

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



Ministry of Agriculture and Animal Welfare

Expression of Interest

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

for

Consultancy Service for Undertaking Water and Land Use Plan Ref No: MAP/CS/2023/002

Submission date: 14th December 2023

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.

وَبِهِ بِرِهُ ثُنَّ اللَّهِ أَوْدُ 20191، بِرِوْرِ بُمَّارُخُ

Instructions to Consultants¹ Reference Number: MAP/CS/2023/002

30th November 2023

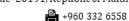
Consultancy Service for Undertaking Water and Land Use Plan

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 legally constituted consulting firms (not individual consultants) ("consultants") to provide Consultancy Service for 'Undertaking Water and Land Use Plan'. More details on these consulting services are provided in the preliminary terms of reference (PTOR) attached as **Annex 1**. The consultant may sub-contract selected activities provided that said services do will not exceed 20% of the total consultancy work.
- 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 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

2 | 22









+960 303 3411

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

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 subconsultants, 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 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.

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.

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 associate with other firms to enhance their qualifications but should indicate clearly whether the association is in the form of a joint venture and/or a sub-consultancy. In the case of a joint venture, all the partners in the joint venture shall be jointly and severally liable for the entire contract, if selected.
- Any request for clarification on this EOI including the PTOR should be sent via e-9. mail to the address below no later than 07th December 2023, 10:00hrs (GMT+5). The client will provide responses to all clarification requests by 10th December 2023, 15:00hrs (GMT+5).
- 10. **Submission Procedure:** please submit your expression of interest using the forms provided for this purpose. Your EOI should comprise one (1) original copy of each EOI form annexed to this document. EOIs shall be submitted to the address below no later than 14th December 2023, 11:30hrs (GMT+5).

Maldives Agribusiness Programme **Project Implementation Unit**

Ministry of Agriculture and Animal Welfare

Attn: Shazin Mukhthar Rushdhy / Procurement Specialist 5th Floor, M. Hazaarumaage, Fareedhee Magu, Male', Republic of Maldives

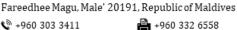
Tel: +960 3033410

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

4 | 22

map@fishagri.gov.mv

د.رَجُ مُرُدُّةً، 5 وَمَرَ وَمُرُودِوقً، وَمِيرِهُ مُنْ أَوْ 2019، يَرِوْرِ مُّمَدُّعُ



M.Hazaarumaage, 5th Floor





Maldives Agribusiness Programme

Consultancy Service for Undertaking Water and Land Use Plan (Ref no: MAP/CS/2023/002)

Fax: +960 3326558

E-mail: shazin.mukhthar@fishagri.gov.mv

Yours sincerely,

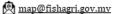
Shafana Rasheed

Project Director

Project Implementation Unit, Ministry of Agriculture and Animal Welfare

وَبِمِيرِهُ ثُونَ \$2019، يَرِهُرِيَّمَارُّغُ

www.fishagri.gov.mv





Form EOI-1 **EOI Submission Form**

[Location, date]

[Authorized official]

Re: Consultancy for Undertaking Water and Land Use Plan

Ref: MAP/CS/2023/002

We, the undersigned, declare that:

- 1. We are expressing our interest in providing the consulting services for the abovementioned assignment and have no reservations to the REOI, the instructions to the consultants and any addenda thereto.
- 2. Our expression of interest is open for acceptance for a period of ninety (90) days.
- 3. Our firm, its associates, including any subcontractors or suppliers for any part of the contract, have not been declared ineligible by the Fund and have not been subject to sanctions or debarments under the laws or official regulations of the client's country or not been subject to a debarment recognized under the Agreement for Mutual Enforcement of Debarment Decisions (the "Cross-Debarment Agreement")5, beyond those declared in paragraph 9 of this EOI submission form.
- We acknowledge and accept the IFAD Revised Policy on Preventing Fraud and Corruption in its Activities and Operations. We certify that neither our firm nor any person acting for us or on our behalf has engaged in any prohibited practices as provided in ITC Clause 6. Further, we acknowledge and understand our obligation to report to anticorruption@ifad.org any allegation of prohibited practice that comes to our attention during the selection process or the contract execution.
- 5. No attempt has been made or will be made by us to induce any other consultant to submit or not to submit an EOI for the purpose of restricting competition.
- 6. We acknowledge and accept the IFAD Policy on Preventing and Responding to Sexual Harassment, Sexual Exploitation and Abuse. We certify that neither our firm nor any person acting for us or on our behalf has engaged in any sexual harassment, sexual exploitation or abuse. Further, we acknowledge and understand our obligation to report to ethicsoffice@ifad.org any allegation of

