



## TERMS OF REFERENCE

<b>Name of service:</b>	Development of working design on reconstruction of permanent forest nursery of Katon Karagai national nature park
<b>Project name and number:</b>	UNDP-GEF Project "Conservation and Sustainable Management of Key Globally Important Ecosystems for Multiple Benefits", 00101043
<b>Contract type:</b>	Contract for Services by UNDP format
<b>Duty station:</b>	Home-based, with trips to Katon-Karagai region, East-Kazakhstan oblast
<b>Period:</b>	5 months from date of Contract signing, appx. July-November 2022 r.

### **PROJECT BACKGROUND:**

The total forest area in Kazakhstan is about 12.6 million hectares, which makes it one of the most forest-rich countries in Eurasia, despite its low forest cover of only 4.6%. Approximately 95% of Kazakhstan's forests (forest-covered areas) are managed by 120 municipal state forestry institutions which are controlled by regional governments (Akimats). 3 main types of forest ecosystems are available in Kazakhstan: alpine mountain forests, riparian (southern coastal) forests and saxaul landscapes (desert and semi-desert shrublands).

GEF-UNDP Project "Conservation and Sustainable Management of Key Globally Important Ecosystems for Multiple Benefits " (hereinafter as the Project) is being implemented since 2018. The Project strategy is to comprehensively address the conservation and sustainable use of forest ecosystems in Kazakhstan by improving the management approaches both within the system of specially protected natural areas (hereinafter as the PAs) and at adjacent landscapes for sustainable use of HCVF. is to holistically address the conservation and sustainable use of forest ecosystems in Kazakhstan, through management approaches including both protected areas and sustainable use of associated HCVF landscapes.

### **JUSTIFICATION:**

One of sustainable afforestation methods round the state forest fund is an effective work of forest nurseries. A forest nursery is an independent enterprise, or a specialized unit purposed for cultivation of planting material. The nurseries are divided into temporary and permanent according to their life duration. The temporary forest nursery is the nursery established for a period not exceeding 5 years. The permanent forest nursery is the nursery established for a period of more than 5 years.

Katon-Karagai State National Natural Park (hereinafter - SNNP) has a permanent forest nursery, located in Medvedsky Forestry (Altai branch). This nursery was established in 1968 with total area of 58.0 hectares and in the Soviet time it supplied the whole republic with planting material of different species. Currently, the seeding area occupies only 20 hectares, and the seeds of Siberian spruce is sown only. A serious problem is that the great weight (80%) of Medvedsky Forestry is under the previous-years crops (from 1992 to 2011) and classifying as overgrown planting materials. This brought to a disturbance of crop rotation and ability to sow the seeds of other species. In general, there is a growth in need of planting material of various species, such as cedar, pine, fir, birch, elm, fruit and shrub species round East Kazakhstan region.

Considering the current unsatisfactory state of the forest nursery, there is need in its reconstruction, i.e. to review the assortment of growing tree and shrub species, irrigation and watering system, planting and

caring schemes and agricultural methods. This will increase the volume of planting material, to meet the need for planting material not only Katon-Karagai region, but also the region, will create new jobs for residents in rural areas with the opportunity to receive income from sales.

To solve these problems, the UNDP project provides for the development of the working design of Medvedsky Forestry reconstruction, given that Katon-Karagai SNNP is a pilot Protected Area (hereinafter – PA) of the project.

Activities on development of working design to reconstruct the forest nursery are included in the Project Work Plan of 2022.

**PURPOSE:** Development of working design on reconstruction of forest nursery in Medvedsky forestry farm at Katon-Karagai State National Nature Park (hereinafter as Medvedsky Forest Nursery).

