

Kingdom of Cambodia
Nation Religion King

Ministry of Agriculture, Forestry and Fisheries
Cambodia Agricultural Sector Diversification Project
IDA Credit No. 6366 KH

TERMS OF REFERENCE

**Consultant Firm for Development of Information System
(AMIS & Agriculture Statistic Information (ASI), apps, and initial database for CASDP)**

Project:	Cambodia Agricultural Sector Diversification Project (CASDP)
Duty station:	Ministry of Agriculture, Forestry and Fisheries, Department Planning and Statistics-DPS Phnom Penh, Cambodia
Section/Unit:	Component 3.1
Contract/Level:	Consultant Firms
Supervisor:	PCO, MAFF-DPS, Project Director and Project Managers
Mode of Contract:	Duration of the assignment, the assignment will be provided over the course of 3 years, pursuant to yearly satisfactory performance reviews.

1. General Background. The CASDP is a project to support the implementation of the Royal Government of Cambodia's to enhance market opportunities through an inclusive, beneficiary-led, market-driven approach leading to enhanced competitiveness and increased capacity to manage climate risks and to be implemented over 6 years. The Project Development Objectives are to facilitate the development of diversified agriculture value chains in selected geographical areas in Cambodia and to provide immediate and effective response in case of an eligible crisis or emergency. The Project has five components, including (a) Enabling Agriculture Diversification; (b) Supporting Public Infrastructure; (c) Improving Agriculture Information Systems and Quality Control Management; (d) Project Management, Coordination, and Monitoring and Evaluation; and (e) a zero-allocation component for Contingent Emergency Response. The main beneficiaries of the project are: (i) farmers in selected project regions, both rural and peri-urban; (ii) agribusinesses (entrepreneurs and workers) participating in identified value chain development; (iii) general population in rural project areas; and (iv) project implementing agencies (IAs) at national and sub-national level. The project will operate within the targeted 12 provinces, plus in Phnom Penh, including Kampong Chhnang Battambang, Siem Reap, Preah Vihear, Stung Treng, Ratanakiri, Mondulkiri, Kratie, Tboung Khmum, Kampong Cham, Kandal, Kampong Speu. The provinces have been chosen for their suitable agroecological conditions for high-value products, with Phnom Penh as the location of many potentially participating SMAs.

2. Overall Project Management. The Ministry of Agriculture, Forestry and Fisheries (MAFF) is leading the overall project management and coordination as Executing Agency (EA) and will include Ministry of Rural Development (MRD) and Ministry of Water Resources and Meteorology (MoWRAM) as Implementing Agencies (IAs) for the related public infrastructure support. The Ministry of Economy and Finance (MEF) will oversee the financial services support. Support will be provided for the establishment of a Project Coordination Office (PCO), chairs by CASDP's Project Director, and consists of MAFF, MRD, MoWRAM and MEF core team and management team, and the Secretariat of the Technical Working Group on Agriculture and Water (TWGAW).

3. Post supervision. The Consultant Firm is under supervision of Department Planning and Statistics, Project Director and Project Managers and works closely with Agricultural Information Center, Department Extension of Agriculture, Forestry and Fisheries, and Provincial Department of Agriculture, Forestry and Fisheries under MAFF.

4. Liaison and Cooperation. The Consultant Firm cooperates closely with other Firms and/or NGOs, international and national consultants/advisers and officers at MAFF and sub-national team as well as development partners and other relevant stakeholders to support the CASDP activities.

5. Objective of the Assignment/Duties. The Consultant Firm has two key roles (i) Develop Website on Agricultural Marketing Information System (AMIS) and Agriculture Statistic Information (ASI), (ii) Develop Data apps and assumes separate apps for all relevant sub-sectors, (iii) Development of initial database and includes sub-sector specific data collection, processing and entering, (iv) Capacity building for Training of Trainers.

