



REPUBLIC OF SERBIA
REPUBLIC GEODETIC AUTHORITY

REAL ESTATE MANAGEMENT PROJECT SERBIA
(P147050)
2020 WORK PLAN

November 2019

INTRODUCTION

The Republic of Serbia and the International Bank for Reconstruction and Development (Hereinafter: IBRD) concluded the Loan Agreement (Hereinafter: LA) for the Real Estate Management Project in Serbia (Hereinafter: the Project), signed by the two parties on April 17th, 2015 and ratified by the Parliament of the Republic of Serbia in its session on June 24, 2015 (Official Gazette of the Republic of Serbia – International contracts, No. 13-15 dated June 26, 2015).

The Law on State Surveys and Cadastre (LSSC, 2009) with appropriate amendments provides a solid foundation for the project. A viable single agency, the Serbian Republic Geodetic Authority (RGZ), is implementing the LSSC, and the Project Council and Steering Committee supervise the implementation.

The Project consists of four components: (A) Valuation and Property Taxation; (B) E-governance for Enabling Access to Real Estate Information; (C) Institutional Development of the RGA; and (D) Project Management and Support Activities.

The objective of the Project is to improve the efficiency, transparency, accessibility and reliability of the Republic of Serbia's real property management systems.

A full description of the Project is provided in the document "Project Appraisal Document" (PAD) and Loan Agreement (LA). The PAD is considered as a part of the necessary background materials to be understood by Consultants.

Implementation is entrusted to the Project Implementation Unit (Hereinafter: PIU) of the Republic Geodetic Authority (Hereinafter: RGA).

PROJECT DESCRIPTION

Project components

The Project consists of four components: (A) Valuation and Property Taxation; (B) E-governance for Enabling Access to Real Estate Information; (C) Institutional Development of the RGA; and (D) Project Management and Support Activities.

Component A: Valuation and Property Taxation (EUR 6.6 million)

Component A will support the provision of goods, consultants' services, and non-consulting services for:

- (a) improving the system for annual property taxation through (i) developing a sales price registry for real estate; (ii) developing software to process data from the sales price registry; (iii) developing and assessing a Mass Appraisal pilot program on property tax rolls and collection procedures in local governments units; and (iv) establishing a building registry; and
- (b) Improving the real estate valuation framework through, improving the quality of education for valuers, and adopting internationally recognized standards for valuers.

Component B: E-governance for Enabling Access to Real Estate Information (EUR 16.4 million)

Component B will support provision of works, goods, consultants' services, and non-consulting services to improve e-governance for enabling access to real estate information through:

- (a) Developing and implementing integrated real estate cadastre and registration system based on ICT strategy and archive strategy;
- (b) Developing a business model and technical framework in line with international standards for the Borrower's NSDI and upgrading the necessary network services;
- (c) Developing a financial mechanism and a business plan for the sustainability of RGA's information technology department;
- (d) Developing and implementing a central analogue and digital archive management strategy, including providing necessary equipment and training and constructing a central archive building;
- (e) improving the quality of RGA's data standardization and carrying out a public outreach campaign for users to submit cadastral data; and

- (f) Developing and implementing a one-stop-shop system for electronic issuing of construction permits.

Component C: Institutional Development of the RGA (EUR 10.6 million)

Component C will support provision of goods, consultants' services, non-consulting services to improve RGA's institutional development through:

- (a) Developing a business plan for RGA's governance and institutional and corporate planning and strategy;
- (b) Supporting the sustainability of the National Reference System and the functionality of AGROS and improving the existing gravimetric networks and the vertical reference system in Serbia;
- (c) Carrying out the digital mapping of selected cadastral municipalities and transforming existing utility maps into digital form;
- (d) Improving registration procedures of properties, removing registration backlogs in the cities of Belgrade, Novi Sad, Nis and Kragujevac, enhancing office infrastructure in selected municipalities in Serbia, and setting up mobile services at selected local RGA offices; and
- (e) Acquiring cadastral data (geodetic measurements and digital cadastre map database production) in the Vojvodina region in Serbia.

