis. The first tier at NPCU, consisting of an integrated database platform intended to capture all instances of data in the counties including data on all the CIGs/VMGs, micro-project and multi-community investments, Farmer Producer Organizations, SACCOs, DAT, priority value chains data on all project components, including their mutual linkages, and upload all the data to the main database system at the NPCU.

The second tier of the MIS will be implemented in all the 33 county CPCUs to enable facilitation, implementation and coordination of the various components of the project as well as provide an efficient data capturing and transfer mechanism to the NPCU central database.

The first tier of MIS will be implemented at the community level in the selected wards in the counties. Community group leaders will be responsible for data collection and verification before it is uploaded to the system. Standardized data collection tools such as mobile-based data applications will be used to ensure harmonization.

The MIS will utilize data from baseline surveys, mid-term review, and end-of-project impact evaluations. The overall responsibility for establishing, managing, using, and maintaining data platforms will require capacity building at all levels. The platforms developed will provide the project and other stakeholders with the ability to: (i) capture data at the various level activities using electronic devices connected to web and mobile networks and (ii) upload the data and geospatially aggregate and transmit it to the central database. The platforms will also enable email, file sharing, and creation of data visualization dashboards.

### **3.1 Proposed MIS Functional Areas**

The redesign of the envisaged upgraded MIS system will be anchored on the NAVCDP results framework and the associated arrangements for results monitoring (tracking plan) to facilitate efficient linkage of the results chain from inputs – activities – outputs – intermediate outcomes indicators for each project components and the outcome indicators, project components in addressing the Project Development Objective (PDO).

- i. The redesign should aim at a system that is efficient, effective and allows for continuous input of observed and collected data; analysis, reporting and data/information storage that keeps the management well informed of the project progress towards meeting the set objectives. The system design is expected to ensure active involvement of all implementing and executing agencies as well as beneficiaries. The upgraded system design should ensure that: - For each key performance indicator (Direct beneficiaries, marketing, commercialization and value-addition) the system should define measurements for inputs, outputs and outcomes at micro and sub-project levels.
- ii. To achieve i) above, the system should define the type, source, procedure/approaches/methods and frequency of data collection giving attention to simplicity and precision. Reference should be made to the projects' data collection tools.
- iii. The most suitable analytical procedures/reports required to transform the collected/recorded data into useful monitoring and evaluation information presented in a simple standard format for timely use in decision-making are set.
- iv. Mechanisms/procedures for effective reporting and feedback at different levels of project management for all project investment windows.
- v. Develop practical/user friendly web-based applications capable of storing and retrieving data and information that is compatible with other systems/formats used in agricultural programmes. This will allow comparison of project results with findings from similar projects elsewhere.
- vi. The MIS design should be compatibility with the GOK and World Bank financial monitoring and Reporting systems. of financial management of projects. The design of the MIS should therefore incorporate the requirements for the Financial Monitoring Reports (FMR). This will enable the project team to develop the annual project activity work plans in synchrony with disbursement and procurement plans.
- vii. The redesigned MIS should incorporate data visualization dashboard and graphical analytical tools with integration to tools like Power BI for more analytics.

### **3.2 Specific Tasks**

The consultant in the course of undertaking this exercise will be required to execute the following tasks.

- i. Holding meetings with the project implementation team (management and component coordinators) to discuss the type, specified key performance indicators, detail/description, and frequency of information needed;
- ii. Review current gaps, challenges and lessons learnt in the implementation of the current MIS in place;

- iii. Review the current reporting/documentation procedures and indicate scope for improvement at all levels;
- iv. Review project reports and the M&E framework and consider recommendations contained therein;
- v. Define, establish and document full understanding of the new project design and scope. This shall entail details of the stakeholders involved, the definition of problem domain and the solution: a description of the system to be implemented and the high-level requirements and system specifications.
- vi. Develop a detailed logical architecture of the system based on the reviewed processes, requirements and specification and undertake iterative review with the users for revision and acceptance;
- vii. Oversee system alignment, specification customization and quality assurance testing against the requirements;
- viii. Manage the deployment of the system at both the NPCU and the project counties;
- ix. Develop training manuals and provide user training;
- x. Advise the client on suitable hosting of applications based on current infrastructure.
- xi. Upon operationalisation, evaluate the system in terms of performance, usability and other metrics;
- xii. Provide post implementation evaluation and regularly review the system during project period.

#### **4 Duration of the Assignment**

The main phase of review, upgrade and execution of the consulting services is expected to be finalized within six (6) months from the date of commencement and the oversight, management and evaluation of the system to be provided for two years during its operationalization.