د،رَعٌ مُرَدُّوْ، 5 وَسَرَ وَمَرُو وِقُ،

www.fishagri.gov.mv





⁵ The Cross-Debarment Agreement was entered into by the World Bank Group, the Inter-American Development Bank, the African Development Bank, the Asian Development Bank and the European Bank for Reconstruction and Development, additional information may be located at: http://crossdebarment.org/.

- sexual harassment, sexual exploitation and abuse that comes to our attention during the selection process or the contract execution.
- 7. The following commissions, gratuities, or fees have been paid or are to be paid with respect to the selection process: [Insert complete name of each recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity.]

Name of Recipient	Address	Reason	Amount	Currency

(If none has been paid or is to be paid, indicate "none.")

- We declare that neither our consulting firm nor any of its directors, partners, 8. proprietors, key personnel, agents, sub-consultants, sub-contractors, consortium and joint venture partners have any actual, potential or perceived conflict of interest as defined in ITC Clause 5 regarding this selection process or the execution of the contract. [insert if needed: "other than the following:" and provide a detailed account of the actual, potential or perceived conflict]. We understand that we have an ongoing disclosure obligation on such actual, potential or perceived conflicts of interest and shall promptly inform the client and the Fund, should any such actual, potential or perceived conflicts of interest arise at any stage of the procurement process or contract execution.
- The following criminal convictions, administrative sanctions (including 9. debarments) and/or temporary suspensions have been imposed on our consulting firm and/or any of its directors, partners, proprietors, key personnel, agents, sub-consultants, sub-contractors, consortium and joint venture partners:

Nature of the Impomeasure (i.e., criminal conviction, administrative sanction or temporary suspension)	sed by Name of party convicted, sanctioned or suspended (and relationship to the consultant)	Grounds for the measure (i.e., fraud in procurement or corruption in contract execution)	Date and time (duration) of measure
--	--	--	---

If no criminal convictions, administrative sanctions or temporary suspensions have been imposed, indicate "none".

- 10. We acknowledge and understand that we shall promptly inform the client about any material change regarding the information provided in this EOI submission form.
- 11. We further understand that the failure to properly disclose any of information in connection with this EOI submission form may lead to appropriate actions, including our disqualification as consultant, the termination of the contract and any other as appropriate under the IFAD Policy on Preventing Fraud and Corruption in its Projects and Operations.
- 12. We understand that you are not bound to accept any EOI that you may receive.

[Authorized signatory]

[Name and title of signatory]

[Name and address of firm]

8 | 22 3,3% 6 6 6 6 6 6 6 6

M.Hazaarumaage, 5th Floor

Form EOI-2 **Organization of the Consultant**

Re: Consultancy for Undertaking Water and Land Use Plan

Ref: MAP/CS/2023/002

[Provide a brief description of the background and organization of your firm/entity and of each associated firm for this assignment. Include the organization chart of your firm/entity. The EOI must demonstrate that the consultant has the organizational capability and to carry out the assignment. The qualifications document shall further demonstrate that the consultant has the capacity to field and provide experienced replacement personnel on short notice. Key staff CVs are not required at the shortlisting stage.]

