

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

for

Consultancy Service for Developing Water and Land Use Plan

Ref No: MAP/CS/2024/002

Submission date: 15<sup>th</sup> July 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](http://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 Consultants<sup>1</sup>**

### **Reference Number: MAP/CS/2024/002**

13<sup>th</sup> June 2024

## **Consultancy Service for Developing 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 ‘Developing 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

<sup>1</sup> 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 Operations<sup>2</sup>.

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 Abuse<sup>3</sup> 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.

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<sup>2</sup> The policy is accessible at [www.ifad.org/anticorruption\\_policy](http://www.ifad.org/anticorruption_policy).

<sup>3</sup> 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.<sup>4</sup>
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](http://www.ifad.org/project-procurement). The client will evaluate the EOIs using the criteria provided in **Annex 3**. 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.
9. Any request for clarification on this EOI including the PTOR should be sent via e-mail to the address below no later than 24<sup>th</sup> June 2024, 10:00hrs (GMT+5). The client will provide responses to all clarification requests by 30<sup>th</sup> June 2024, 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 15<sup>th</sup> July 2024, 11:00hrs (GMT+5).

Maldives Agribusiness Programme  
Project Implementation Unit  
**Ministry of Agriculture and Animal Welfare**  
**Attn:** Shazin Mukhthar Rushdhy / Procurement Specialist  
5<sup>th</sup> Floor, M. Hazaarumaage, Fareedhee Magu,  
Male', Republic of Maldives  
**Tel:** +960 3033410

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

**Maldives Agribusiness Programme**

Consultancy Service for Developing Water and Land Use Plan (Ref no: MAP/CS/2024/002)

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**Fax:** +960 3326558

**E-mail:** [shazin.mukhthar@agriculture.gov.mv](mailto:shazin.mukhthar@agriculture.gov.mv)

Yours sincerely,



**Shafana Rasheed**

Project Director

Project Implementation Unit, Ministry of Agriculture and Animal Welfare

**Form EOI-1**  
**EOI Submission Form**

*[Location, date]*

*[Authorized official]*

**Re: Consultancy for Developing Water and Land Use Plan**

Ref: MAP/CS/2024/002

We, the undersigned, declare that:

1. We are expressing our interest in providing the consulting services for the above-mentioned 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")<sup>5</sup>, beyond those declared in paragraph 9 of this EOI submission form.
4. 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](mailto: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](mailto:ethicsoffice@ifad.org) any allegation of

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<sup>5</sup> 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.”)

- 8. We declare that neither our consulting firm nor any of its directors, partners, 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.
- 9. The following criminal convictions, administrative sanctions (including 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 measure (i.e., criminal conviction, administrative sanction or temporary suspension)	Imposed 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



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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]*

## Form EOI-2 Organization of the Consultant

### Re: Consultancy for Developing Water and Land Use Plan

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*[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 ( <i>wherever applicable</i> ): (details in the following format to be provided for all associates) -	

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(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 Developing Water and Land Use Plan

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*[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:	

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

Name of Firm: \_\_\_\_\_

## ANNEX 1

### **PRELIMINARY TERMS OF REFERENCE**

#### **Re: Consultancy for Developing Water and Land Use Plan**

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#### **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 produce 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 HOUSEHOLD 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 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 jointly implementing the Maldives Agribusiness Programme (MAP) with financing from the International Fund for Agricultural 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**

Groundwater, alongside rainfall, constitutes one of the primary sources of freshwater in the Maldives. It is distributed beneath each island in what hydrologists refer to as lenses—curved layers of freshwater floating atop denser saltwater. However, these groundwater reservoirs face multifaceted threats, including erratic future rainfall patterns, population growth, escalating pumping demands, rising sea levels, and contamination from surface pollutants. In addition, increasing temperatures exacerbate evaporation rates, diminishing the volume of rainwater available for infiltration into aquifers.

The extraction rate from aquifers has surged significantly, in areas where aquifers are shallow, such as along the island ridges. This escalating demand strains water sources, heightening the risk of saline water intrusion, imperiling agricultural lands. The intensifying requirements of agriculture necessitate meticulous planning to ensure sustainable water resource management.

The MAP initiative is committed to conserving and sustainably managing natural resources while promoting climate resilient agriculture farming practices. The project currently has established 12 demo sites of Green Houses (by introducing climate smart technologies like drip irrigation, hydroponics etc) as an alternative to open area farming. The number of Green Houses is expected to increase in all the intended project sites during the adoption phase, while also escalating the demand for water. Hence, the program emphasizes the importance of evaluating water lens status and formulating comprehensive water and land use plans to pinpoint suitable intervention areas.

To this end, delineated responsibilities entail engaging a proficient firm to conduct water and land use assessments and develop a comprehensive water management plan along with a framework for continuous monitoring. This plan aims to provide guidance to MAP and pertinent governmental initiatives in identifying optimal sites and activities for sustainable groundwater utilization. By fostering the development of a Water Lens Plan,

communities can bolster their capacity to harness natural resources sustainably, thereby safeguarding livelihoods and fostering biodiversity conservation.

