



Funded by
the European Union

EU4Environment – Water Resources and Environmental Data

TERMS OF REFERENCES FOR LOCAL CONTRACTOR

UPDATING OF THE ARMENIAN STATE WATER CADASTRE INFORMATION SYSTEM

APRIL 2023

1. Financing

European Union (ENI/2021/424-550)

Co-financing by Austria (Austrian Development Agency) and France (Artois Picardy Water Agency)

2. Procedure

Simplified procedure according to EU PRAG¹

3. Contracting Authority

International Office for Water (OiEau) - France

4. Nature of contract

Service contract

5. Time period of implementation

May 2023 – April 2024

6. Contract amount (optional)

Max. amount: 36 000 EUR

¹ Practical Guide to Contract Procedures for EU External Actions

7. Background information

I. Background and Objectives

The Programme “EU4Environment – Water resources and Environmental data” (hereinafter - the Programme) aims to operationalise several key mechanisms to preserve natural resources, enabling countries’ green growth in line with the European Green Deal and a post-COVID-19 green recovery. This will contribute towards longer-term environmental, climatic, and socio-economic resilience, and improved human health and wellbeing, as well as the achievement of the Sustainable Development Goals (SDGs).

The Programme’s specific objectives are:

- Specific Objective 1 “Water resources management”: Water policies and practices support more sustainable use of freshwater resources and help reduce the adverse impacts of human activities on water quality and ecosystems.
- Specific Objective 2 “Environmental statistics and open data”: The use of sound environmental statistics by the partner countries is extended and improved, and better availability of policy-relevant data to decision-makers and citizens is ensured.

The Programme, co-financed by the European Union, is implemented in close cooperation and coordination with the Implementing Partners: three Member State agencies: Umweltbundesamt GmbH (also called “UBA” or “Environment Agency Austria”), Austrian Development Agency (ADA) and International Office for Water (OiEau, France) as well as two international organisations (OECD and UNECE).

This assignment concerns the updating of the Armenian State Water Cadastre System (SWCIS2) for Water Resources Management Department under Ministry of Environment.

On the basis of an updated database structure, the contract aims to develop online set of data management functionalities such as for data capture, data integration, data processing allowing to answer to the main needs expressed by the Water Resources Management Department, the public and integrated with other entities.

II. Scope of work

The tender includes:

- The development of a web application including:
 - A PostgreSQL relational database (table structures and relationships), including transfer of all existing data
 - Note 1: The structure of the PostgreSQL database will be made available to the consultant at the beginning of works;
 - Note 2: All available datasets (including GIS layers) through the existing water cadastre database should be imported in the new central “PostgreSQL” database by the consultant before the starting of development works
 - Online forms allowing data capture and update of data related to :
 - Applications and permit management, this including in particular data on :
 - Applicants
 - Applications
 - Permits
 - Water infrastructures

- Tools for automatic data importation of:
 - Datasets on actual water use and actual water discharge (if relevant)
 - Monitoring datasets from automatic stations and from analytical devices (if relevant)
 - Monitoring datasets from hydrological monitoring and water quality monitoring database of HMC (if relevant)
- On line tools for specific calculation (case of statistical values and of quality index calculation) :
 - Calculation of statistical values for annual water use
 - Assessment of surface water quality classes according to GOA resolution #.... (2017)
 - Other calculation based on Water Department requests
- On line tools for report production following specifications
- APIs for water cadastre data availability (a list with characteristics of APIs will be provided)
- On line management of access management rights based on “login name-password” pairs
- The installation on a server of EKENG and test of the various functionalities of the SWCIS2 at the level of the main users;
- The training of the main users and the system administrators
- The production of documentation for the final users
- The production of documentation for the administrators with all elements allowing the beneficiaries to maintain and continue the development of the database and of the tools by themselves.

After development, implementation and training, the beneficiary will validate the results on the basis of clear indicators defined within the contract.

The consultant will then provide 2 soft copies (1 for the beneficiary, 1 for OiEau) of a synthetic report (2 pages) summarizing what was done, as well as a soft copy of all deliverable reports (MS/World format) and of all software application developed, with all necessary administrative passwords and procedure allowing a reinstallation / revision and maintenance/ adaptations of the applications.

Providing of these elements and their validation will be required before any payment of the consultant by OiEau.