6. Specific Tasks and Scope of Work. Specifically, the Consultant Firm will:

- (i) Develop Web Portals on Agricultural Marketing Information System-AMIS and Agriculture Statistics Information-ASI,
 - Reviewing Agricultural Market Information System- AMIS, Agriculture Statistic Information-ASI, Agricultural information documents, Extension Portal and other any existing ICT/website in technical Departments under MAFF and will upgrade and linkage Agricultural information and Agriculture data
 - Discussion/Reach agreement with all stakeholders including technical department under MAFF, DPS and PDAFF on the data to be collected, how and when it would be collected and what form format shall be used for data collection under the guidance of MAFF-DPS.
 - . The system shall allow users to export the statistic result to PDF or Excel format. The Consultant Firm shall ensure the quality of the data analysis for presenting and disseminating to policy makers and development planners for formulating of agricultural policy planning. The report format and template of data to be exported shall be provided by MAFF-DPS for further discussion and finalize
 - Develop market intelligence and marketing information models by using Machine Learning to provide marketing insights and support the decision makers based on the data collected from the fields. The system shall be able to compare the previous data with the current update data and predict/forecast for the upcoming years such as expecting production drop or increase, expecting price drop or increase in the upcoming quarter or year. These data shall be verified by an expert to ensure the quality.
 - Develop data entry tools to collect commodities and agriculture inputs statistic data including price, input source, sellers, buyers, production, land size, GIS .etc. for statistical analysis and prediction.
 - Design and develop agricultural statistics database for central and province level. The database shall be flexible and scalable for future update and improvement. Importantly the design of the database shall follow the standard guidelines to ensure usability and optimize performance for large data set.
 - Discuss with relevant partners such as Ministry of Water Resources and Meteorology to design and develop weather forecasting and alert for any upcoming rain, flood, drought or storm within the province or specific area.
 - Develop agriculture forum for discussion that open for the public to register and join the discussion. The forum shall be moderated by technical department under MAFF.
 - Design and develop a full operational AMIS and ASI website for market intelligent and data analysis for MAFF to use and shall be moderated under technical department of MAFF. The website shall include GIS analysis with mapping for all sub-national and country and can be disaggregated by location and commodity.
 - The AMIS and ASI shall produce different types of marketing information formats/Agriculture Statistics Information and reports and disseminates these via emails to relevant stakeholders such as MAFF, PDAFF, Projects, business associations or other government agencies.
 - Create and setup social networks (fb, telegram, intagram, email...) for use within MAFF and PDAFF with official MAFF domain name.
 - The firm shall provide technical consultation in design, development and deployment of the AMIS.
 - The firm shall deliver the AMIS and ASI with a complete system design manual and user manual.
- (ii) Develop Data Collection Apps and website for all Technical Departments under MAFF and PDAFF relevant sub-national
 - Reviewing existing app and work process of data collection from the fields
 - Reach agreement with all stakeholders including technical department under MAFF, DPS and PDAFF on the data to be collected, how and when it would be collected and what form format shall be used for data collection.
 - Consider reuse existing open-source data collection app as for gathering and collecting agriculture information including pricing, production, land size, agricultural inputs, seeds, providers, sellers, buyers, import/export information, GIS .etc.

- Design and develop farm management module for data entry and tracking the land use, land size of farm production for specific commodities within all relevant sub-national.
- Develop the website for PDAFF all sub-national based on the main website of AMIS/ASI.-but with data filtered for the sub-national only. Total of 40 websites shall be produced including 25 new websites for PDAFF, 10 Departments to be upgraded and new established and 5 General Directorates to be upgraded and new Library.
- The AMIS sub-national shall produce different types of marketing information formats and reports and disseminates these via SMS to relevant stakeholders such as PDAFF, Projects, business associations or other government agencies.
- Link the website with extension hub/portal and mass media.
- The firm shall provide technical consultation in design, development and deployment of the App.
- The firm shall deliver the App with a complete system design manual and user manual.
- The website shall be linked with Agricultural Marketing Information System-AMIS, Agriculture Statistics Information-ASI, and Web Portals.

(iii) Capacity building for Training of Trainers.

- Provide training for key staffs of relevant departments within MAFF at national and Provincial levels
- On the job trainings for PDAFF on data management
- Follow up and Assessment capacity of key staff and recommendation

(iv) System Maintenance

- The firm shall continue to provide technical support and system maintenance for all websites and web portals for at least a period of 1 year after delivery to ensure the operational and functional of the AMIS and ASI. This technical support and maintenance shall cover the existing modules/functionalities only, any new design change, request or new functionalities shall not include.
- During the maintenance period, the firm shall assist in setting up and launching the websites and web portals under the existing MAFF data center infrastructure.

7. Qualifications Required the Consultant Firm shall have the following qualifications:

- a) Experience operating in Cambodia at least 3 years in Development of website, web portals, mobile apps, and relational database design. Experience in agriculture and market information related is a high plus. Experience in design and development of large scale web portal and database with large amount of users.
- b) Experience delivering or designing technical or specialized job on Website on Agricultural Marketing Information System-AMIS and Agriculture Statistics Information-ASI
- c) Consulting Firm's experience vis a vis the assignment TOR and Technical Assistance Provider is an asset.
- d) Experience managing at least two relevant contracts/projects with an international organization (i.e. UN agencies, World Bank, ADB, IFAD, bilateral donors, etc.)
- e) Country Experience and Permanent presence/local office