



## TERMS OF REFERENCE

<b>Project name</b>	SCALA programme
<b>Location</b>	Ulaanbaatar, Mongolia
<b>Type of contract</b>	Individual Contractor (IC)
<b>Title of the assignment</b>	Identify fruit and berry tree seed varieties with higher adaptive potential to climate risk and suitability analysis
<b>Post Level</b>	National consultant
<b>Languages required</b>	Fluent Mongolian and English
<b>Duration of Initial Contract</b>	140 days within 12 months

## BACKGROUND

### **Project background:**

The SCALA Programme aspires to contribute to the medium to long-term goal of supporting transformative climate actions in the land-use and agriculture sectors that reduce GHG emissions and/or enhance removals, as well as strengthen climate risk reduction, resilience, and adaptive capacity in participant countries (12 countries incl. Mongolia <https://www.adaptation-undp.org/projects/scala-mongolia>). In terms of the programme-specific objective for SCALA Mongolia, the programme aims to support translation of Mongolia's Nationally Determined Contribution (NDC) and National Adaptation Plan in the Agricultural Sector or NAP-Ag into actionable and transformative climate actions in land-use and agriculture with multi-stakeholder engagement, with a particular focus on Mongolia's livestock husbandry and agriculture sectors. Under Sub Activity 1.1.2.4 of the SCALA Mongolia workplan, a systems-level assessment of the country **"to identify fruit and berry tree seed varieties with higher adaptive potential to natural and regional conditions based on climate risk and suitability analysis as part of the Billion Trees National Movement initiative"** will be carried out for implementation of transformative climate action in land-use and agriculture sector in line with Mongolia's NDC. At the inception phase of the SCALA in Mongolia two key assessments a) baseline survey and b) climate action review matrix (CAR) have conducted to identify the key activities under the programme. The specific purposes of these assessments were a) to translate the NDC and/or NAP into actionable and transformative climate solutions in land-use and agriculture with multi-stakeholder engagement, b) identify a priority NDC and/or NAP climate action (or priority area) in the land-use and agriculture sector that has the potential to contribute to transformative systems change in line with the SCALA programme objective c) assess the transformative potential of the priority climate action based on a set of criteria spanning seven key dimensions of transformation: climate rationale; systems-thinking; private sector engagement; gender equality and social inclusion; sustainable development; a whole-of-government approach; technological and financial innovation and d) review the score of the transformative potential of each climate action assessed. As the outcome to conduct these two assessments, the actions have been defined to the workplan of the SCALA and the assessment **"to identify fruit and berry tree seed varieties with higher adaptive potential to natural and regional conditions based on climate risk and suitability analysis"** is selected as one of the priority actions to implement in Mongolia.

In this regard, UNDP Mongolia CO is seeking a highly experienced national consultant to conduct the assessment on *to identify fruit and berry tree seed varieties with higher adaptive potential to natural and regional conditions based on climate risk and suitability analysis* in Mongolia. Following policies have been adopted with regard to this work: Decree No. 58 of October 4, 2021, "Giving directions to the government" regarding the promotion of the national movement "Terbum Mod" by the President of Mongolia, , Vision-2050, On Establishing Certain Agricultural Regions/Resolution No. 131 of 2018 of the Government of Mongolia, "Vegetables" national program/Draft by Resolution No. 278 of 2017 of the Government of Mongolia/, "Fruits" national program/Resolution No. 223 of 2017 of the Government of Mongolia/,



"Campaign for Sustainable Development of Atar-4 Farming"/Resolution No. 476 of 2019 of the Government of Mongolia, Order No. A/200 of 2015 of the head of the Regional Development Authority  
 "On Approving the Methodology on Assessment of land use suitability.

## DUTIES AND RESPONSIBILITIES

### GENERAL SCOPE OF WORK

- Comprehensive assessment report on specifying climate-resilient fruit and berry tree seed varieties by regions, and suitability analysis including recommendations with the cover areas of Mongolia with regional focuses.

### SPECIFIC RESPONSIBILITIES:

#### 1. System level assessment report

- Define the state of natural and agriculture conditions in the assessment area with focus of estimating domestic needs and demand for fruit and berry of the population of Mongolia, by assessing food security policy
- Assess the fruit and berry tree species that is drought tolerant in the region and identify new species that can be planted to support Food security and climate resilient production.
- Define the observed and/or expected climate-related impacts on natural resources (weather condition, soil, plant species, pests and disease of crops and fruit tree and water etc..) and agriculture systems in the assessment area and assess the current adaptive practices and coping strategies to adverse climate impacts on agriculture systems and effectiveness of them in the assessment area;
- Define existing adaptation and mitigation options and define the differential costs and benefits of such options. Beneficiary from implementation and who might be left worse off.
- Define technology is associated with the implementation of the climate action and define barriers and opportunities.
- Conduct general value chain analysis (VCA), including: i. Private sector landscape and context analysis through secondary research (market size, sector profile, etc.); ii. Food security policy analysis and synergies with the fruit and berry market; iii. Identification of main actors (stakeholder mapping) and processes/activities in the value chain from production to consumption; iv. Regulatory framework; v. Critical needs and challenges; vi. Climate impacts affecting the fruit and berry sector; vii. Market opportunities and trends viii. Value chain financing opportunities.
- Ensure gender inclusiveness: Gender roles and inequalities in agriculture production and processing, including access to and use of resources like land and information; time use; participation in markets and decision-making fora; and benefits like income and well-being; Suitability of existing policy, institutional and legal frameworks to support gender-responsive planning and climate action)

#### 2. Development of methodology

- Identify, rank and map suitable areas for cultivation of fruit and berry trees in western territory
- Develop methodologies for assessing the suitability of land use for fruit and berry trees and to compare other countries methodology.
- Define agrotechnical conditions to adopt the species varieties of fruit trees.

