

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



Ministry of Agriculture and Animal Welfare
Male', Republic of Maldives



Ministry of Agriculture and Animal Welfare

Expression of Interest

(by the consultant in response to the REOI issued by
the procuring entity)

for

Information Communication Technology (ICT) & Digital
Agriculture Consultant for The Enhancement of Agriculture
Information and Communication Technology (AICT) platform and
Development of Mobile Application

Ref No: MAP/CS/2023/12

Submission date: 09th January 2024

Foreword

This document has been prepared by Project Implementation Unit of Ministry of Agriculture and Animal Welfare and is based on the 1st edition of the IFAD-issued standard procurement document for expression of interest available at www.ifad.org/project-procurement. This bidding document is to be used for the procurement of services using Quality Cost Based Selection in projects financed by IFAD.

IFAD does not guarantee the completeness, accuracy or translation, if applicable, or any other aspect in connection with the content of this document.

Instructions to Consultants¹

Reference Number: MAP/CS/2023/12

26th December 2023

Information Communication Technology (ICT) & Digital Agriculture Consultant for The Enhancement of Agriculture Information and Communication Technology (AICT) Platform and Development of Mobile Application

1. The Government of Maldives has received financing from the International Fund for Agricultural Development (“the Fund” or “IFAD”) towards the cost of Maldives Agribusiness Programme (“the client” or “procuring entity”), and intends to apply part of the proceeds for the recruitment of consulting services, for which this REOI is issued.

The use of any IFAD financing shall be subject to IFAD’s approval, pursuant to the terms and conditions of the financing agreement, as well as IFAD’s rules, policies and procedures. IFAD and its officials, agents and employees shall be held harmless from and against all suits, proceedings, claims, demands, losses and liability of any kind or nature brought by any party in connection with Maldives Agribusiness Programme.

2. The client now invites expressions of interest (EOIs) from consultants (individual consultants) (“consultants”) for the recruitment of ICT & Digital Consultant for The Enhancement of Agriculture Information and Communication Technology (AICT) Platform and Development of Mobile Application. More details on these consulting services are provided in the preliminary terms of reference (PTOR) attached as **Annex 1**. The consultant is not allowed to sub-contract selected activities provided.
3. Before preparing its EOIs, the consultant is advised to review the preliminary terms of reference attached as **Annex 1**, which describe the assignment and **Annex 2** that details the evaluation of the technical qualifications.
4. The consultant shall not have any actual, potential or reasonably perceived conflict of interest. A consultant with an actual, potential or reasonably perceived conflict of interest shall be disqualified unless otherwise explicitly approved by the Fund. A consultant including their respective personnel and affiliates are considered to have a conflict of interest if they a) have a relationship that provides them with undue or undisclosed information about or influence over the selection process and the execution of the contract, b) participate in more than one EOI under this procurement action, c) have a business or family relationship with a member of the client’s board of directors or its personnel, the Fund or its personnel, or any other individual that was, has been or might reasonably be directly or indirectly involved

¹ This document refers to legally constituted consulting firms as “consultant”.

in any part of (i) the preparation of this expression of interest, (ii) the selection process for this procurement, or (iii) execution of the contract. The consultant has an ongoing obligation to disclose any situation of actual, potential or reasonably perceived conflict of interest during preparation of the EOI, the selection process or the contract execution. Failure to properly disclose any of said situations may lead to appropriate actions, including the disqualification of the consultant, the termination of the contract and any other as appropriate under the IFAD Policy on Preventing Fraud and Corruption in its Projects and Operations².

