



*Empowered lives.
Resilient nations.*

TERMS OF REFERENCE

| | |
|------------------------------|---|
| Job title: | International Consultant to verify the suitability of the EU harmonized codes for infrastructure assets and structures in the Transport and Construction sectors to the expected future hydro-meteorological parameters in the Republic of Moldova |
| Type of Contract: | Individual Contract (IC) |
| Duty station: | Home-based |
| Section/Unit: | Environment, Energy and Climate Change Cluster |
| Language requirement: | English |
| Contract Duration: | July 2021 – November 2021, 30 working days |
| Payment arrangements: | Lump sum contract (payments linked to satisfactory performance and delivery of outputs) |
| Evaluation method: | 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 several extreme events, such as droughts and major floods, along with the cumulative effects caused by increased mean temperature and the uneven distribution of precipitation throughout 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 have 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 another 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. Therefore, the proposed project supports the Republic

of Moldova's Government 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, 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" by ensuring resilience to climate change by reducing risks related to climate change and by facilitating adaptation in six priority sectors - agriculture, water resources, health, forestry, energy, and transport.

The preliminary work under the first cycle of the NAP (known as NAP-1) supported developing 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. Despite the progress, significant gaps remain in integrating climate change considerations into many of the national priority sectors' development policies 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 efficient use, and ensure a coherent and comprehensive approach to the integration of CCA responses into development planning. In contrast, the second track will focus on adaptation in the agriculture sector and will be concurrently implemented under FAO's auspices.

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 the integration of CCA into existing strategies, policies, and programs and establish a strong foundation for the integration of methods, tools, and information systems in day-to-day planning activities to inform decision-makers on the climate risks effectively and to enable the informed formulation of resilient projects and financing strategies.

Climate change already has far-reaching impacts on infrastructure and can put their operation and reliability partially at risk. This trend is likely to accelerate in the coming decades. The severity of climate impacts on infrastructures will vary according to individual locations and their geophysical risk exposure, the existing adaptive capacity and resilience, and the level of regional economic development. Long- and medium-term climatic trends (e.g., increasing average temperatures, modified rainfall patterns) and an inherently rising frequency of extreme weather events impact differently from site to site. Therefore, adapting infrastructure usually requires a complex, site-based analysis of different trends and impact patterns.

When revising existing or building new structures, technical standards are used in every phase during the lifetime cycle of an infrastructure. Standards can apply during the planning phase, the design phase, the construction phase, and the maintenance phase. Thus, standards have an important impact on the resilience of products, processes, and construction. However, in the context of the current climate challenges related to long freeze-thaw cycles, torrential rainfall, long periods of heat and extremely high temperatures in summer caused by global warming, updating norms and standards for infrastructure assets in transport and construction sectors became an imperative.

In this context, the UNDP Moldova is seeking to recruit an international consultant to verify the suitability of the EU harmonized codes for infrastructure assets and structures in the Transport and Construction sectors to the expected future hydro-meteorological parameters in Moldova and to provide recommendations on upgrading mentioned documents by mainstreaming climate change considerations.

II. OBJECTIVES AND EXPECTED DELIVERABLES OF THE ASSIGNMENT

This assignment's main objective is to ensure climate resilience of the infrastructure assets in the Republic of Moldova, by considering the expected future hydro-meteorological parameters into the design and construction of technical and infrastructure assets for the transport and construction sectors.

Specific tasks:

The consultant(s) will work in close cooperation with the Project pool of consultants and Team Leaders. The specific tasks are presented below:

