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## TERMS OF REFERENCE

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| <b>Job title:</b>             | <b>5 National Consultants in conducting Adaptation Technology Needs Assessment, phase II and III in water, energy, health, forestry, transport sectors</b> |
| <b>Type of Contract:</b>      | Individual Contract (IC)   |
| <b>Assignment type:</b>       | National consultant  |
| <b>Section/Unit:</b>          | Environment, Energy and Climate Change Cluster   |
| <b>Duty station:</b>          | Chisinau, Republic of Moldova  |
| <b>Languages requirement:</b> | Romanian and English (Russian is an asset)   |
| <b>Contract Duration:</b>     | May 2021 – December 2022, 68 working days/expert   |
| <b>Payment arrangements:</b>  | <b>Lump sum</b> contract (payments linked to satisfactory performance and delivery of outputs)   |
| <b>Evaluation method:</b>     | Interview of shortlisted candidates  |

### I. BACKGROUND

Climate change is already profoundly impacting the conditions for resource availability and agricultural activities. Over the last decade, the country has experienced a number of extreme events, such as droughts and major floods, along with the incremental effects caused by increased mean temperature, and the uneven distribution of precipitation through the year, which have had negative consequences on the country's economy, and its population wellbeing and health. Severe droughts are recurring more frequently causing significant economic losses. The increasing scope and intensity of extreme events has also resulted in increased frequencies of high-risk situations. By 2050, an increase of 2–3°C in the average temperature, an additional 32 days that exceed the current maximum temperature by 10%, and an additional 12 days with zero precipitation are projected.

The Government sees the National Adaptation Planning (NAP) process as key to achieving the adaptation objectives outlined in its 2014 Climate Change Adaptation Strategy of the Republic of Moldova, and its 2020 Nationally Determined Contributions (NDC), as well as the continued mainstreaming of climate change considerations into its policies and budgeting processes. The proposed project supports the Government of the Republic of Moldova in advancing the second cycle of its National Adaptation Planning process (known as NAP-2). The outcomes of the NAP-2 national adaptation planning processes, are:

- **Outcome 1:** To strengthen and operationalize the national steering mechanism for climate change adaptation (CCA);
- **Outcome 2:** To improve the long-term capacity on planning and implementation of adaptation actions through CCA technologies;

- **Outcome 3:** To improve the mainstreaming of climate change adaptation through the increased alignment of national development priorities, in the priority sectors (forestry, health, energy and transport).

The project will contribute to UNDAF, 2018-2022 outcome #3 (The people of Moldova, especially the most vulnerable, benefit from enhanced environmental governance, energy security, sustainable management of natural resources, and climate and disaster resilient development). Additionally, the project will contribute to the UNDP Country Programme Output 3.3 (National and sub-national governments have improved capacities to integrate resilience to climate change and disasters into development plans and practices to reduce population's vulnerability). Other than that, the project will contribute to the National Development Strategy "Moldova 2030" through: a) reduction of energy consumption by increasing energy efficiency and using renewable energy sources, and b) agriculture and rural development: competitiveness of agri-food products and sustainable rural development.

The preliminary work under the first cycle of the NAP (known as NAP-1) supported the development of a NAP as a process, conceptualizing and developing its elements, including the national steering mechanism, and laid down the groundwork towards long-term adaptation planning. Albeit the progress, significant gaps remain in the integration of climate change considerations into many of the development policies of the national priority sectors and their associated budget priorities. National appropriations for CCA remain limited.

The NAP-2 goals will be achieved within two parallel implementation tracks. The first track implemented by UNDP expands and deepens the national approach developed under the NAP-1 and strengthens synergies both vertically, at different levels of the governance, and horizontally, between the sectors affected by climate change to reduce duplication of efforts, pool scarce resources for effective use, and ensure a coherent and comprehensive approach to the integration of CCA responses into development planning, while the second track will focus on adaptation in the agriculture sector and will be concurrently implemented under the auspices of FAO.

The National Designated Authority has coordinated with the UNDP and the FAO country offices to ensure the complementarity and congruency of the activities and exchange, as appropriate. By its very nature, the NAP-2 will facilitate integration of CCA into existing strategies, policies and programmes and establish a strong foundation for the integration of methods, tools and information systems in day-to-day planning activities to effectively inform decision-makers on the climate risks, and to enable the informed formulation of resilient projects and financing strategies.