Component D: Project Management and Support Activities (EUR 2.5 million)

Component D will support provision of goods, consultants' services, non-consulting services and Incremental Operating Costs for carrying out project management activities, including:

- (a) provision of support to project implementation unit (PIU) on Project management;
- (b) monitoring and evaluation of the project;
- (c) public outreach on the project activities to improve social inclusion;
- (d) provision of training to stakeholders in the public and private sectors according to a training plan; and
- (e) Studies on, inter alia, customer satisfaction, real estate administration and management, and based upon the results of said studies, design proposals for adoption of policies and regulations.

OBJECTIVE OF THE ACTION PLAN

Maximal utilization of the loan funds and full achievement of the Project objectives. The main activities in 2020 will cover the continuation of development and implementation of the Real Estate Cadastre software Phase 3, development of the property mass valuation model and analog archive depot development. The majority of the activities under the project have been successfully completed by now.

In 2020, the ongoing activities will be continued, and the remaining activities planned for the last year of the project will be commenced and implemented.

DETAILED ACTION PLAN

Item No.	Title	Action description
A. VALUATION AND PROPERTY TAXATION		
<p>PAD: This component supports RGA in developing a mass valuation system, creating a property price index, and establishing a registry of buildings (and their parts) liable to be taxed under the annual property tax. It also supports improving the valuation infrastructure and the quality of valuations. Implementation of this component will be guided by the RGA in cooperation with municipal authorities.</p> <p>The activities under this Project include:</p> <ul style="list-style-type: none"> • Development of sales price registry and property price index; • Establishment of a building registry. <p>Objective of this component is to establish a foundation for the property mass valuation system during the first year of the Project, by:</p> <ul style="list-style-type: none"> • Input of the property sales backlog data in the Property Price Register database; • Improving the Property Price Register application to facilitate data entry, quality control of data entry, data verification and direct input by the notaries public; • Procurement of satellite imagery for the purpose of building data acquisition for the building register establishment; • etc. 		
A1.2.2	<i>Consultant for data entry in the Sales Price Register and data verification (35 local consultants)</i>	<p>Activity is underway. The consultants are entering the data from the sales contracts and verifying that data. Considering that RGA has established a direct communication with the IT system of Ministry of Justice used by public notaries, which changed the procedure of delivery of contracts in the sense that some of the data is now delivered directly to the Sales Price Register, the work process has been adapted and resulted in the proposal to reduce the number of consultants from 40 to 35.</p>
A1.2.3	<i>Consultant for control of data entry in the Sales Price Register and data verification (10 local consultants)</i>	<p>Activity is underway. The consultants perform quality control of the work provided by consultants working at the position A1.2.2. Considering the change of work process for the line A1.2.2 and increased volume for quality control it is proposed to increase the number of the consultants from 6 to 10.</p>
A1.4	<i>Consultant for collecting the information on prices of commercial buildings' lease (5 consultants)</i>	<p>There is the need to collect the data on lease prices over the territory of Vracar pilot municipality for commercial buildings (shops), for the purposes of property mass valuation model development. For that purpose, the consultants will be contracted to collect data through the direct contact with the owners and/or lease holders of the shops.</p>
A1.5.1	<i>Consultancy for data verification and analysis & modeling (International consultant)</i>	<p>Activity is underway. The consultant provides training for RGA staff in development of mass property valuation models, mentoring and guidance during staff's first development of models and also develops an independent proposal for mass property valuation models for use in Republic of Serbia.</p>
A1.5.2	<i>Consultant for the IT support for the development of the data analysis and processing system for property market data and the model development</i>	<p>Activity is underway. The IT expert supports the mass valuation system development by developing accompanying applications used for daily work in analysis, processing and modeling of data from the property market.</p>