5. All consultants are required to comply with the Revised IFAD Policy on Preventing Fraud and Corruption in its Activities and Operations (hereinafter, “IFAD’s Anticorruption Policy”) in competing for, or in executing, the contract.
- a. If determined that a consultant or any of its personnel or agents, or its sub-consultants, sub-contractors, service providers, suppliers, sub-suppliers and/or any of their personnel or agents, has, directly or indirectly, engaged in any of the prohibited practices defined in IFAD’s Anticorruption Policy or integrity violations such as sexual harassment, exploitation and abuse as established in IFAD’s Policy to Preventing and Responding to Sexual Harassment, Sexual Exploitation and Abuse³ in competing for, or in executing, the contract, the EOI may be rejected or the contract may be terminated by the client.
 - b. In accordance with IFAD’s Anticorruption Policy, the Fund has the right to sanction firms and individuals, including by declaring them ineligible, either indefinitely or for a stated period of time, to participate in any IFAD-financed and/or IFAD-managed activity or operation. The Fund also has the right to recognize debarments issued by other international financial institutions in accordance with its Anticorruption Policy.
 - c. Consultants and any of their personnel and agents, and their sub-consultants, sub-contractors, service providers, suppliers, sub-suppliers and any of their personnel and agents are required to fully cooperate with any investigation conducted by the Fund, including by making personnel available for interviews and by providing full access to any and all accounts, premises, documents and records (including electronic records) relating to this selection process or the execution of the contract and to have such accounts, premises, records and documents audited and/or inspected by auditors and/or investigators appointed by the Fund.
 - d. Consultants have the ongoing obligation to disclose in their EOI and later in writing as may become relevant: (i) any administrative sanctions, criminal convictions or temporary suspensions of themselves or any of their key personnel or agents for fraud and corruption, and (ii) any commissions or fees paid or to be paid to agents or other parties in connection with this selection

² The policy is accessible at www.ifad.org/anticorruption_policy.

³ The policy is accessible at <https://www.ifad.org/en/document-detail/asset/40738506>.

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process or the execution of the contract. As a minimum, consultants must disclose the name and contact details of the agent or other party and the reason, amount and currency of the commission or fee paid or to be paid. Failure to comply with these disclosure obligations may lead to rejection of the EOI or termination of the contract.

- e. Consultants are required to keep all records and documents, including electronic records, relating to this selection process available for a minimum of three (3) years after notification of completion of the process or, in case the consultant is awarded the contract, execution of the contract.
6. The Fund requires that all beneficiaries of IFAD funding or funds administered by IFAD, including the client, any consultants, implementing partners, service providers and suppliers, observe the highest standards of integrity during the procurement and execution of such contracts, and commit to combat money laundering and terrorism financing consistent with IFAD's Anti-Money Laundering and Countering the Financing of Terrorism Policy.⁴
7. **Procedure:** the selection process will be conducted using Quality Cost Based Selection as laid out in the IFAD Procurement Handbook that can be accessed via the IFAD website at www.ifad.org/project-procurement. The client will evaluate the EOIs using the criteria provided in **Annex 2**. The shortlisted consultant(s) will be provided with the detailed TORs and asked to submit a detailed technical and financial offer. The evaluation will include a review and verification of qualifications and past performance, including a reference check, prior to the contract award.
8. Consultants may not associate with other firms.
9. Any request for clarification on this EOI including the PTOR should be sent via e-mail to the address below no later than 02nd January 2024, 10:00hrs (GMT+5). The client will provide responses to all clarification requests by 05th January 2024, 15:00hrs (GMT+5).
10. **Submission Procedure:** please submit your expression of interest in the form of curriculum vitae (CV) with supporting documents. Your EOI should comprise one (1) original copy of each EOI form annexed to this document. EOIs shall be submitted to the address below (in person, or by email, or by fax, or by mail) no later than 09th January 2024, 14:00hrs (GMT+5).

Maldives Agribusiness Programme
Project Implementation Unit
Ministry of Agriculture and Animal Welfare
Attn: Shazin Mukhthar Rushdhy / Procurement Specialist

⁴ The policy is accessible at <https://www.ifad.org/en/document-detail/asset/41942012>.