Name of the firm	
Date of establishment	
Country of registration	
Full address of the firm	
Focal point: name, position, contact information (telephone, email):	Name:
	Tel:
	Email:
Number of branches in the country	
Country(ies) of operations with number of branches in each country	
Number of full-time employees	
Number of part-time employees	
Field(s)of expertise of the firm	
Number of professional staff with experience related directly to the assignment	
Subsidiary and associated companies (wherever applicable): (details in the following format to be provided for all associates) –	
provided for all associates;	

www.fishagri.gov.mv

وَيَهِيرِهَ ثُونَ \$2019، يَرِقُرِيمُمُرُفِّي

Maldives Agribusiness Programme

Consultancy Service for Undertaking Water and Land Use Plan (Ref no: MAP/CS/2023/002)

(i) Name of the company	
(ii) Nature of business	
(iii)Address of the company	
(iv) Website of the company	
(v) Brief description of company	
(maximum of 120 words)	
Any other information that the	
consultant would like to add:	

Maximum 10 pages



Form EOI-3 **Experience of the Consultant**

Re: Consultancy for Undertaking Water and Land Use Plan

Ref: MAP/CS/2023/002

[Using the format below, provide information on each relevant assignment for which your firm, and each associate for this assignment, was legally contracted either individually as a corporate entity or as one of the major companies within an association, for carrying out consulting services similar to the ones requested under the preliminary terms of reference included in this EOI. The EOI must demonstrate that the consultant has a proven track record of successful experience in executing projects similar in substance, complexity, value, duration, and volume of services sought in this procurement.]

Maximum 20 pages

Assignment name:	Approx. value of the contract (in MVR):	
Country: Location within country:	Duration of assignment (months):	
Name of client:	Total No. of staff-months of the assignment:	
Address, and contact details (including email address(es)):	Approx. value of the services provided by your firm under the contract (in MVR):	
Start date (month/year): Completion date (month/year):	No. of professional staff-months provided by associated consultants:	
Name of associated consultants, if any:	Name of proposed senior professional staff of your firm involved and functions performed (indicate most significant profiles such as project director/coordinator, team leader):	
Narrative description of project:		

Maldives Agribusiness Programme

Consultancy Service for Undertaking Water and Land Use Plan (Ref no: MAP/CS/2023/002)

Description of actual services provided by your staff within the assignment: Name of Firm:

ANNEX 1

PRELIMINARY TERMS OF REFERENCE

Re: Consultancy for Undertaking Water and Land Use Plan

Ref: MAP/CS/2023/002

1. Client

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

2. Country background

In the Maldives, basic agricultural information concerning land utilization, area planted, crop production and yield statistics, market information and livestock numbers, production, etc. is lacking. This lack of reliable agricultural statistics has made planning, policy analysis, and formulation of development projects very difficult for the Ministry, NGOs, and donor agencies.

Agriculture makes a considerable contribution to the rural economies and sustainability of rural livelihood. Although Agriculture only contributes to 1.2 % of the GDP and the contribution to the rural community is immense with the provision of food security. It has created a good market chain from the households to the island, atolls, and to the capital.

By 2021 there were 7,100 farmers registered with MoAAW. Most commonly local traded in Male' market includes coconut, banana, papaya and cucumber (SYB, 2020). However, farmers and the agriculture sector as a whole face many challenges in carrying out farming across the country.

Farmers lack the necessary technical skills to carry out sustainable agriculture and progress to value added-production. There is lack of appropriate infrastructure for agricultural value chains (such as appropriate irrigation, storage, transportation, market, etc.), and lack of farmers' organizations and opportunities for women to lead agricultural productivity. The government's Strategic Action Plan (SAP 2019-2023) addresses these challenges and aims to achieve the targets set out in the SAP through several policy interventions.

Land and water used plans for islands mentioned are participating in MAP field activities and lacking detailed information on water availability and water extractions use policy/rules. This is particularly critical for HH use, agriculture, fisheries, natural vegetation protecting the shore and biodiversity of islands. It is therefore necessary to undertake island study to examine the capacity of the water lens, safe level of water

13 | 22

وَبِهِ بِرِهُ ثُنَّ اللَّهِ أَوْدُ 20191، بِرِوْرِ بُمَّارُخُ





+960 332 6558

+960 303 3411

extraction related to the level of recharge, vertical upheaval of saltwater and horizontal intrusion for project island not having such information

3. Background on project

The Government of Maldives (GoM) through MoAAW is implementing the Maldives Agribusiness Programme (MAP) with financing from the International Fund for Agriculture Development (IFAD). The PIU set-up within the MoAAW Implements MAP in accordance with the guidelines provided by the project design report, project implementation manual of MAP, and with 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.