#### 3. Conduct field survey in Western territory of Mongolia, including Khovd, Bayn-olgii, Uvs, Zawkhan and Gobi-Altai provinces.

- Select the species and experiment the selected species of fruit and berry trees applying suitability criteria of similar climate and soil condition, conduct matrix error analysis, comparing the results



of suitable land for fruit cultivation using the methodology that is developed, with the data of field research, and develop recommendations

**4. Through facilitation of the consultation meeting(s) with related national and international stakeholders, develop the assessment that is thoroughly discussed and reflected the concerns of actors;**

Communicate with national institutions for coordination by liaise with the government counterparts, especially MET, CCRCC, MOFALI, and other relevant government agencies and stakeholders and international donors

**5. Organize one day workshop to discuss and validate the Assessment with pertinent stakeholders, reflect the comments and insight into the Assessment from the validation workshop**

- Keep documentation, including maintain electronic folders on meeting minutes, documents obtained during the assessments and other relevant documents.  
Publish the atlas of suitability fruit and berry tree in agroforestry for the western region.

All deliverables shall be submitted in English and Mongolian

**EXPECTED OUTPUTS AND DELIVERABLES**

<b>Deliverables/ Outputs</b>	<b>Estimated Duration</b>	<b>Target due date and Payment</b>
<b>Deliverable 1:</b> Inception report: <ul style="list-style-type: none"> <li>- Plan on how to conduct the assessment including: background info, objectives and key steps, methodologies, list of interviews/call with key stakeholders, data resources, time frame, key outcomes etc.</li> </ul>	Within 20 days from signing the contract	20%
<b>Deliverable 2:</b> Draft system level assessment Report: <ul style="list-style-type: none"> <li>- Define the state of natural and agriculture conditions in the assessment area with focus of estimating domestic needs and demand for fruit and berry of the population of Mongolia</li> <li>- Define the current adaptive practices and coping strategies to adverse climate impacts on agriculture systems and effectiveness of them in the assessment area.</li> <li>- Assess the fruit and berry tree species that is drought tolerant in the region;</li> <li>- Define the observed and/or expected climate-related impacts on natural resources and agriculture systems in the assessment area;</li> <li>- Develop methodologies for assessing the suitability of land use for fruit and berry trees ;</li> <li>- Detailed calculations and data for the assessment to be attached;</li> <li>- Field survey;</li> </ul>	Within 4 months from signing the contract	30%



<p><b>Deliverable 3: Methodology and maps of suitability</b></p> <ul style="list-style-type: none"> <li>- map suitable areas for cultivation of fruit and berry trees</li> <li>- matrix error analysis</li> <li>- methodologies for assessing the suitability of land use for fruit and berry trees</li> <li>- The atlas of suitability of fruit and berry trees in agroforestry</li> </ul>	<p>Within 3 months from the completion of deliverable 2</p>	<p>20%</p>
<p><b>Deliverable 4:</b></p> <p>Final assessment report and experiment results (contemplation of all the outputs during assignment and the reports should consider gender issue and provide gender aggregated info)</p> <ul style="list-style-type: none"> <li>- Final assessment report and suitability assessment after the experimental work</li> <li>- Final reports and meeting minutes with key stakeholders</li> <li>- Validation workshop report</li> <li>- Recommendations and Final assessment report.</li> </ul>	<p>Within 3 months from the completion of deliverable 3</p>	<p>30%</p>

#### **Institutional Arrangement**

6. The contractor shall report to the National Project Coordinator (NPC). He/she is expected to liaise/interact/collaborate/meet with other relevant stakeholders at national and local level including the Ministry of Environment and Tourism, MOFALI, UNDP CO, and others if necessary.
7. No international field mission is envisioned for this position.

#### **Duration of the Work**

8. The consultancy team is expected to work for **140 days** within **12 months**

#### **Duty Station**

9. The team will mostly work remotely (homebased). The staff of the company may be asked to locate at PIU based on the consultation with the NPC. Periodic meetings and other relevant activities will be conducted in the specific venues, and the IC will be asked to be present to documents the events/meetings.

#### **QUALIFICATIONS OF THE SUCCESSFUL CONTRACTOR**

##### **Requirements for the entity**

- This assignment shall be conducted by a legal entity (NGO, company, academic institution, law firm etc.), incorporated at least 5 years prior experience in practical work in fruit and berry plantation and research, policy development, and assessment in climate change, adaption and mitigation, agriculture, forestry sectors
- Have at least 2 prior experiences in projects comparable with the present assignment in terms of scope and complexity
- The entity always has the necessary personnel at its disposal to carry out the assignment in timely manner, confirmed by submitting signed CV/P11
- Highly organized legal entity that produces quality work and meets deadlines.
- Focuses on results and responds positively to critical feedback and welcomes constructive feedback.



