LAND REGISTRATION AND PROPERTY VALUATION PROJECT
Project ID No. P161238

Component C - Land Administration System Strengthening
C 3.5 Capacities Building in National Spatial Data Infrastructure

Terms of Reference
Local Consultant for Spatial Data Harmonization for the Roads

INTRODUCTION

The Government of Moldova received a credit from the World Bank Group - International Development Association in the amount of 30.1 million Euro toward the cost of financing Land Registration and Property Valuation Project (LRPVP), aimed at improving the quality of the land administration and property valuation systems and to enhance transparency of the property taxation system.

The Project consists of four components: (A) First Property Registration; (B) Property Valuation and Taxation; (C) Land Administration System Strengthening; and (D) Capacity Building and Project Management.

Component A 'First Property Registration' will support the first registration of public and private land in Moldova and strengthen the data quality for records already in the land register. This component will also organize mandatory public displays and public awareness campaigns to ensure citizens are engaged and aware of the procedures, activities, and benefits during first property registration

Component B 'Valuation' will support extending the system of mass valuation to incorporate those properties not currently included and to carry out a revaluation of the properties that are already in the mass valuation system but have not been revalued since 2008.

Component C 'Land Administration System Strengthening' will support the strengthening of the land sector in Moldova by facilitating policy dialogue and conducting a review of the existing institutional and regulatory frameworks, proposing improvement where possible. It will also encourage a development of simplified business processes and modernization of cadastre services through use of ICT, and support development of NSDI.

Component D 'Capacity Building and Project Management' will support capacity building at stakeholder agencies and institutions to ensure the smooth implementation of project activities and support project sustainability, as well as provide support for project implementation. A full description of the Project is provided in the document "Project Appraisal Document" (PAD)[1] and inancing Agreement (FA)[2].

[1] http://documents.worldbank.org/curated/en/491971535859109015/pdf/Moldova-Land-PAD-08132018.pdf
[2] http://documents.worldbank.org/curated/en/253281538510180437/pdf/ITKWB532331-20189021552.pdf

1. Background

The Republic of Moldova has developed a roadmap for the implementation of a National Spatial Data Infrastructure (NSDI). The implementation plan for the National SDI has been created in accordance with the UN-GGIM Integrated Geospatial Information Framework (IGIF), its principles, and methodologies (see https://ggim.un.org/IGIF/). The aim of the National SDI is to deliver optimal use of geospatial information to support more effective and sustainable social, economic, and environmental development. The overall target outcome for the National SDI is to lead to the efficient, equitable, and optimal utilization and management of geospatial information applied across all sectors of the economy, for the benefit of the government and citizens of Moldova.

The Agency for Land Relations and Cadastre (ALRC) is the coordinating authority for the National SDI and is responsible for implementing policy in this domain.

28 Agreements of cooperation was signed with public entities during the last 10 years, including State Road Administration (custodian agency of road data).

A Steering Committee (the SDI Council) and some SDI Working Groups have been established. Moldova has a National SDI geoportal (geoportalinds.gov.md) and national metadata profiles have been adopted for spatial data and for spatial data services through Government Decision No 738/2017[3]. A Government Decision No 683/2018[4] on approval of the regulation on the rules applying to the interoperability and harmonization of spatial data sets and services has been adopted. This includes ISO standards and data standards compliant with the EU INSPIRE[5] Data Technical Specifications for Geographic information

A significant milestone for the National SDI was the publication of Law 254 of 2016[6] on national spatial data infrastructures. This Law, together with various amendments, Government Decisions and Government Orders, provides the general rules, together with the necessary political endorsement, regarding the establishment of the National SDI. The scope of the Law includes all spatial data sets as specified in the annexes to the Law, data content, data availability, data sharing, metadata, interoperability of the data, data services, data access, data use, together with the relevant responsibilities of the public entities and third parties.