Main global requirements for the system

- All interfaces and reports have to be both in Armenian and English
- The application will have to allow the capture of all data specified by the WRMD as important
- All data is stored in a unique database that will be implemented under PostgreSQL on a Web server managed by MoE.
 - Web server is indeed required for access to data and automatic input of data from external systems
- The application(s) will be in open source and well documented without license and without any notion of property by the developer: the objective is that that WRMD could maintain and develop their application by themselves.
- All design of forms and report presented in this document are given as draft proposal: all forms and reports design should be revised and validated with the beneficiary and OiEau before development.
- Out of public use, a login/password to be given when opening the online application, should allow access to specific functionalities and limit the access to others depending on their role
 - For roles management (Creation of data, Modification, Consultation) the following profiles should be considered

- Specific manager
- Sampling operator
- Analyzing
- Expert
- Public user
- System administrator

III. Schedule & implementation modality

Deliverables	Languages of deliverable	Due date for the draft report (M = signing of the contract)	Final version
<p>1. Report about tools and detail outputs agreed with beneficiary and OiEau concerning :</p> <ul style="list-style-type: none"> - Importation of existing data into new database structure - Forms for data capture (applicants, applications, permits, ...) - Tools for automatic data importation - On line tools for specific calculation - On line tools for report production following specifications - APIs for water cadaster data availability - Report production - Access management procedures following password - Other related modules 	Armenian /English	M+4	M+5
<p>2. User manual, Users training and installation of the databases and system for test at the level of the main final users</p>	Armenian /English	M+5	M+7
<p>3. Adaptation and final installation of databases and system at the level of the beneficiary</p>	Armenian /English	M+7	M+10
<p>4. Administrator manual and training of systems administrators</p>	Armenian /English	M+10	M+12

Works shall be implemented by an Armenian company or group of NGO(s), university, research institution, etc. that are not representing the project beneficiaries. The studies will be closely coordinated, assisted and monitored by the project team (OiEau) and the beneficiary (Water Resources Management Department). Close coordination shall be ensured with the beneficiaries who will take full ownership of the Armenian State Water Cadastre System produced.

Technical issues will be discussed regularly with the beneficiary and project team (if needed).

Requirements for the Contractor:

- The Contractor’s team shall have professionals of the appropriate qualification level to perform the work.
- The Contractor agrees that in carrying out the work, it shall maintain regular communication and agree on solutions with the Beneficiary, the agencies concerned and the Acquirer’s technical specialists and advisers.
- The Contractor agrees that he is ready to provide relevant information support regarding the development process, to provide appropriate explanations to all interested parties as agreed with the Beneficiary and the Acquirer, as well as to participate in events that may be held by the Beneficiary or the Acquirer to ensure the high quality of the work.
- The Contractor may involve subcontractors and other contractors, provided that they submit the relevant documents/certificates confirming their qualifications.
- The Contractor shall notify the Beneficiary and the Acquirer of involving subcontractors before signing the contract; the Beneficiary and/or the Acquirer, for their part, shall have the right to refuse the proposed subcontractors.
- The risk of accidental destruction of, or accidental damage to, the result of the work (its stages) before its transfer to the Beneficiary and the Acquirer pursuant to the Certificates shall be borne by the Contractor
- The Contractor shall sign a non-disclosure agreement (NDA) along with the Work Contract.
- In case of involving subcontractors, the Contractor shall be fully liable to the Beneficiary in case the subcontractor breaches the NDA.
- After the completion and transfer of all works, the ownership is fully transferred to the Beneficiary
- All works must be based on open source code and well documented
- All logins, passwords and development codes must be transferred to the Beneficiary and the Acquirer, and documented to ensure reinstallation and possible adaptation by the Beneficiary.

All documents shall be signed by an authorised person and sealed (for legal entities with a seal). All pages shall bear the initials of the authorised person signing the document.

The repartition of the use of the budget in function of the outputs is indicated as follows:

Deliverables	% of allocated budget
Deliverable 1	40
Deliverable 2	20
Deliverable 3 & 4	40
TOTAL	100

Contact details:

Beneficiary:

Head of Water Resources Management Department, WRMD
Ms Gayane Hovsepyan, g.hovsepyan@env.am

Project team:

Local Representative of the Programme “EU4Environment Water and Data” in Armenia:
Mr Vahagn Tonoyan, Senior Water Management and Coordination Expert, v.tonoyan@eu4waterdata.eu

The responsible thematic leaders:

Mr Paul Haener, International Office for Water, p.haener@oieau.fr
Ms Marta Boyko, International Office for Water, m.boyko@oieau.fr

IV. Participation to the tender

Interested parties (individual and legal persons) are invited to inquire the full tender dossier containing instructions and further information about the tender procedure from Ms. Ilke CICEKOGLU, Project Assistant, International Office for Water (OiEau) and Mr Paul Haener, Project Manager, International Office for Water (OiEau).

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Deadline for submission of the technical and financial offer is **21 April 2023, 18:00 CET.**