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Yours sincerely,



Shafana Rasheed

Project Director

Project Implementation Unit, Ministry of Agriculture and Animal Welfare

ANNEX 1

PRELIMINARY TERMS OF REFERENCE

Re: Recruitment of Information Communication Technology (ICT) & Digital Agriculture Consultant

Ref: MAP/CS/2023/12

1. Client

The client for this assignment is Project Implementation Unit (PIU) under the Ministry of Agriculture and Animal Welfare (MoAAW).

2. Country Background

Maldives being located near the equator is a tropical country with warm and humid tropical monsoon climate with an annual temperature of 28°C. The hottest month of the year is April with an average daily maximum of 32°C and an average low of 29°C. The coolest month of the year is November with an average daily maximum of 30°C and an average low of 27°C. There are two distinct seasons in Maldives. The Southwest monsoon and the Northeast monsoon. From May or April to October or November is the southwest monsoon which brings windy and rainy weather, and the rest of the year is usually dry and sunny days. Between December and April rainfall amounts are at their lowest, accompanied with the longest hours of sunshine.

Agriculture is one of the primary industries involved in domestic production along with Fisheries in Maldives. Its contribution to GDP was at 1.6% in 2020. Production has remained constant throughout the past five years with a slight increase of 1.6% in 2020 compared to 1.1% and 1.2% in 2019 and 2018 respectively.

Due to the geographic nature of the country, visiting farmers regularly to provide technical support is a costly operation. Almost all Maldivian farmers use smart phones and mobile internet service. In order to increase outreach to farmers, it is essential to make the best use of user-friendly smart technologies.

3. Project Background

The Government of Maldives (GoM) through the Ministry of Agriculture and Animal Welfare (MoAAW) is initiating the implementation of the Maldives Agribusiness Programme (MAP) with the support of International Fund for Agriculture Development (IFAD). The Project Implementation Unit (PIU) set up within the MoAAW will manage the Program in accordance with the guidelines provided by the design report,

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implementation manual and under the guidance of the project steering committee and IFAD supervision missions.

The main aim of MAP is to enable small farmers in the Program area to sustainably enhance their production levels, increase income, secure food and nutrition for their household demands, and deliver produce to connected markets.

The Programme will be of nation-wide scale, covering all regional and sub-regional hubs, clusters and islands where agriculture is undertaken by small farmers. The main Programme hubs for Programme activities are in region 1-3 are Haa Alif Hoarafushi for region 1. Haa Dhaalu Vaikaradhoo for region 2, and Shaviyani Milandhoo for region 3. Each of these hubs will serve 8, 9 and 9 inhabited agriculture islands respectively. Specifically, under different technical components:

- Component 1 of Enabling policy, institutions, and services will be nationwide in scope covering all 19 atolls, 21 regions covering 188 inhabited islands of these 98 are inhabited where agriculture is practiced on around 800 registered hectares. Also belonging to the Programme area are 50 uninhabited islands leased for commercial agricultural purposes, with a total of 956 hectares of land of which 24 islands are actively doing agriculture on 582 hectares of land.
- Component 2 of Climate smart production will initially focus on region 1-3, covering 3 atolls and 40 inhabited islands. Of these, 26 are inhabited agriculture islands with 280 hectares of registered land cultivated by 2,150 registered farmers, and 85 hectares cultivated by 645 non-registered farmers. Within this production area there are 6 active commercial islands cultivating a total of 250 hectares.
- Component 3 of Market connection will initially focus on regions 1-3 during the first two years and then expand to regions 4-7 and eventually cover the whole country.

4. Background of the assignment

The overall purpose of this assignment is to develop a mobile application compatible to both Android and ios mobile devices (in English and Dhivehi) that can facilitate ease of dissemination of agriculture advisory information. This application should also provide a new communication pathway for the agriculture community to interact with agriculture advisory personnel.

The service provide (SP) will be responsible for the development of a multi-user system application followed by bug fixes and troubleshooting. Thereafter, the Expert will conduct awareness raising programmers for farmers and ToTs for the extension officers, which requires the support of the SP. A variety of information materials (videos, leaflets

etc.) will further facilitate the training programs. And also provide technical trainings for famers and Technical Officers, to men and women, equally.