MAP will be implemented nationwide, covering all regional and sub-regional hubs, clusters and islands, where agriculture is undertaken by small farmers. The main hubs for Programme activities are in region 1-3 including Haa Alif Hoarafushi for region 1. Haa Dhaalu Vaikaradhoo for region 2, and Shaviyani Milandhoo for region 3. Each of these hubs will serve eight (8), nine (9) and nine (9) inhabited agriculture islands respectively.

4. Background of the assignment

One of the outputs of the project focuses on capacity building of the project partners, island farmers in effectively improving land use practices and rangeland conditions at task-specific and more strategic, long-term levels. It is envisaged that through the development of a Water lens plan will benefit from enhanced capacity to sustainably use their natural resources to secure their livelihoods while promoting biodiversity conservation.

5. Overall objectives

Land use plans for islands participating in MAP field activities are lacking detailed information on water availability and water extractions use policy/rules. This is particularly critical for HH use, agriculture, fisheries, natural vegetation protecting the shore and biodiversity of islands. It is therefore necessary to undertake a study to examine the capacity of the water lens, safe level of water extraction related to the level of recharge, vertical upheaval of saltwater and horizontal intrusion for project island not having such information.

6. Objectives of the assignment

6.1. The MAP Project Implementation Unit wishes to hire a consultant/firm who will provide leadership and documentation in the process of developing a Water and Land Use Plan for 3 islands in the Northern Atolls (HA, Hdh, and Sh). The consultant will work closely with MoAAW, the Project Implementation Unit (PIU), local island leaders, and interested stakeholders

14 | 22

درئ فروق 5 ويتر ويتروي

- 6.2. A comprehensive Water and Land Use plan for 3 islands should be developed in close coordination and collaboration with technical team of MoAAW.
- 6.3. Consultant/Consultancy need to make sure that land resources are efficiently utilized for any kind of land use activity and develop a recommendation on improving the current situation in the islands
- 6.4. The consultant should also identify monthly safe levels of water extraction across the year, extrapolation of data for use on similar islands, map showing areas where water can and cannot be extracted and the need for infiltration galleries.
- 6.5. The basis for such a study is suitable collection, harmonization and evaluation of the relevant water and land use related information, as well as generally comprehensible presentation and visualization of the planning issues, to support decision making. The assignment will ensure the scientific soundness and application of advanced technologies, to forecast feasible and effective use of land and water resources.
- 6.6. Contribute to identification of potential risks (including potential reluctance and resistance among beneficiaries) and formulate mitigation measures.

7. Approach

- 7.1. Water and Land use must be planned for 3 islands with the focus on conservation of soil, water, and other land resources and new technology of land use.
- 7.2. The consultant / consultancy service should include:
 - 7.2.1. Assess and document current water and land use practices within the island and their relative significance:
 - This will be done in a process involving meetings with island council members, with Agriculture Division members meetings, field visits etc.;
 - Assess the current land use plan of the islands.
 - 7.2.2. Identify and document sustainable water and land use practices that promote:
 - Achieve effective operational efficiencies and cost effectiveness
 - Create a suitable environment that supports range of agricultural research, demonstration and extension methodologies
 - Anticipate the trend of local demand, emerging technologies and evolving agriculture practices and research methodologies
 - Island livelihoods and cultural heritage;
 - Biodiversity conservation;
 - Reduced land use conflicts;

- Climate change adaptation strategies;
- Sustainable agriculture;