#### **5 Reporting Requirements & Deliverables**

The assignment is expected to commence immediately after the signing of the contract. The consultant will be expected to submit the following:

<b>S/No.</b>	<b>Deliverables/Reports</b>	<b>Timeline for submission of deliverable/report after the contract commencement</b>	<b>Format of presentation of Deliverables/Reports</b>
1	Inception report	2 weeks	3 hard copies and 1 soft copy in pdf format
2	Interim Report	10 weeks	3 hard copies and 1 soft copy in pdf format
3	Final Report	20 weeks	3 hard copies and 1 soft copy in pdf format
4	1 <sup>st</sup> Post-Evaluation Management Report	1 year	3 hard copies and 1 soft copy in pdf format

5	2 <sup>nd</sup> Post-Evaluation Management Report	2 Years	3 hard copies and 1 soft copy in pdf format
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All reports shall be addressed and submitted to the National Project Coordinator, NAVCDP.

## 6 Payment Schedule

Deliverable	Payment % of contract amount
Submission and acceptance of the Inception Report	10%
Submission and acceptance of the Interim Report	30%
Submission and acceptance of the Final Report	40%
Submission and acceptance of the 1 <sup>st</sup> post-evaluation report –One year after implementation	10%
Submission and acceptance of the 2 <sup>nd</sup> post-evaluation support report – Two years after implementation	10%

## 7 Consultant’s Minimum Qualification and Experience Requirements

The firm shall have proven experience in similar assignments, M&E MIS review, development and implementation of Community Development Driven (CDD) project(s) model.

The shortlisting criteria will include:

- i. Core business and years in business: The firm shall be registered/incorporated as a consulting firm with core business in management information systems (MIS) or related field for a period of at least eight (8) years.
- ii. Relevant experience: The firm shall demonstrate as having successfully executed and completed at least five assignments of similar nature, complexity and in a similar operating environment in the last eight (8) years. Details of similar assignments-Name and address of the client, scope, value, and period should be provided and submitted. Expression of Interest should include enumeration of these similar past assignments.
- iii. Technical and managerial capability of the firm: The firm shall demonstrate as having the requisite technical capacity including relevant equipment and managerial capacity to undertake the assignment in the submitted company profile(s).

## 8 Team Composition and minimum qualification and experience requirements for key experts

### 8.1 Team Leader – M&E/MIS Expert

- Minimum of a Master’s degree in information systems or related field;
- A minimum of 8 years’ experience in reviewing and overseeing similar systems in the agricultural, livestock, water or rural development sectors;

- Specific M&E MIS experience working with the development projects. Provide evidence of similar projects undertaken by the firm including names of contacts person(s) for each project;

### **8.2 Data Analysis/Database Expert**

- Minimum of a Bachelor’s Degree in Information Technology/Systems, Computer Science or any related Information Technology field
- Have at least eight (8) years’ experience in reviewing and implementing database systems for project, programmes or organizations
- Must demonstrate specific experience in working with relational database systems. Ability to integrate relational data with mobile-based data collection tools and other systems such as GIS based spatial databases will be an added advantage.
- Have very good experience in data tools development, sampling, data collection, analysis and reporting

### **8.3 Information Security Expert**

- Minimum of a Bachelor’s Degree in Information Technology/Systems, Computer Science or any related Information Technology field
- Have at least five (5) years’ experience in implementing and managing large IT networks, disaster recovery management, IT security and Enterprise Architecture
- Should have specific knowledge of Server-side management and implementing cloud-based web applications, virtual private networks, Security protocols implementation and Business continuity

## **9 Estimated Time Inputs for Key Experts**

The number of key experts and the estimated time input for each key expert for the assignment are presented below.

<b>Key Experts</b>	<b>Time-inputs in person-months</b>
Team Leader	6 months
Data/Database Expert	6 months
Information Security Expert	4 months

## **10 Management & accountability of the assignment**

All coordination and management of the assignment will be undertaken at the project’s NPCU secretariat offices. The consultant will report to the National Project Coordinator and will work closely with the Monitoring and Evaluation and ICT teams at the NPCU and the Component Coordinators during assignment execution. Logistical and operational issues will be discussed and addressed by the NPCU.

## **11 Obligations of the Client**

- The client will nominate a liaison officer who will maintain regular contact with the consultants on matters regarding the consultancy.



- The client will provide appropriate administrative support to the Consultants when need arises.
- The client will facilitate transportation arrangement for field visits if required.
- The client will provide all necessary documentation required of this assignment.
- The client will facilitate hiring of training venues and related logistical costs.
- The client will facilitate any other additional engagements and associated costs if required.

## **12 Obligations of the Consultant**

The Consultant shall be responsible for their own insurance, communication and other associated costs while executing the assignment. The consultant is expected to undertake activities that will ensure that outputs are consistent with the professional and legal requirements. It is also required that the data is generated through a consultative process that guarantees authenticity and ownership.

## **13 Propriety rights of Client in report and records**

All data and information shared during the assignment by the client are to be treated confidentially and are only to be used in connection with the execution of this Terms of Reference. The Client will be the absolute owner of the system and will have full ownership and the consultant shall not replicate or reproduce or use any applications developed or datasets used for this assignment without the consent of the owner. The firm will provide proper documentation for all the modules documented, training and reference manuals for the different user levels. The content of written materials obtained or prepared in this assignment will not be disclosed to any third parties without the expressed advance written authorization from the National Project Coordinator.