Over recent years the development of the National SDI has progressed through support from various donors including the United Nations, World Bank, European Union, and the Norwegian National Mapping Authority (Kartverket) through an ongoing engagement with its cooperation partner ALRC.

The National SDI 'road-map', prepared under the direction of ALRC, comprises a number of coordinated reports[7]. These reports have been prepared in accordance with the IGIF framework. These include:

a. IGIF Baseline Assessment - this report provides an assessment of the "as is" position of geospatial information management in Moldova structured around the IGIF pathways

[3] https://www.legis.md/cautare/getResults?doc_id=101889&lang=ro

[4] https://www.legis.md/cautare/ getResults?doc_id=108815&lang=ro

[5] https://inspire.ec.europa.eu/

[6] https://www.legis.md/cautare/getResults?doc_id=105790&lang=ro

[7] Copies of these reports may be available from ALRC on request

b. IGIF Geospatial Alignment to Policy Drivers - this report aligns the Government's strategic objectives and international commitments to specific spatial use cases (applications)
c. IGIF Socio-Economic Impact Assessment - this report provides an assessment of the socio-economic business case for investment in a National SDI from both qualitative and quantitative perspectives. It is informed by the outputs from the two reports outlined above
d. IGIF Action Plan - this report has developed the output from the previous reports and created a high-level geospatial strategy together with a corresponding costed plan/roadmap for the National SDI. This is presented as a series of interdependent policy interventions and implementation projects and includes actions linked to GGIM strategy pathways, proposed timescales, resource needs, together with an indicative forecast of costs.

In addition, complementing the development of the IGIF reports outlined above, a parallel activity by a team representing EU ENI 2020 (referred to as Twinning project MD 16 ENI OT 01 19) has completed a series of missions with ALRC. The objective of these missions is to identify opportunities for improvements to Spatial Data Services in Moldova based on EU standards viz 'Infrastructure for Spatial Information in Europe' (Inspire)[8]. The specific objective of the Twinning Project is to enhance e-Government through impoved sharing of spatial data and cooperation between the authorities in line with EU standards and international best practice. A key component of this is the need for the harmonization of the NSDI datasets and guidelines and a proposed methodology will be piloted in accordance with requirements identified as part of the EU Twinning Project[9].

Through engagement with ALRC the objective is to provide support to Moldova with the implementation of its Integrated Geospatial Information Framework (IGIF) and thereby provide support for the continued development of the National SDI.

2. Purpose

The purpose of this role is to support ALRC in its use of international standards for spatial data. The use of such standards will reduce the costs of sharing or exchanging spatial data and service delivery. In addition, metadata describing such spatial data sources will be easier to understand so that their use can be evaluated. To meet this objective, relevant standards developed by the International Organization for Standardization (IOS), the European Union (EU), and the Open Geospatial Consortium (OGC) will be used.

The purpose of the role of Technical Consultant for data harmonization is to work as a member of the ALRC NSDI implementation team and provide services sufficient to support the transition from non-standard spatial data to synchronize and align the NSDI data with international standards and the data harmonization guidelines prepared by the EU Twinning Project.

3. Scope of work

[8] https://inspire.ec.europa.eu/

[9] EU ENI 2020 Twinning project MD 16 ENI OT 01 19 'Improving Spatial Data Services in the republic of Moldova following EU standards'

ALRC is responsible for coordinating the implementation of the NSDI and for carrying out the tasks sufficient to ensure the successful implementation of the NSDI. The Consultant will be a member of the ALRC NSDI implementation team with responsibilities for aligning (harmonizing) the spatial data used for the NSDI with international standards.

The EU Twinning Project has developed guidelines for such data harmonization, and these are being piloted in selected locations. Under this assignment the consultants will work on data harmonization for spatial data sets of the most importance to Moldova. These datasets may include soil, land use, land cover, roads, and other nominated datasets. The datasets for transformation will be as directed by the ALRC Head of the Department of Geodesy, Mapping & GIS (senior responsible owner for the NSDI Project) in consultation with the relevant data custodians/agencies.