#### **SCOPE OF WORK:**

1. Field surveys round Medvedsky Forest Nursery. Basic requirements to the field works:
  - 1.1. Compilation of general information, preparation of planning and cartographic material for the surveys, forest-site capacity assessment of the survey area
  - 1.2. Study of current conditions in the forest nursery with trips to:
    - assessment of producing areas of seed and transplant beds;
    - assessment of the irrigation and watering system;
    - analysis and assessment of outbuildings located at nursery territory (nursery buildings and structures, fencing);
    - assessment of the need to reconstruct the power supply system with an indication of the necessary work;
    - laboratory analysis of soil samples to confirm their forest suitability.
  - 1.3. Analysis of existing experience in afforestation and drafting the proposals on planting assortments of tree and shrub species, including a demonstration plot for growing the rare and endangered plant species.
2. Based on results of field surveys, development of working design for reconstruction of Medvedsky Forest Nursery, including:
  - 2.1. A brief description of the object;
  - 2.2. Activities to be designed, including:
    - a) a) schemes and agricultural methods for planting and care;
    - b) volume, sequence and cost of works on creation of green spaces;
    - c) assortment of tree and shrub species, which are selected based on zoned trees and shrubs species to be grown in the region;
    - d) plan of current condition of the territory in combination with the soil plan (scale 1:5000 and 1:10000);
    - e) plan of projected activities in combination with territory organization plans (scale 1:5000 and 1:10000);
    - f) design systems for water extraction, irrigation networks for irrigation, drip systems, irrigation machinery and equipment, and other machinery and equipment for cultivation of tree and shrub species;
    - g) scheming 10kW overhead circuit with the length up to 5 km;
    - h) scheming the transformer substation with capacity up to 160 kW;
    - i) scheming the automated pumping station;
    - j) environmental protection activities;

- k) review of working design, its presentation to and approval with the national park.
- 2.3. Results of laboratory analysis of soil samples to confirm their forest suitability.
- 2.4. Project technical and economic indicators: design capacity of the nursery per year, net cost to grow one unit of planting material, possible amount of profit received, number of jobs.
- 3. Agreement of working design for reconstruction of Medvedsky Forest Nursery with Katon-Karagai SNNP and UNDP Project. Obtaining a positive conclusion by the state environmental expertise.
- 4. Arrangement of approval procedures for working design by Katon-Karagai SNNP.

**EXPECTED RESULTS AND PAYMENT TERMS:**

<b>№</b>	<b>Deliverables</b>	<b>Timeline</b>	<b>Payment</b>	<b>Coordination and approval</b>
1	Field trip made to Medvedsky Forest Nursery: - general information compiled, planning and cartographic material prepared, forest-site capacity assessment of the survey area made, - study of current conditions in the forest nursery made, - analysis of existing experience in afforestation made, proposals on planting assortments of tree and shrub species drafted	8 weeks after the Contract signing  Report	50%	Project Manager
2	Working design for reconstruction of Medvedsky Forest Nursery developed and included: - brief description of the object; - activities to be projected as per SoW.2.2 of the ToR; - results of laboratory analysis of soil samples; - technical and economic indicators as per SoW.2.4 of the ToR; - agreement of working design with Katon-Karagai SNNP and UNDP Project. Obtaining a positive conclusion by the state environmental expertise; - approval of working design by Katon-Karagai SNNP	20 weeks after the Contract signing  Working design, approved by Katon-Karagai GNPP	50 %	Project Manager
	<b>Total:</b>		<b>100 %</b>	

**REPORTING REQUIREMENTS:**

- 1) The interim and final reports must be submitted in Russian in electronic format in MS Word (for Windows files), used font: Times New Roman 12 within the above-given deadlines;
- 2) The reports must be approved by the UNDP Biodiversity Project Manager and will be used as the basis for payments.

**DURATION:** Total duration is 5 (five) months from the date of Contract signing (app. July – November 2022).

**PAYMENT TERMS:** Payment will be made in installments after satisfactory completion of respective deliverables under the “Expected Results and Payment Terms” of the ToR and authorization of results by UNDP Biodiversity Project Manager through a performance certificate and invoice.