- Liaise with national stakeholders, and guide national experts on the scope of the current assignment;
- Familiarize with expected future hydro-meteorological parameters and associated climate risks in the Republic of Moldova;
- Review local construction standards (codes, regulations, technical norms, etc.) for at-risk infrastructure and structure assets in the Transport and Construction sectors;
- Provide an overview of EU harmonized codes for infrastructure assets and structures in the Transport and Construction sectors to the expected future hydro-meteorological parameters;
- Assess strengths, weaknesses, gaps of local construction standards against EU harmonized codes for infrastructure assets and structures in the Transport and Construction sectors;
- Develop recommendations on the alignment of legal framework and technical regulations in the transport and construction sectors to the European technical regulatory framework for increasing the resilience of the sectors;
- Develop a detailed Roadmap for regulations/standards update, including a prioritization of documents to be updated, based on vulnerability to climate change and necessity to adapt;
- Assess human and financial resources required for alignment of legal framework and technical regulations in the transport and construction sectors to the European technical regulatory framework;
- Conduct at least one workshop for presenting the best practices on climate resilient infrastructure and the results;
- Integrate the recommendations/comments received during the consultation workshops in the Final Report.

| No. | ables | Deadline |
|-----|--|-------------------------|
| 1 | Inception Report detailing methodology and work plan for the assignment approved by the Project Manager | July 2021 2 w.d. |
| 2 | Assessment report on strengths, weaknesses, gaps of local construction standards against EU harmonized codes for at-risk infrastructure assets and structures in the Transport and Construction sectors, approved by the Project Manager | August 2021 13 w.d. |
| 3 | Workplan/strategy for alignment of national codes with the EU relevant ones to address gaps for at-risk assets in the Transport and Construction sectors, approved by the Project Manager | October 2021 10 w.d. |
| 4 | One workshop for presenting the best practices on climate resilient infrastructure and the results conducted | October 2021 2 w.d. |
| 5 | Final Report on assignment implementation approved by the Project Manager | November 2021 3 w.d. |

Management Arrangements:

The consultant will work in cooperation with the Team Leaders and under the supervision of the Project Manager. All communications and documentation related to the assignment will be in English. The Project Manager should approve the Deliverables.

Financial arrangements:

Payments will be disbursed in several instalments upon submission and approval of deliverables and certification by the UNDP Moldova Project Manager that the services have been satisfactorily performed.

Confidentiality:

Materials provided to the Individual Consultant and all the proceedings within the consultancy contract shall be regarded as confidential, both during and after the consultancy. Violation of confidentiality requirements may result in immediate termination of the contract.

III. REQUIREMENTS FOR EXPERIENCE AND QUALIFICATION

Academic Qualification:

- University degree in construction, /transport /environmental sciences, or other fields relevant to the assignment.

Experience:

- At least 7 years of progressively responsible professional experience with EU technical regulatory framework (e.g., construction, transport codes/norms/standards);
- Demonstrated experience in integration of climate change aspects into normative documents for transport and construction sectors;
- Previous Experience in developing/implementing technical regulatory framework in Europe and/or Eastern Europe

Competencies:

- Demonstrated experience and knowledge in review and elaboration of normative documents in construction and/or transport sectors;
- Familiarity with reports and guidance documents prepared by international organizations on mainstreaming climate change adaptation considerations in construction codes and standards;
- Knowledge of international climate-related political frameworks, especially of the EU framework;
- Demonstrates excellent organizational skills and a proven ability for multi-disciplinary analysis.

Language requirements:

- Fluency in English is required for this assignment; knowledge of Romanian or Russian will be an advantage.

IV. PAYMENT MODALITIES

Payment to the individual contractor will be made based on the accepted deliverables, and upon certification of satisfactory completion approved by the UNDP.

V. APPLICATION PROCESS

Applicants shall submit the following documents:

- Offeror's Letter confirming Interest and Availability with the financial proposal (in USD, specifying the total lump sum amount). Financial proposal template prepared in compliance with the template in Annex 2.
- CV, including information about experience in similar assignments;
- Brief description of why the individual considers him/herself the most suitable for the assignment.

Incomplete applications will not be considered.

Important notice:

The applicants who have the statute of Government Official / Public Servant before the 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 individual contract's entire duration.

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

VI. ANNEXES TO THE TOR

Annex 1- Individual Consultant General Terms and Conditions

Annex 2- Offeror's Letter confirming Interest and Availability including the financial proposal