5. Overall objectives

The Programme's goal is to sustainably increase the incomes, food security and nutrition status of small farmer households.

The development objective is to strengthen and enable the environment for sustainable and climate-resilient agriculture. This objective will be achieved through identification of improvements in the existing policies, development of new regulations to strengthened the institution and the services, to enhance agricultural technologies and access to financing and markets for small farmer households.

6. Objectives of the assignment

The overall purpose of this assignment is to make agricultural technical information easily accessible to farmers and creating a mutually beneficial relationship between agricultural research & extension personnel and farming communities.

7. Scope of work

7.1. The Expert will:

- 7.1.1 liaise closely with all stakeholders, including the IT / software development Service Provider (SP) to guide and support the development, implementation and training of a multi-user mobile application.
- 7.1.2 Ensure that the source code and the software is archived in IFAD software development lifecycle (SDLC).
- 7.1.3 Provide technical trainings for famers and Technical Officers, to men and women, equally.

7.2. Technical Focus:

- 7.2.1 Guide, support, monitor and evaluate the development of a mobile application in Dhivehi that can facilitate ease of dissemination of agriculture advisory information. This application should also provide a new communication pathway for the agriculture community to interact with agriculture advisory personnel.
- 7.2.2 Conduct awareness-raising programmes for farmers and conduct ToTs and trainings for users to strengthen the functional capacities of agricultural extension services.

7.3. Tasks and Responsibilities:

- 7.3.1 Carryout virtual, as well as face to face meetings/sessions wherever possible, to conduct a situation analysis on existing gaps, identify user

- knowledge and capacity, feasibility of identified geographical locations, availability of internet connectivity, interface requirements etc.
- 7.3.2 Identify relevant web and mobile applications that are already in use by the Government of Maldives in providing any agriculture related service.
 - 7.3.3 Based on the Ministry of Agriculture and Animal Welfare (MoAAW) and other potential user's necessities, guide and support the development of extensive software requirements specification, including overseeing stakeholder consultations on software requirements gathering
 - 7.3.4 In developing the mobile app and system structure, consult with both internal and external users including senior officials of MOAAW and National Centre for Information Technology (NCIT) to ensure that the system is in line with relevant policy, procedures and meet legal/regulatory requirements.
 - 7.3.5 The expected system/outcome would include IT application objectives, conceptual design and framework, type of data/information inputs (including its source), user interface requirements (extension and farmer) and operational/work flow structure (information and data extraction, dissemination and sharing).
 - 7.3.6 Ensure that the mobile app provides all content, data, features and functionality as present in the existing web app, and as per specifications in the TORs for the mobile app development
 - 7.3.7 Ensure that the Service Provider (SP) designs the mobile app in a manner that optimizes the end users experience.
 - 7.3.8 Facilitate trial runs, bug fixing and submit the final mobile app following a thorough trouble-shooting carried out by the SP.
 - 7.3.9 Carryout virtual or face to face training program for application users (e.g. Govt. officers, field Officials, farmers and Farmer Organizations).
 - 7.3.10 Closely liaise with the MoAAW National Project Coordinator, who would facilitate consultations with Government stakeholders, MoAAW field officers, technical offices, Farmer Organizations and farmers.
 - 7.3.11 Closely liaise with the SP in overseeing, guiding and supporting the mobile app during the requirements, design, development, deployment, training and support throughout the SDLC
 - 7.3.12 Obtain technical clearance with project technical team in technical matter.
 - 7.3.13 Planning, monitoring and evaluation of the mobile app through the software development life cycle, including QA/SQA activities
 - 7.3.14 Leading stakeholder consultations and discussion throughout the software development life cycle to ensure that expectations and outcomes are met, and feedback is provided
 - 7.3.15 Ensure that the IT SP conducts the following tasks:

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- 7.3.15.1 Ensure that the mobile app aligns with the Unique Entity Identifier (UEI) and Unique Product Number (UPN) framework.
- 7.3.15.2 Ensure that the mobile application provides access to content stipulated in 5, mobile app development TORs and existing web app.
- 7.3.15.3 Ensure that modules are developed to exchange communications between farmers and extension officers (enable to share photos, videos and text via the mobile app).
- 7.3.15.4 Ensure the mobile app enables the exchange information (photos, videos and text) both private and common platform.
- 7.3.15.5 Ensure modules are developed as per TORs requirement with seamless integration with the web app, AOS and other software.
- 7.3.15.6 Ensure mobile app functionality to automatically send weather alerts/ pest outbreak alerts to mobile application users and other notifications and alerts
- 7.3.15.7 Ensure that all newly developed interfaces are fully tested and made available for end users.
- 7.3.15.8 Ensure that user manuals (both internal and external) are developed for all interfaces developed for service modules.
- 7.3.15.9 Ensure that the mobile app confirms to the requirements as documented in the SRS

8. Reports and schedule of deliverables

- 8.1. Ensure that the Software Requirements Specification (SRS) document submitted by the mobile application developer is in line with the technical requirements of MoAAW.
- 8.2. Develop and submit a workplan along with time line of activities of the project within the second week from project contract signing date.
- 8.3. Take lead and conduct regular meetings with service providers and MoAAW technical team to assure intended outcomes are achieved
- 8.4. Keep records of meeting minutes and share the work progress with PIU regularly
- 8.5. Any other deliverables as per the various clauses of this TOR

9. Consultant's qualifications and experience

Key expert 1: Software Engineer

Qualifications and skills

The Consultant should have an MSc Degree in software engineering.

General professional experience

- Proven track record of web and mobile application development for multiple disciplinary organizations

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- A well-organized and self-directed individual with sound technical skills, analytical ability, good judgment, and a strong operational focus.

Specific professional experience

- Experienced in requirement gathering, documenting and analysis.
- Experience in managing ICT infrastructure of state or national level e-governance projects will be an advantage
- Working knowledge of the relevant computer systems and applications

Key Project coordination

- 9.1. Consultant shall operate under the overall guidance and supervision of the Project Director. Operational support and direct supervision from the PIU and technical guidance from IFAD in collaboration with MoAAW and the relevant national stakeholders must be ensured.

10. Services and facilities to be provided by client

- 10.1. Assistance required on the client's part in obtaining relevant permissions from authorities (if necessary) to carry out the Services.
- 10.2. Available relevant data and information requested by the Consultant that are deemed by client to be useful to planning and carrying out the Services.

11. Services and facilities to be provided by the consultant

- 11.1. The Consultant shall carry out all the services using own material, labour and equipment. The logistics of labour, equipment and tools shall be arranged by the Consultant.
- 11.2. The Consultant shall ensure that their personnel always carry themselves in good behavior and maintain a cordial friendly atmosphere with other personnel including employees of MoAAW, MAP, and other organizations.
- 11.3. The Consultant shall provide professional, objective, and impartial advice, at all times holding the client's interest's paramount, strictly avoiding conflicts with other assignments or its own corporate interests, and acting without any consideration for future work. The Consultant has an obligation to disclose to the client any situation of actual or potential conflict that impacts its capacity to serve the best interest of the client.

ANNEX 2

SHORTLISTING CRITERIA

Criteria	Points
General Experience	Max 30
<i>Consultant has been active for past 5 years</i>	20
<i>Consultant relevant experience</i>	10
Specific Experience	Max 70
<i>Experience in developing software for both IOS and Android</i>	30
<i>Experience in managing the complete software development from conception to deployment in Dhivehi language</i>	30
<i>Expertise in full stack development including UI/UX and backend development</i>	10
Minimum score of 70% is required to qualify for the RFP	Total 100