**RESPONSIBILITY AND COORDINATION:**

- The Contractor ensures timely and rational planning, execution of works scope and achievement of deliverables as required by the ToR;

- The Contractor ensures full compliance with Contract requirements and is fully responsible for the accuracy and validity of the information provided and for timely provision of reports;
- During performing the works, the Contractor shall report to Project Manager, interacts with UNDP expert on East-Kazakhstan oblast. All actions related to the implementation of this assignment must be coordinated with mentioned project staff;
- The Contractor submits the materials of performed works to the Project (Project Manager) for any comments and approval;
- Working design both in paper version (in 3 copies) and on electronic media should include: explanatory note, chapter with cost estimate, planning material (drawings), chapter with environmental protection;
- The works must be performed with quality and in time, in accordance with ToR's and Contract requirements. In case of poor quality of works by the Contractor, UNDP reserves the right to terminate the Contract unilaterally;
- The Contractor shall provide the UNDP with copies of all developed documents;
- During performing the works, the Contractor undertakes to comply with the legislation of the Republic of Kazakhstan;
- Project reserves the right to make any amendments to the Terms of Reference (up to 10% of the works scope), not modifying the overall work content and Contract amount.

#### **INTERACTION/COOPERATION:**

The list of organizations supposed to work/interact/cooperate/meet with:

- Katon-Karagai SNNP,
- East Kazakhstan oblast site inspection of forestry and wildlife.

#### **TRIPS SCHEDULE\*:**

To perform the scope of works under this assignment, there are scheduled the trips to Katon-Karagai region of East-Kazakhstan oblast. The travel expenses/costs must be included in the financial proposal.

<b>№</b>	<b>Route</b>	<b>Duration</b>	<b>Purpose of trip</b>
1.	Katon-Karagai region, Katon-Karagai SNNP (5 ppl)	10 days	To carry out the field surveys. Data compilation
	Total	10 days	

\*In connection with the COVID 19 pandemic and possible restrictions on free movement within Kazakhstan, the arrangement of travel and events may be limited. In case of introduction of quarantine measures and associated restrictions, the workshops and trips may be postponed. In this case, the Contractor must have all the necessary resources to hold the online events using digital technologies. If the situation described above occurs, the amount budgeted in the bid/proposal for travel/event arrangement will be deducted from the Contract.

**Important!!!** The Contractor is responsible for the proper and timely provision of its employees involved under this ToR with all necessary personal protective equipment in accordance with the current recommendations of WHO and local authorized bodies (masks, gloves, sanitizers, passing the COVID-19 test (if necessary) for the whole Contract period.

#### **QUALIFICATION REQUIREMENTS:**

Service Supplier/Contractor can be a company/ organization duly registered in the Republic of Kazakhstan and that meets the following requirements:

1. Must have legal capacity to enter into agreements (certificate of registration/re-registration, constituent documents);

2. Be solvent, not subject to liquidation, its property is not seized, and its business activities are not suspended constrainedly by laws (statements confirming the absence of debts in tax authorities);
3. Have as minimum 5-years experience in environmental engineering design (incl. forestry) and implementation of environment protection projects (incl. forestry);
4. Have the valid permissions for environmental design and norming, etc.
5. List of similar services performed over the past 5 (five) years in the required field (name of the Customer, subject of services/works, year of performed services, contract amount (if possible), including as minimum 3 reference letters from the previous customers
6. Have material and technical infrastructure (Internet, PCs, office equipment, software) and qualified personnel with required qualification and work experience according to the table below (to be supported with detailed CV and documents confirming the expert's qualifications (diplomas, certificates, etc.);
7. Implementation plan (with team composition and role distribution, description of methodology and works stages)