The tasks to be provided will include but are not limited to:

- Contribute to the operation of the data harmonization project in compliance with the methods and guidelines developed as part of the EU Twinning Project
- Contribute to the development of processes for assessing compliance/non-compliance of the road spatial dataset with the relevant standards
- Apply these processes to the road dataset and identify where non-compliant data exists
- Harmonize the roads datasets
- Analysis of the output to establish a level of consistency and accuracy across the data harmonization
- Conduct initial quality checks (including use of existing validation routines) to ensure that road data has been harmonized transformed successfully and prepare quality reports based on this analysis
- Provide these data transformation reports to the data custodian of the custodian agency of roads data for QA (the custodian agency of roads data will be responsible for the approval and acceptance of the transformed data)
- Contribute to the development of a national metadata catalogue to provide for search/discover of road spatial data and services[10]
- Contribute to the establishment of a compliant discovery network service for the geoportal
- Undertake reviews of the metadata profile in the catalogue to ensure compliance with the relevant INSPIRE technical guidance
- Road Data harmonization should follow the methodology and the guidelines developed in frame of EU Twinning and Norway Projects
- Perform other tasks and activities in support of the implementation of the NSDI Action Plan as may be requested by the Head of Department Geodesy, Mapping & GIS (senior responsible owner for the NSDI Project)

4. Qualification Requirements

Mandatory requirements:

Education:

[10] ALRC, as the Coordinating Authority for the NSDI, will be responsible for the development of the national metadata profile

BSc first degree in one of the following: Geodesy, Topography and Cartography; Geographical Information Systems; Cadastre and Real Estate Development; Geodesy; Cadastre; or other relevant fields.
(or equivalent relevant experience)

Work Experience

- 2 years' post qualification experience (PQE)
- Experience in the use and application of geospatial systems and data and or
- Experience of working on geospatial information projects or related fields in the collection, management, and use of geospatial information

The following requirements will be considered as an advantage:

- Recent experience in a function related to the acquisition, processing, or publishing of spatial data
- Experience of working with international data standards such as EU INSPIRE.

The Consultant must provide information indicating that she / he is qualified to perform the services (CV, description of similar assignments, experience in similar conditions, general qualifications and other relevant information).

5. Reporting

Reporting will include monthly activity reports with timesheets of the consultant.

The Consultant should agree with ALRC a monthly plan at the end of each month for the next month and should report versus the work completed as per the monthly work plan.

The specific reporting requirements will be as directed by the General Director of ALRC through his nominated representative the Head of Department Geodesy, Mapping & GIS (senior responsible owner for the NSDI.

On the end of the work, the Consultant will provide a Final report with a short summary of the work done, key recommendations for ensuring data maintenance and the use of harmonised data by the State Road Administration and other institutions via NSDI Geoportal.

6. Payment

The reports specified in par.5 above, will be basis for the payments submitted on a monthly basis.

7. Duration of the Assignment

The contract with the time-based conditions will be signed for a period of up to 12 months with possible extension.

8. Languages

The working language will ne Romanian and all deliverables will be submitted in Romanian.

9. Selection

The selection of the Consultant will be conducted in accordance with the World Bank Procurement Regulations for IPF Borrowers, dated July 2016, revised November 2017

10. Client's contribution

The Client will assign a dedicated technical team to work with the consultant during the entire contract duration with the purpose of know-how and knowledge transfer. The dedicated team will provide the necessary documentation and information to the consultant.

The Consultant shall work in the ALRC premises, using its own (Consultant's) equipment and should be available. ALRC will provide office space with furniture and communications (landline phone / internet);

11. Location:

The activity/work will be performed at the office premises provided by Agency for Land Relations and Cadastre, 48 Serghei Lazo str, MD 2004, Chisinau.

12. Other

Hours of work: 8 hours per day, 5 work-days per week.