A1.5.3	<i>Consultants for data analysis and modeling</i>	Activity is underway. Consultants for data analysis and modeling for the property mass valuation purposes. Considering unique nature and complexity of every analyzed property market, working tasks for market analysis, statistical analysis and spatial analysis are intertwined. Development of mass property valuation models for a property market requires comprehensive knowledge of the analyzed market, therefore, considering the achieved results so far, it is proposed to have one person in charge of consistent model development for a particular market from exploratory data analysis to model proposal and testing. It is proposed to integrate the existing sub-specialties of this line into a single work task for this line.
A1.6.2	<i>Data acquisition for Building Register (25 consultants)</i>	Consultants are contracted for the purposes of appending the data from the Building Register with the additional data needed for the implementation of property mass appraisal model to work on unifying data on properties in the Building Register data from all data sources available at local and central level.
A1.6.4	<i>International consultant for unregistered properties taxation and Building Register development and use</i>	The consultant's task would be to assist in overcoming the issues of combining data from various sources, procedures for the Building Register maintenance and use for the mass valuation purposes. It was plan for the consultant to give one or two workshop covering the Building Register theme, up to two working days each.
A1.6.5	<i>Environmental risk assessment data collection (10 local consultants)</i>	The consultants will be employed to collect and process data using LiDAR technology with the goal of producing high precision digital terrain model (DTM) for areas of significant risk of flooding in Republic of Serbia in order to determine its influence on the property values.
A1.6.6	<i>COTS software licenses (ArcGIS Geospatial Analyst)</i>	In order to develop mass property valuation system, it is necessary to acquire licenses for ArcGIS that provide access to module Geospatial Analyst for advanced geospatial analysis which was not available in product versions 10.2 and older for which RGA already has a number of licenses.
A1.7.1	<i>Consultants for coordinating work between pilot municipalities and the RGA (5 local consultants)</i>	Activity is underway. In order to assure a smooth cooperation between the RGA and the pilot municipalities, 5 local consultants need to be contracted for communication and coordination with the pilot municipalities. The consultants have been contracted and the activity is underway.

B. E-GOVERNANCE FOR ENABLING ACCESS TO REAL ESTATE INFORMATION

PAD:

The objective of this component is to support the provision of works, goods, consultants' services, non-consulting services to improve e-governance for enabling access to real estate information through:

- developing and implementing integrated real estate cadastre and registration system based on ICT strategy and archive strategy;
- developing a business model and technical framework in line with international standards for the Borrower's NSDI and upgrading the necessary network services;
- developing a financial mechanism and a business plan for the sustainability of RGA's information technology department;
- developing and implementing a central analogue and digital archive management strategy, including providing necessary equipment and training and constructing a central archive building;
- improving the quality of RGA's data standardization and carrying out a public outreach campaign for users to submit cadastral data; and
- developing and implementing a one-stop-shop system for electronic issuing of construction permits.

B1. INTEGRATED REC AND REGISTRATION SYSTEM DEVELOPMENT

PAD:

Under this component, the new Integrated REC and Registration IT system would have centralized architecture. The system would be developed in three and will cover: front and back office functionalities, including establishment of digitalization of incoming documents and integration with the historical digital archive, development of WEB portal

for e-services provision to the external users, interoperability with key government registers, such as the Address Register, persons register, companies register, tax register, and the Register of Spatial Units and Addresses upgrade and integration, development of a fiscal building register, price index and sales index modules, upgrading of the Utility Cadastre to comply with the new data model and development and implementation of a document management system.

This subcomponent would finance software development, the supply of hardware and licenses for the main data center, establishing the disaster recovery data center, supply of communications equipment, network infrastructure improvement, provision of IT technical training, technical assistance for quality assurance and quality control and the reconstruction of the main data center.

B1.4	<i>Software development – Phase II and installation (Address Registry, Administrative Units)</i>	Activity is underway.
B1.5	<i>Software development – Phase III and installation (Address Registry, Administrative Units)</i>	Activity is underway.
B1.6	<i>Contracting of external advisor for quality assurance, as the support to the RGA's Project Management</i>	Activity is underway.
B1.6.2	<i>Implementer (5 consultants)</i>	Activity is underway. Consultants lead the teams of junior implementers in the Phase 2 and 3 of software implementation process and the Data Quality Improvement (DQI).
B1.6.3	<i>Junior implementer (7 consultants)</i>	Activity is underway. Under the leadership of the implementers, they are working on the Phase 2 and 3 of software implementation and the data quality improvement (DQI).
B1.6.4	<i>Junior Implementer – surveyor (30)</i>	Activity is underway. 30 implementation assistants – surveyors will be contracted for the Phase 2 and 3 of implementation, migration of REC and AR data, as well as the data quality improvement (DQI).
B1.8.3a	<i>Infrastructure monitoring system – maintenance</i>	Activity is underway. The system is implemented and used. No additional financing is needed.
B1.8.8	<i>Security system and video surveillance (via web cameras)</i>	Procurement of a modern security system with the necessary number of cameras for monitoring security of the RGA's premises.
B1.13.2	<i>IT consultants for software implementation (local consultant)</i>	Activity is underway. The consultant shall report to the Director and the Assistant Director with the Sector for Information and Communication Technologies on regular bases on project progress, issues in the implementation and provide recommendations of measures to overcome the issues.
B1.13.3	<i>IT consultants for the development of technical specifications for the utility cadastre software (local consultant)</i>	Consulting services for the development of technical specifications for Phase 4 software development (utility cadastre)
B1.13.6	<i>Individual consultant for DMS maintenance quality control</i>	Activity is underway. Consulting services for maintenance of the DMS and its quality assurance.
B1.13.7	<i>Individual consultant for DMS work processes monitoring and reporting</i>	Activity is underway. Consulting services for DMS performance monitoring and query development for special reports.