**Table. Requirements to key team and qualification of experts to be involved under this ToR:**

<b>№</b>	<b>Team composition</b>	<b>Quantity, ppl.</b>	<b>Supposed involvement period, months</b>	<b>Min. acceptable educational level and field of study</b>	<b>Qualification skills/experience</b>
1.	Forestry Engineer (design engineer)	1	5	University degree in the forestry	<ul style="list-style-type: none"> <li>- minimum 5 years of experience in the forestry</li> <li>- minimum 5 years of experience in designing the forest nurseries, green areas, etc.</li> </ul>
2.	Forestry Engineer (design engineer)	1	5	University degree in the forestry	<ul style="list-style-type: none"> <li>- minimum 5 years of experience in the forestry</li> <li>- minimum 5 years of experience in designing the forest nurseries, green areas, etc.</li> </ul>
3.	Environmental expert	1	5	University degree in the biology/ecology/geography	<ul style="list-style-type: none"> <li>- minimum 5 years of experience in studying the flora biodiversity</li> <li>- minimum 3 years of experience with projects on study and monitoring the flora biodiversity, drafting the recommendations on flora conservation and sustainable use. Experience in designing the forest nurseries, green areas, etc.:</li> </ul>
4.	Soil engineer	1	3	University degree in the agrochemistry and soil science	<ul style="list-style-type: none"> <li>- minimum 5 years of experience in the agrochemistry, soil surveying</li> <li>- minimum 3 years of experience in the required field. Skills in sampling and analyzing the soils, subsoils, fertilizers. Skills in</li> </ul>

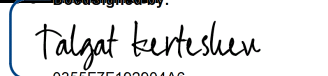
					agrochemical, ecologic and toxicology soil tests
5.	Land surveyor	1	2	University degree in the geodetic surveying/geography. Knowledge of GIS software	- minimum 5 years of experience in topography and geodesy, surveying and designing - minimum 3 years of experience in engineering design organizations on designing the green areas, forest nurseries, etc.
6.	Water engineer	1	2	University degree in the hydrology	- minimum 5 years of experience in the hydrology and with organizations specialized in designing or exploitation of water consumption facilities - minimum 3 years of experience at projected sites, in hydrologic surveys/works, drafting the recommendations
	<b>Total:</b>	<b>6 ppl</b>			

**RECOMMENDATIONS FOR SUBMITTING THE PROPOSAL:**

- 1) Copies of certificate of registration/re-registration and constituent documents;
- 2) Financial reporting over the last 2 years (2020-2021), including the balance sheets, profit and loss report;
- 3) Statements confirming the absence of debts in tax authorities for the last fiscal year;
- 4) Certificate of VAT registration, if Contractor is a taxpayer. If Contractor is not a taxpayer, it is necessary to provide a certificate cleared by Company's Head;
- 5) Company's profile, describing the business activities and expertise (engineering design in the forestry, for forest nurseries, green areas) ;
- 6) A duly completed Application for participation in the bidding, it is necessary to use the UNDP template;
- 7) A brief description of why the Company considers itself the most suitable for works performance; and a methodology that describes what approach will be applied and how the assignment will be accomplished. Work schedule (should include the team composition and distribution of responsibilities, a brief description of methods and procedures to be applied);
- 8) Financial proposal, indicating the full Contract amount, including all direct and indirect costs breakdown according to the template (including VAT/other applicable taxes);
- 9) List of previously rendered services in the required field over the last 5 years (with indicating the Customer, Contract subject, Contract duration, Contract amount (if possible), and as minimum 3 references from previous Customers;
- 10) Confirmation in written on available material and technical infrastructure (Internet, PC,s office equipment, field clothing, field inventory (tents, sleeping bags, herbarium nets, etc.), GPS);
- 11) Methodology and implementation plan (indicating the description of methods and procedures to be applied, team composition and distribution of roles);

- 12) Available experts with required experience and qualification as given in the table above, with submission of detailed CV and documents confirming their qualifications ((diplomas, certificates, etc.). Written confirmation from each employee that he/she will be available during the entire duration of the Contract;
- 13) All other documents confirming the qualifications and experience in accordance with requirements specified in the Section "Required skills, work experience (requirements to Contractor)"

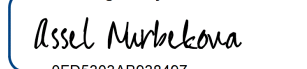
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Date: 23-Jun-2022

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Date: 24-Jun-2022