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

for International Consultant in Spatial Data Licensing

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 NSDI 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. 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 Agency (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
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

[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

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]. In order to achieve the strategic goal of cost recovery the licensing policy will need to take into consideration the EU Public Sector Information (PSI) Directive[9] and the general trend of providing public information free of charge

These terms of reference describe one role from a number of roles identified in the IGIF Action Plan prepared for Moldova. 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 consultancy is to develop and establish a standard set of regulations, terms, and conditions regarding the licensing of spatial data and network services necessary for supporting the implementation of the National SDI. The objective is to remove any inconsistency in the approach to data sharing between government agencies, academia, and the private sector.

3. Scope of work

The Consultant will work closely with ALRC and associated Legal, Compliance, Public Policy, and Information Security functions as advised by ALRC, to develop and harmonize policies and standards applicable to the licensing of spatial information in compliance with the Law on National SDI. The work will include:

- Working with key stakeholders in the review of the SDI (Spatial Data Infrastructure) project and related data to ensure compliance with existing data legislation and, where necessary, complete and advise on legislative impact assessments
- Engage with the various data custodians to establish a thorough understanding of the individual data themes covered by Law 254 of 2016[10]
- Obtain an understanding of any existing conditions of use of the data themes which may be described in the metadata of the various data themes currently available on the

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

[9] https://digital-strategy.ec.europa.eu/en/policies/psi-open-data

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

National Geoportal (geoportalinds.gov.md) or which may have been established in individual agreements between individual agencies.

- Prepare a standard set of regulations/rules/conditions (license) for the use of the geospatial data sets described in the annex to Law 254 of 2016 on the national spatial data infrastructure (see Annex A).
- For each data theme identified in the annex to the Law prepare an agreement for use (license) for each individual data theme (product). This should include (but may not be limited to) the following:
  1. Description (the product could be one or more data themes)
  2. License Type (exclusive or non-exclusive)
  3. Custodian (authority responsible for the data theme(s))
  4. Use (permitted use, any restrictions or limitations on the use of the data, and rights of use)
  5. Costs (any costs associated with the the use of the data need to be clear and unambiguous)
  6. Maintenance (update frequency and supply)
  7. Delivery (method (use of the geoportal[11]), and any costs which may be associated with this)
  8. Warranty (type of warranty and remedy (if appropriate))
  9. Assignment and Transfer
  10. Limitation of Liability
  11. Term of the License

[The individual agreements/license(s) for each data theme will form the key deliverable(s) from this assignment, reference section 4 and Annex A].

- Liaise with the team representing EU ENI 2020 (referred to as the EU Twinning project - MD 16 ENI OT 01 19) to ensure that the policy for fees, access, view, download, convert, etc. of the various spatial data and services available via the NSDI will be based on the relevant EU directives and the relevant national policies
- Maintain regular communication on the development of the licenses with Stakeholders; Data Custodian(s); ALRC; SDI Council; Other nominated supervisor (the communication frequency will be agreed at the commencement of the engagement)
- Obtain approval of the individual agreements (licenses) through engagement (direct or indirect) with the SDI Council
- Identify and make recommendations on any amendments to relevant existing legislation which may be required to accommodate the implementation of the data license regime
- Following approval of the individual agreements (licenses), support ALRC in the preparation of a stakeholder engagement plan the objective of which will be to communicate and promote the implementation of the data licensing policy (the licenses developed under this agreement will replace any informal agreements covering data usage and sharing which are currently in place)

[11] Use of the geoportal is the preferred default

- Review existing agency/supplier contracts and consents which may be needed to be amended to implement the data licensing project in partnership with ALRC and/or Stakeholder representatives to ensure filing requirements meet the legislative requirements
- Provide knowledge transfer and appropriate training to suitably qualified representatives of ALRC sufficient to allow them to monitor the use and effectiveness of the licenses and, when appropriate, make recommendations to the SDI Council for improvements to the licenses.