B1.13.8	<i>Consulting contract for the development of technical specifications for the ISREC Phase 4</i>	The consultant for the development of technical specifications for the Phase 4 software development, including services for utility cadastre, human resources management, business processes management, etc. The selected consultant shall make sure that the Phase 4 uses the RGA DMS system.
B1.13.9	<i>Local consultant for the IT system development</i>	The local consultant shall support the IT sector in the fields where the IT sector lacks the staff and establish the links to the various IT systems outside the ISREC.
B2. IT SECTOR - NSDI		
<p>PAD:</p> <p>The Law on State Survey and REC prescribes establishing of the NSDI, which involves strategy, technology, rules, standards and human resources necessary for acquisition, processing, storage, access, sharing and optimal use of spatial data. In this manner, some of the provisions of the INSPIRE Directive are being transposed to the legislation in Serbia. The government adopted a Mid-Term Program for establishment and maintenance of the NSDI for 2011-2015. The Strategy for the establishment of the NSDI 2013-2015 is under development. Full transposition of the EU INSPIRE Directive to the Serbian legislation, pursuant to the National Program for Adoption of Acquis, is to be defined by the proposed Law on National Spatial Data Infrastructure. This subcomponent would support:</p> <ul style="list-style-type: none"> (a) NSDI business model development (financing model, pricing policy, spatial data sharing and distribution among stakeholders, licensing, cost-benefit analysis, spatial data, and services access for emergencies); (b) development of NSDI technical framework by upgrading network services for discovering, viewing, transformation, download and linking spatial data; (c) introduction and support for the implementation of international standards for spatial information, including ISO, OGC, CEN W3C and INSPIRE Implementation Rules and data harmonization for themes under the competence of RGA. <p>Further, under Component D, there would be support for organization of NSDI annual conferences, plus training and capacity building, including study visits to EU member states and participation in INSPIRE annual conferences and other relevant international and national events.</p>		
<p>On October 1st, 2017, the Republic Geodetic Authority had launched the new and improved geoportal based on the Adaptive 3 solution, which is an improved version of the old geoportal. Although this is a major step forward in the establishing of new and functional geoportal, this solution provides only a partial map view. Other components need to be developed for this geoportal to become a true digital platform of the National Spatial Data Infrastructure.</p>		
B2.1	<i>National geoportal upgrade and implementation – software development</i>	<p>Activity is underway.</p> <p>Digital platform of the NSDI – Geosrbija was officially launched on December 1st, 2017. In a short time, the platform had become highly visited and used by various groups of users in many different manners. The platform presently holds over 250 various datasets from more than 30 institutions. The number of users is constantly growing, with over 140,000 unique users monthly, and in excess of 5 million queries. For the public sector geospatial data to be provided to the users for utilization, a mobile app for Android operating system was developed, being a hyperlink towards the Geosrbija web application. Performances and capacities are not nearly satisfactory; yet, there are more than 120,000 download, which clearly indicate that such an application is necessary. With that regard, there is the need to develop a mobile application using mobile technology and tools in order to provide a faster and more efficient response and functionalities in line with the user requirements.</p> <p>ToR should be completed by March 1st, 2019.</p>
B2.2.1	<i>Business plan, implementation plan, data harmonization and standards introduction</i>	<p>Activity is underway.</p> <p>The initial plan had envisioned that a single company shall be</p>