8. Scope of work

- 8.1. Review previous studies on water lens in Maldivian islands.
- 8.2. Site visits to 03 island for proper understanding of the site, its boundary, and other features that would have planning implications. The service provider shall carry out thorough data collection and do their own analysis of the area.
- 8.3. Water from both HH wells (15) and agricultural wells (15) should be sampled and tested for Water Quality testing parameters; Turbidity, electrical conductivity, PH, dissolved oxygen, Water Temperature, Color, Odor, Conductivity, pH, Acidity, Alkalinity, Total Dissolved Solids (TDS), Dissolved, Oxygen (DO), Biological Oxygen Demands (BOD), Chemical Oxygen Demand (COD), Total Phosphorous, Total Nitrogen, Chloride, Nitrate, Nitrite, Sulphate, Sodium, Magnesium, Calcium, Iron, Potassium, Ammonium, Total Fecal Coliform. A good sample should be taken and records shared with the reports.
- 8.4. Undertake groundwater survey using restrictive electrical resistivity instrument and ground conductivity.
- 8.5. Undertake UAV mapping of islands using real-time kinematic accuracy with ground points. Supplement the UAV with topographic map and geographical parameters.
- 8.6. Sufficient samples to establish soil permeability.
- 8.7. Conduct well yield test at strategic locations at the islands.
- 8.8. Under social survey if not available to quantify water use for HH, agriculture, fisheries, tourism and other economic activities existing on the islands. Also establish if the island expires flooding, if flooding how deep, how often and cause to the flooding. Establish potential flood zones of the island.
- 8.9. Estimate rate of lens water discharge and recharge on a monthly basis across the year.
- 8.10. Estimate lens water yield and maximum water extraction monthly across the year.
- 8.11. Using GIS and CAD delineate areas where water cannot be extracted
- 8.12. Provide recommendation if infiltration galleries are need on island both for better infiltration and minimizing flood water.
- 8.13. With use of appropriated statistical analysis extrapolation of finding between islands with similar configuration will be determined

9. Expected Deliverables

- 9.1. The deliverables will include;
 - 9.1.1. Prepare a work plan, meeting schedule, field visits plan, Land Use plan structure and agreed with the Project team;
 - 9.1.2. Inception report detailing methodologies and detailed work plan
 - 9.1.3. Conduct meetings with island council and relevant stakeholders and undertake field visits to relevant project areas.
 - 9.1.4. Analyze all collected data and present the first findings to the PIU team for discussion and identification of gaps. If needed collect additional data for finalization of the analysis
 - 9.1.5. The findings will be presented in a price and concise report including tables with key test results and other numerical dates and annexes with detailed test results and other numerical dates.
 - 9.1.6. The report will contain clear recommendations on monthly safe levels of water extraction across the year, extrapolation of data for use in similar islands, map showing areas where water can and cannot be extracted and the need for infiltration galleries.
- 9.2. Prepare all necessary drawing, scheme and map for the islands which will designate land areas for distinct uses based on the analysis so as to sustainably use the natural resources to secure their livelihoods while promoting biodiversity conservation.

10. Reports and schedule of deliverables

- 10.1. Inception report with process guide (detailed Methodology) and plan template and clear timelines.
- 10.2. Finalization and agreeing list of stakeholders and primary research tools.
- 10.3. Questionnaire for need assessment and FGDs
- 10.4. Community and stakeholder engagement report
- 10.5. Draft water lens and land use plan and incorporating all comments and recommendations from PIU, and MoAAW. The report should include:
 - 10.5.1 Groundwater survey using restrictive electrical resistivity instrument and ground conductivity.
 - 10.5.2 UAV mapping of islands using real-time kinematic accuracy with ground points. Supplement the UAV with topographic map and geographical parameters.
 - 10.5.3 Sufficient samples to establish soil permeability and generate reports

17 | 22 درن څخو د کر کرويو

+960 332 6558

- 10.5.4 Conduct well yield test at strategic locations at the islands.
- 10.5.5 Under social survey if not available to quantify water use for HH, agriculture, fisheries, tourism and other economic activities existing on the islands. Also establish if the island expires flooding, if flooding how deep, how often and cause to the flooding. Establish potential flood zones of the island
- 10.5.6 Estimate rate of lens water discharge and recharge on a monthly basis across the year.
- 10.5.7 GIS and CAD delineate areas where water cannot be extracted
- 10.5.8 Provide recommendation if infiltration galleries are need on island both for better infiltration and minimizing flood water.
- 10.5.9 statistical analysis extrapolation of finding between islands with similar configuration will be determined
- 10.6. Final water lens and land use plan including all drawings, recommendations, and maps