4. Deliverables

No	Deliverable	Target Date (Draft)	Comments	Review Comments Received	Target Date (Final)
1	Inception Report (Approved)	Week 3		Week 4	Week 5
2	Approval of licenses for annex no 1	Week 10	Covers 9 licenses	Week 12	Week 14
3	Approval of licenses for annex no 2	Week 16	Covers 4 licences	Week 18	Week 20
4	Approval of licenses for annex no 3	Week 30	Covers 19 licenses	Week 32	Week 34
5	Completion of knowledge transfer (minimum 2 x staff)		Throughout contract duration		
6	Final Report (Approved)	Week 36		Week 38	Week 40

5. Qualification Requirements

Mandatory requirements:

Education:
LLB in Law (or equivalent)
Post graduate specialization in Intellectual Property/Data Protection

Work Experience

- Experience in EU geospatial data licencing and INSPIRE requirements
- 5 years' post qualification experience (PQE)
- 2 years' experience within a compliance, legal, audit and/or risk function or contract development experience
- Experience of working on geospatial information projects or related fields with geospatial information management applications

The following requirements will be considered as **an advantage**:

- Recent experience in a licensing compliance function
- Previous experience in the analysis and evaluation of requirements and the provision of advice regarding the options for:
  (a) the development and implementation of the license(s) and
  (b) the continued operational improvement of the license(s)
- Previous experience of advising on standards, methods, and processes associated with the licensing of data and provide appropriate recommendations from the options available
- Previous experience of evaluating any likely impact to the organisation(s) of the proposed changes to the data and related service(s)
- Is familiar with Moldova NSDI legal framework with previous experience of public law, regulatory, and dispute resolution
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Languages

- Excellent knowledge of English is mandatory,
- Knowledge of Romanian or Russian will be an advantage.

6. Reporting

The Consultant will prepare an Inception Report, short monthly progress reports, and a Final Report. The Inception report will be delivered before the end of month 1 of the assignment and will cover context, scope, approach, methodology, issues to be agreed, information required, and agreed timetable for completion.

The Final Report will be provided upon completion of the assignment and will include a short description of the activities and deliverables completed under the assignment, key issues, together with any relevant observations and recommendations. The annex will include copies of approved (final) versions of the license documents prepared by the Consultant. All deliverables will be submitted in electronic version (format upon agreement) for approval by the WB and ALRC as the Coordinating Authority for the National SDI.

7. Payment

No	Deliverable	Milestone Payment
1	Inception Report (Approved)	10%
2	Approval of licenses for annex no 1	20%
3	Approval of licenses for annex no 2	10%
4	Approval of licenses for annex no 3	40%
5	Final Report (Approved)	20%

8. Duration of the Assignment

The duration of this assignment is 9 months, and the work is expected to require in the order of 80 working days effort over the duration.

9. Resources

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 their premises, using their equipment and should be available.

Location: Due to the covid-19 restrictions, the online meetings should be considered. In case of possible and agreed, the meetings will be provided at the Agency for Land Relations and Cadastre, 48 Serghei Lazo str, MD 2004, Chisinau.

10. Selection

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

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).

If necessary, an interview with potential candidates can be organized.

The contract with the lump sum conditions will be signed for a period of 9 months.

Interested qualified candidates should submit their expressions of interest and CVs, with the mark ,, ,,International Consultant in Spatial Data Licensing" by February XXX, 2022, Moldova time: 17:00 hrs. through e-mail: pief.procurement@asp.gov.md.

Annex A - Summary of the Spatial Data Sets included in Annex 1, 2 and 3 of Law no 254 of 2016 on the National Spatial Data Infrastructure[12]

From Annex no 1

1. **Reference coordinate systems**
Unique spatial reference system of spatial information, consisting of a set of rectangular coordinates (x, y, z) and / or latitude, longitude, and altitude, based on a horizontal geodetic date and a vertical geodetic date.
2. **Geographic grid systems**
Harmonized multi-resolution grid, with common point of origin, with standard cell location and size.
3. **Geographical names**
Names of areas, regions, localities, large cities, suburbs, small towns or settlements, or any other geographical or topographical element of public or historical interest.
4. **Territorial-administrative units**
Districts, cities (municipalities), villages (communes).
5. **Addresses**
Location of properties, based on address identifiers: street name, building number and postal code or, as the case may be, other indicators.
6. **Land**
Areas established by cadastral registers or equivalent.
7. **Transport networks**
Road, rail, air and water transport networks and associated infrastructure, as well as connections between different networks.
8. **Hydrography**
Hydrographic elements, as well as all other bodies of water and related elements, including river basins and sub - basins.
9. **State-protected natural areas and protection zones**
Protected natural areas and built-up areas protected, designated, or managed in accordance with the international or domestic legal framework to meet specific conservation objectives.