The Project Sub-Outcome on up-taking Adaptation Technologies aim to expand the CCA capacity building activities with the development of a CCA Technology Framework that articulates the medium- and long-term objectives needed to acquire technological know-how to address CCA needs, and achieve widespread and transformational technology transfer at sub-national and sector levels. Within the Technology Framework, technology assessments will provide information on technology needs. The prioritized technologies will be included in the formulation of gender responsive CCA investments proposals for further finance mobilization.

The Technology Needs Assessments (TNA) are central to the work of Parties to the UNFCCC Convention and present an opportunity to track an evolving need for new equipment, techniques, practical knowledge and skills, which are necessary to reduce the vulnerability of sectors and livelihoods to the adverse impacts of climate change. In this context, UNDP Moldova is seeking to recruit a team of 5 (five) national experts

to support country participatory TNA process for adaptation in water, health, transport, energy, forestry sectors. The outcomes of the assignment will contribute to the achievement of adaptation goals of Moldova stated in its updated NDC (2020) while meeting the national targets for SDGs 13,7,9, 3,15,6.

## **II. OBJECTIVES AND EXPECTED DELIVERABLES OF THE ASSIGNMENT**

The main objective of the assignment is to undertake Technology Need Assessment with regard to climate change adaptation in water, health, transport, energy and forestry sectors, ranging from engaging with the stakeholders, identification of technology needs, its prioritisation and assessment, to the development of Technology Action Plan and producing Project Ideas.

### **Specific tasks:**

The National Consultants shall apply a participatory approach in the TNA regarding climate adaptation of 5 (five) sectors of Moldova's economy: water, transport, energy, health, and forestry involving a wide range of stakeholders and ensure a multi-sector and multi-disciplinary scope.

In close collaboration with the TNA Team Leader and the other TNA consultants, the National Consultants will support and facilitate sectoral Work Group (WG) activities. She/he will also ensure communication with sectoral Working Groups, other TNA team members, outreach to stakeholders on work products. More specifically to:

### **1. Identify priority technologies for climate adaptation based on the following steps:**

- provide an *overview of possible adaptation technology options* in the related to the assignment sector responsive to sectoral needs and emphasizing their adaptation potential based on identified sectoral vulnerabilities and currently (baseline) applied technologies referring to climate change,;
- prepare the Technology Fact Sheets (TFS) for the *Long List of adaptation technology options* (8-12 technologies) for *the related to the assignment sector* with the support of sectoral WG,;
- propose, discuss, and approve with WG the *criteria of technology prioritization* for related to the assignment sector;
- carry out, through a participatory process, sector level *technology prioritization exercise* and formulate the results of technological prioritization for related to the assignment sector.

### **2. Prepare the TNA report according to the above-mentioned steps of technology prioritisation**

### **3. Conduct barrier analysis and propose the Enabling Framework for the deployment and diffusion of the sector's top three prioritised technologies according to the following steps:**

- undertake the *analysis of market and barriers* for development, deployment and diffusion of priority technologies chosen for adaptation;
- produce *market maps and problem trees* for each of the prioritised technology;
- describe linkages of the identified barriers;
- identify measures to overcome barriers;
- propose Enabling Framework to overcome identified barriers for the chosen technologies.

### **Cross-cutting issues**

In case prioritised technologies are complex and have a cross-cutting nature, please, provide common enabling policies and actions which can help address the barriers for technologies from multiple sectors.

**4. Prepare climate change adaptation Barrier Analysis and Enabling Framework (BAEF) report for the prioritised technologies.**

**5. Prepare a Technology Action Plan (TAP) for each prioritised technology**

In collaboration with the sectoral Work Group, the National Consultant will provide a short comprehensive description of the action plan for sectoral adaptation technologies, which can be read and understood as a stand-alone document - *the Technology Action Plan (TAP)*. The NC will:

- develop a *Technology Action Plan* for deployment and diffusion of prioritised technologies in the country;
- formulate the TAP based on the following main components: sector overview, ambition for the TAP, actions and activities selected for inclusion in the TAP, stakeholders and timeline for implementation of TAP, Estimation of Resources Needed for Action and Activities, Management Planning.

**6. Produce sectoral Report on TAPs and compilation of sectoral CCA Technology Roadmap.**

**7. Formulate, based on TAP, the Project Ideas (PI) for the prioritised technologies** as concrete actions supporting the realisation of the overall target indicated in the TAP for the sector. The Project Ideas should contain description/background; objectives; components and indicative activities; expected results, partners.