## 5. Overall objective

The overarching aim of this study is to evaluate the status and availability of groundwater and land use trends/ patterns across 14 islands in the Northern Atolls (HA, HDh, and Sh); and formulate a comprehensive water and land use plan geared towards enhancing sustainable agricultural practices.

## 6. Objectives of the assignment

- A comprehensive Water and Land Use plan for 14 (refer Annex 2) islands should be developed in close coordination and collaboration with technical team of MOAAW.
- Assess the current status of groundwater and prevailing land use practices.
- Conduct water level testing in potential sites in close coordination with Island Councils (follow a random sampling approach in identifying islands and sites)
- Evaluate the trends and potential scenarios of groundwater utilization, accounting for climate change impacts and heightened demand stemming from population growth and intensified agricultural activities.
- Develop GIS maps delineating the current status, trends, and potential scenarios of groundwater resources.
- Determine monthly safe extraction levels throughout the year from the given water lens, extrapolate data for application on similar islands, and produce maps delineating areas suitable and unsuitable for water extraction, highlighting the necessity for infiltration galleries.
- Contribute to identification of potential risks (including potential reluctance and resistance among beneficiaries) and devise corresponding mitigation measures.
- Prepare a comprehensive and actionable water and land use plan grounded in scientific analysis and participatory input, supplemented by field verification.
- Present the study findings to the MAP, government agencies, and stakeholders.
- Engage in consultations with smallholder farmers, government line agencies, and non-governmental organizations involved in water and land use to gather insights into existing issues and potential solutions.
- Develop a framework for regular and continuous monitoring.
- Ensure participatory consultation processes throughout the study to incorporate diverse perspectives and promote stakeholder engagement.

## 7. Methodology

The study will utilize both primary and secondary sources of information. Primary data will be gathered through interactions with households, communities, stakeholders, and government line agencies. Additionally, results from water level testing will be assessed. Secondary data will be obtained from existing land use plans and related documents. Below are some key considerations while conducting the study:



7.1. Water and Land use must be planned for 14 islands with the focus on conservation of soil, water, and other land resources and new technology of land use.

7.2. The consultancy service should include:

7.2.1. Assessment and documentation of current water and land use practices within the three islands and their relative significance:

- This will be done in a process involving meetings with island council members, Agriculture Division members meetings, and field visits etc.;
- Assess the current water and land use plans of the islands.

Conduct water level testing at potential sites in close coordination with Island Councils, employing a random sampling approach to identify islands and sites.

7.2.2. Identify and document sustainable water and land use practices that promote:

- Sustainable use of water resources
- 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 and limitation of work

8.1. Review previous studies on water lens in Maldivian islands.

8.2. Site visits to 14 islands 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 HOUSEHOLD wells (14) and agricultural wells (14) 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 HOUSEHOLD, 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.

Estimate lens water yield and maximum water extraction monthly across the year.

- 8.10. Using GIS and CAD delineate areas where water cannot be extracted
- 8.11. Provide recommendation if infiltration galleries are need on island both for better infiltration and minimizing flood water.
- 8.12. 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. Draft report for review and inputs: 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

9.1.2. Final report: 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. Including a framework for regular and continuous monitoring.

9.2. Soft copies of high-quality GIS maps: 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.

9.3. Data sets generated from the study, and

9.4. Presentation of results to MAP and government agencies, and in related forum as needed

**10. Reports and schedule of deliverables**

SN	Activities	Month I				Month II				Month III			
		w1	w2	w3	w4	w1	w2	w3	w4	w1	w2	w3	w4
1	Inception report												
2	Literature review												
3	Finalize survey instrument												
4	Data collection												
5	Community consultation												
6	Data analysis												
7	Report writing												
8	First draft report												
9	Second draft report												
10	Finding presentation												
11	Final report												
12	Report sharing												

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

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 HOUSEHOLD, 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 planning and Environment;
- Demonstrated 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
- 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
- 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 selected demo islands stated in Annex 2 of the Expression of Interest (EOI) document.
- 12.2. Expected duration of this assignment is up to 90 working days after signing the contract and conducting an inspection workshop

**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.

## ANNEX 2

#	Name
1	HA. Uligan
2	HA. Kelaa
3	HA. Filladhoo
4	HDh. Neykurendhoo
5	Sh. Goidhoo
6	Sh. Foakaidhoo
7	Sh. Narudhoo
8	HDh. Makunudhoo
9	HDh. Kumundhoo
10	Sh. Kanditheemu
11	Sh. Bilehfahi
12	HA. Hoarafushi
13	HDh. Nolvivaramfaru
14	Sh. Feydhoo

**ANNEX 3**  
**SHORTLISTING CRITERIA**

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