- Effective independent work, adaptability, creativity.
- Capable of working in a high-pressure environment with sharp and frequent deadlines, managing many tasks simultaneously.
- Have experience and capacity to facilitate conferences, workshop and meeting
- Exercise the highest level of responsibility and be able to handle confidential and politically sensitive issues in a responsible and mature manner.

**Qualifications of individual team members:**

**1. Team leader/ agriculture management specialist**

- PhD degree or higher in the field of agriculture management, or other relevant fields.
- Overall at least 10 years of experience in the field of agriculture research, fruit research, soil and agro chemistry research, arable farming, crop farming, and climate change;
- Proven experience in advising government and/or UN development partner on Mongolia's development policy prospects
- Proven capacity to coordinate inter-ministerial coordination and cooperation and sharing of information between government agencies, and the private and NGO sectors.
- Fluency in written and spoken English and Mongolian.

**2. Expert 1 – forest or fruit technical specialist**

- Master's or higher degree in agriculture, agronomy, forest, climate change adaptation
- At least 10 years of professional experience in the field of agriculture research on government agencies, CSOs, universities and think-tanks.
- Prior assignments of similar nature, complexity, and scope (sample work to be attached).
- Good analytic and report writing skills.
- Fluency in written and spoken English and Mongolian.

**3. Expert 3 – agriculture, land management and information management specialist**

- Master's or higher degree in agriculture study, IT, GIS, or a related field.
- At least 5 years of professional experience in the field of agriculture research and management on government agencies, CSOs, universities and think-tanks.
- Prior assignments of similar nature, complexity, and scope (sample work to be attached).
- Good analytic and report writing skills.
- Fluency in written and spoken English and Mongolian.

**4. Expert 4 – Finance specialist**

- At least 5 years of experience in climate finance and agriculture management in similar assignments.
- Prior assignments of similar nature, complexity, and scope (sample work to be attached).
- Good analytic and report writing skills.
- Fluency in written and spoken English and Mongolian.

**5. Expert 5 - Environmental specialist**

- At least 5 years of experience in environmental assessments.
- Prior assignments of similar nature, complexity, and scope (sample work to be attached).
- Good analytic and report writing skills.
- Fluency in written and spoken English and Mongolian.

**Language requirements:**

- Fluency in Mongolian language and working knowledge in English is desired

**Price Proposal and Schedule of Payments**

All proposals must be expressed in a lump sum amount. This amount must be “all-inclusive”. Please note that the terms “all-inclusive” implies that all costs (professional fees, communications, publishing fees, laptops or other necessary equipment and software, consumables, etc.) that could possibly be incurred are already factored into the final amounts submitted in the proposal.

The contractor will be paid an all-inclusive Deliverables/Outputs based lump sum amounts over the assignment period, subject to the submission of Certification of Payment (CoP) duly certified and confirmation of satisfactory performance of achieved work (deliverables/outputs) in line with the schedule of payments table above (expected outputs and deliverables).

**Evaluation Method and Criteria**

The company will be evaluated based on the following methodology of **Cumulative analysis**.

The award of the contract shall be made to the company which offer has been evaluated and determined as a) responsive/compliant/acceptable; and b) having received the highest score out of set of weighted technical criteria (70%). and financial criteria (30%). Financial score shall be computed as a ratio of the proposal being evaluated and the lowest priced proposal received by UNDP for the assignment.

**Technical Criteria for Evaluation (Maximum 100 points)**

- Criteria 1. Expertise/experience of the firm – Max 20 points
- Criteria 2. Management structure and qualification of Key Personnel – Max 50 points
- Criteria 3. Proposed methodology and approach -- Max 30 Points

Only bidders obtaining a minimum of 70% of the total technical points would be considered for the Financial Evaluation.

**Annexes**

Annex 1 – Technical evaluation scoring guide

**TOR is prepared by:**

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**TOR is approved by:**

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*Khishigjargal Kharkhuu*

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## Annex 1. Technical evaluation scoring guide

Criteria	Weight	Max. P2int
<b>Technical criteria 1: Expertise of the organization</b>		<b>30</b>
Legal entity with required licenses, incorporated at least 3 years prior		10
Experience and specialization (completion of at least 2 assignments of similar nature and scope demonstrated through submission of references from previous clients or by face pages of previously completed contracts.		20
<b>Technical criteria 2: Qualifications of team members</b>		<b>50</b>
Team member 1/Team leader		15
Team member 2		10
Team member 3		5
Team member 4		10
Team member 5		10
<b>Technical criteria 3: Proposed methodology and timeliness of the implementation plan</b>		<b>20</b>
A brief proposal describing the methodologies, work plan and timeframe		10
Demonstration of quality assurance mechanisms and risk management		10
<b>Technical Score</b>	<b>70</b>	<b>100</b>