11. Consultant's qualifications and experience

Key expert 1: Team leader

Qualifications, skills and Experience

- Master's Degree in the field of Regional Planning, Environmental Planning, Agriculture Extension/ Agronomy, water and land-use Planning/ land use management or similar field.
- At least 10 years of relevant professional work experience in Land use plan and **Environment:**
- Evidence of the ability to develop GIS based Land Use Plans

Specific professional experience

- Demonstrated ability to work in partnerships with state agencies, manage and coordinate the work process
- The consultant shall have excellent planning, analytical, report writing and communication skills, and excellent knowledge of English and Divehi
- Familiar with island-based natural resource management and social land management
- Ability to take initiative and to work independently as well as part of a team;
- Excellent communication skills

18 | 22

M.Hazaarumaage, 5th Floor

- Excellent report writing, computer, and analytical skills
- Capacity to organize and facilitate senior-level consultative meetings
- Good understanding of international policies and agreements related to sustainable land management

Key expert 2: One engineer/ water hydrologist who double up as team leader Qualifications, skills and Experience

- Postgraduate degree in engineer/water hydrologist or similar field
- Professional experience of at least 10 years

Specific professional experience

- Experience in undertaking water lens and Land Use Planning studies/work including sound knowledge of planning system including methods, tools, case examples
- Experience in conducting training and organizing workshops, stakeholder dialogue
- Good understanding of international policies and agreements related to sustainable land management
- Experience on Agriculture Extension

Key expert 3: One assistant engineer/hydrologist

Qualifications, skills and Experience

- Postgraduate degree in engineer/water hydrologist or similar field
- Professional experience of at least 3-5 years

Specific professional experience

- Preferable experience in undertaking water lens and Land Use Planning studies/work including sound knowledge of planning system including methods, tools, case examples
- Experience in conducting training and organizing workshops, stakeholder dialogue
- Good understanding of international policies and agreements related to sustainable land management

www.fishagri.gov.mv

• Experience on Agriculture Extension

Key expert 4: Socio-economist

Qualifications, skills and Experience

- Postgraduate degree in economics, finance, statistic or similar field
- Professional experience of at least 5 years

Specific professional experience

- Preferable experience in financial and economic analyses, data analyses and experience on data collection
- Experience in conducting training and organizing workshops, stakeholder dialogue
- Good understanding of international policies and agreements related to sustainable land management
- Experience on Agriculture Extension

Key expert 5: Two land surveyor

Qualifications, skills and Experience

- Postgraduate degree in engineering, geodesist and surveyor
- Professional experience of at least 5 years

Specific professional experience

- Preferable experience in conducting land surveyor
- Experience in conducting training and organizing workshops, stakeholder dialogue
- Good understanding of international policies and agreements related to sustainable land management
- Experience on Agriculture Extension

12. Location and period of execution

- 12.1. Study will be conducted for the HAC of MoAAW
- 12.2. Expected duration of this assignment is up to 30 working days after signing the contract and conducting an inspection workshop

20 | 22 درئ فرد و و و و و و و و و و و و و و و و

13. Project coordination

13.1. Consultant shall operate under the overall guidance and supervision of the Project Director, with technical guidance and support from the Chief Technical Advisor of the project, operational support and direct supervision from the PIU, technical guidance from IFAD, in close collaboration with MoAAW and in consultation with the relevant national stakeholders.

14. Services and facilities to be provided by client

- 14.1. Full cooperation in facilitating the Services
- 14.2. Assistance in provision of any letters or other documents required for obtaining Visa and/or Work Permits necessary for expatriate members of the Consultancy Team.
- 14.3. Available relevant data and information requested by the Consultant regarding existing infrastructure at the Works site deemed to be useful for planning and carrying out the Services.

وَيَهِيرِهَ ثُونَ \$2019، يَرِقُرِيمُمُرُفِّي







+960 303 3411

ANNEX 2

SHORTLISTING CRITERIA

Criteria	Points
General Experience	Max 20
Firm has been active in the past 3 years	20
Specific Experience	Max 80
Experience in undertaking land use plans	30
Experience in preparing Architectural plans	25
Experience in community & Stakeholder engagements	25
Minimum score of 70% required to qualify for RFP	Total 100

S



map@fishagri.gov.mv

M.Hazaarumaage, 5^{th} Floor