**8. The TNA consultants will have the responsibilities to attend capacity building events on applied methodological approach in sectoral CCA TNA.**

| No. | Deliverables   | Tentative timeframe  |
|-----|--|--|
| 1   | Report on adaptation technology options in the related to the assignment sector and their adaptation potential accompanied by TFS, not less 8-12 per sector approved by the Project Manger | May 2021, <b>10 w.d.</b>   |
| 2   | Report on development of prioritisation criteria and their consultation with sectoral working groups approved by the Project Manager   | June 2021, <b>4 w.d.</b>   |
| 3   | Report on technology identification and prioritisation (1 <sup>st</sup> – 2 <sup>nd</sup> drafts) approved by the Project Manager  | July- August 2021, <b>10 w.d.</b>  |
| 4   | BAEF Report for sectoral adaptation consulted with sectoral Working Group (1 <sup>st</sup> - 2 <sup>nd</sup> drafts) approved by the Project Manager                                       | 1-st draft- December 2021, <b>6 w.d.</b><br>2-nd draft- March 2022, <b>13 w.d.</b> |
| 5.  | Reprot on Technology Action plan for prioritised CCA sectoral technologies (2-3 technologies) consulted with sectoral the Working Group and approved by the Project Manger                 | September 2022, <b>12 w.d</b>  |

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| 6. | Project Ideas for prioritised technologies according to the provided template approved by the Project Manager   | November 2022, <b>5 w.d.</b> |
| 7. | Sectoral Report on TAPs and compilation of sectoral CCA Technology Roadmap approved by the Project Manager and Project Steering Committee                                       | December 2022, <b>5 w.d.</b> |
| 8. | Final Report on the assignment incorporating the description of undertaken tasks and their outputs, with concluding remarks and recommendations approved by the Project Manager | December 2022, <b>3 w.d.</b> |

This is a part-time consultancy. The timeframe for the work of all 5 consultants is planned for May 2021–December 2022.

### III. INSTITUTIONAL ARRANGEMENT

**Management Arrangements:** The consultants will work under the guidance of the Team Leader for the 2nd project component and Project Manager.

**Reporting:** The consultants will provide elaborated Reports on deliverables in Romanian or English languages according to the agreed timeframe and deliverables table, in electronic copies. The deliverables should be approved by the Project Manager and Project Steering Committee.

**Duty Station:** No field trips are envisaged for this assignment.

### IV. REQUIREMENTS FOR EXPERIENCE AND QUALIFICATION

**Academic Qualification:**

- University degree in water resources, transport, health, forestry, energy or other relevant fields related to the assignment

**Experience:**

- At least 5 years of working experience in the related to the assignment sector;
- Extensive knowledge of - and experience with - climate change relevant policies and technologies at the sector and national level;

**Competences:**

- Familiarity with national development objectives and needs of the selected sector;
- Familiarity with climate change science, potential climate change impacts and adaptation needs in the selected sector;
- Good coordination and facilitation skills, as well as proven analytical capabilities and excellent writing skills;
- Experience in the usage of computers and office software packages (MS Word, Excel, etc);

**Language requirements:**

- Fluency in Romanian and good knowledge of English is required for this assignment, Russian is an asset.

Proven commitment to the core values of the United Nations, in particular, respecting differences of culture, gender, religion, ethnicity, nationality, language, age, HIV status, disability, and sexual orientation, or other status. Please mention in CV if you belong to the group(s) under-represented in the UN Moldova and/or the area of assignment.

UNDP Moldova is committed to workforce diversity. Women, persons with disabilities, Roma and other ethnic or religious minorities, persons living with HIV, as well as refugees and other non-citizens legally entitled to work in the Republic of Moldova, are particularly encouraged to apply.

## V. PAYMENT MODALITIES

The consultants will organize and facilitate the implementation of all activities as described above; his/her payment will be lump sum amount based, disbursed in several instalments, upon submission and approval of deliverables and certification by UNDP Moldova Project Manager that the services have been satisfactorily performed.

## VI. APPLICATION PROCESS

Applicants shall submit the following documents:

- Offeror's Letter confirming Interest and Availability, including financial offer, according to Annex 2;
- CV, including information about experience in similar assignments;
- Brief description of why the individual considers him/herself as the most suitable for the assignment **(please indicate to which sector are you applying for (i.e. water, energy, health, forestry, transport sectors)).**

### Important notice:

The applicants who has the statute of Government Official / Public Servant, prior to appointment will be asked to submit the following documentation:

- a no-objection letter in respect of the applicant received from the government, and;
- the applicant is certified in writing by the government to be on official leave without pay for the entire duration of the Individual Contract.

A retired government official is not considered in this case a government official, and as such, may be contracted.

## VII. ANNEXES TO THE TOR

Annex 1- Individual Consultant General Terms and Conditions

Annex 2- Offeror's letter confirming interest and availability, including financial proposal (template).