From Annex no 2

1. **Elevation**
Digital altimetric models of land surfaces, which include terrestrial altimetry, bathymetry, and coastline.
2. **Ground cover**
Physical and biological coverage of the earth's surface, including artificial surfaces, agricultural areas, forests, natural and semi-natural areas, wetlands, and water bodies.
3. **Orthoimages**
Georeferenced images of the Earth's surface, obtained with sensors placed on satellites or airports.
4. **Geology**
Geological characterization according to structure and composition. Includes bedrock, aquifers, and geomorphology.

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

From Annex no 3

1. **Statistical units**
Units for the dissemination or use of statistical information.
2. **Buildings**
Geographical location of buildings.
3. **Soils**
Soils and subsoils characterized by depth, texture, structure and content of particles and organic matter, skeleton, erosion, average slope, and anticipated water storage capacity, as appropriate.
4. **Land categories**
Territory characterized by planned current or future functional size or socio-economic purpose (eg residential, industrial, commercial, agricultural, forestry, recreation).
5. **Human health and safety**
Geographical distribution of the dominant pathologies (allergies, cancers, respiratory diseases, etc.), as well as information indicating the effect on health (biological indicators, decreased fertility, epidemics) or on human well-being (fatigue, stress, etc.), related to directly (air pollution, chemicals, ozone depletion, noise, etc.) or indirectly (food, genetically modified organisms, etc.) by the quality of the environment.
6. **Public utilities and other public services**
They include public utilities such as sewerage, waste management, electricity, and water supply systems, as well as public administrative and social services such as civil protection shelters, schools, and hospitals.
7. **Environmental monitoring installations**
The location and operation of environmental monitoring facilities, including the observation and measurement of harmful emissions and discharges, the state of the environment and other ecosystem parameters (biodiversity, state-protected areas, etc.) by or on behalf of public entities.
8. **Production and industrial installations**
Industrial production parks, including water collection facilities, mining, and authorized storage facilities.
9. **Agricultural and aquaculture facilities**
Agricultural production equipment and installations, including irrigation systems, greenhouses, and stables.
10. **Population distribution, demography**
Geographical distribution of the population, including population characteristics and activity levels, population migration level and indices, grouped by grid, region, administrative unit or other analytical unit.
11. **Management / regulation areas and reporting units**
Areas of management regulated or used for reporting at international, European, national, regional, and local level, including waste storage areas, drinking water protection areas, wastewater discharge areas / points, areas vulnerable to nitrates, regulated waterways in the sea or major inland waters, areas for landfilling, areas where there are restrictions on noise levels, areas approved for prospecting and mining, river basin districts, relevant reporting units and coastal management areas.
12. **Areas of natural risk**
Vulnerable areas characterized by natural hazards (any atmospheric, hydrological, seismic phenomena, as well as fires that, due to their location, severity, and frequency, can seriously affect society) such as floods, landslides and landslides, avalanches, forest fires and earthquakes.

13. **Atmospheric conditions**

Atmospheric physical conditions. Spatial data based on measurements, models, or a combination of these, as well as locations of measurements, are included.

14. **Geological meteorological characteristics**

Meteorological conditions and their measurements: precipitation, temperature, evapotranspiration, wind speed and direction.

15. **Biogeographic regions**

Relatively homogeneous areas based on ecological conditions, with common characteristics.

16. **Habitat**

Geographical areas characterized by specific ecological conditions, processes, structure, and functions (life support) that physically support the organisms that live there. They include terrestrial and aquatic areas that are distinguished by their geographical, abiotic and biotic characteristics, whether natural or semi-natural.

17. **Species area**

Geographical distribution of animal and plant species, grouped by grid, region, territorial-administrative unit or other analytical unit.

18. **Energy resources**

Energy resources including hydrocarbons, hydropower, bioenergy, solar energy, wind energy, etc., accompanied by relevant information on the extent of the resource, including the depth / height at which it is located, as appropriate.

19. **Mineral resources**

Mineral resources including metalliferous ores, industrial minerals, etc., accompanied by relevant information on the extent of the resource, including the depth / height at which it is located, as appropriate.