		<p>contracted for all of the National Spatial Data Infrastructure development purposes. Market analysis and information gathering from the agencies in other countries in the world and the region had brought up the conclusion that it is not possible to find a single company that may do everything regarding the NSDI. For that reason, we had separated individual activities to commence in 2019, thus the NSDI formation and establishing process would be finalized by 2021. The activities are divided as follows:</p> <ul style="list-style-type: none"> • Socio-economic study of the NSDI impact • Consultant for the development of data harmonization methodology • Data harmonization • Business plan and implementation plan <p>Having that this item has sufficient funds allocated; the other activities would be added when the needs are identified.</p>
B2.2.2	<i>Socio-economic study of the NSDI impact</i>	<p>Activity is underway.</p> <p>The National Spatial Data Infrastructure has a major socio-economic impact on the state and the society. The Republic Geodetic Authority had participated in the World Bank activity towards testing the global tool for the NSDI state diagnostic for Serbia. One of the main conclusions of this analysis is the lack of socio-economic analysis and the awareness of the NSDI impact in this field. This study would remedy the deficiency above.</p>
B2.2.3	<i>Data harmonization</i>	<p>Activity is underway.</p> <p>The development of data harmonization system would be the fundamental system for meeting technical terms and conditions of the INSPIRE Directive, after passing the Law on NSDI and promulgating by-laws, being one of the most significant parts of the NSDI digital platform. During the initial phase, this system would harmonize all spatial data sets of the Republic Geodetic Authority. A company would be contracted for data harmonization purposes.</p>
B2.2.4	<i>Business model and implementation plan</i>	<p>Activity is underway.</p> <p>Adopting the business plan and implementation plan is of exceptional importance both for the Republic Geodetic Authority and the other NSDI stakeholders. All of the documents must be based on the strategic and business plan of the RGA. This activity will be initiated after the completion and the adoption of the strategic and business plan for the RGA, with the objective to provide a long-term financing for the purposes of the NSDI maintenance. The individual consultant would be contracted for the business plan development.</p>
B2.2.5	<i>Consultant for standards introduction and development of the NSDI technical framework</i>	<p>Activity was not implemented in 2019, thus it is pushed back to 2020.</p> <p>Contracting the consultant is planned to accelerate the introduction of standards in this field, where some of the activities were initiated and put on hold, thus they need to be continued. The NSDI technical framework document development is of utmost importance, along with the coordination of legislation and by-laws and defining the cooperation agreement.</p>
B2.2.6	<i>Consultant for the development of data harmonization methodology</i>	<p>Activity is underway.</p> <p>The main objective of contracting the consultant for data harmonization is the development of methodology and establishment of the fundamental principles in the data harmonization procedure. The fundamental principles should provide a simple, step-by-step procedure for harmonizing data of different accuracy and types.</p>

		The RGA had started data harmonization under the Impuls Project, however, since only 4 datasets were covered, and out of 34 themes in all three INSPIRE Directive annexes, the RGA is recognized as the responsible institution for 12, consultants need to be contracted to tackle this complicated and demanding work.
B2.2.7	<i>Consultant for the national geoportal improvement, optimizing and e-Security</i>	Activity is underway. The main objective of contracting the consultant is to protect the RGA's infrastructure against unauthorized system breaches and unauthorized data use. The works completion is planned for April 2020.
B2.2.8	<i>e-Security for National Geoportal</i>	Activity is underway. The works are being performed by the company INFORMATIKA A.D. Belgrade.
B2.2.9	<i>Improvement and optimization for National Geoportal</i>	Activity is underway. The works are being performed by the company Asplan Viak Internet AS from Norway.

B3. IT SECTOR – STRATEGY

PAD:

The final objective of this component is to improve the Sector for Information Technologies through drafting the strategic sustainability plan. Under this component definition in the Project, it was planned to contract the consultants (local or international) to analyze the existing business processes and material resources regarding the information technologies in the Republic Geodetic Authority. Pursuant to the analysis performed, there is the need to develop the plan under coordination with the RGA management to improve organization, services and upgrading of information-communication equipment, i.e. establishing of the future institutional framework for the functional support to the implementation of all projects pertaining to software development based on the modern information platforms, to facilitate better business communication with all entities in daily work. The precondition for initiating this sub-component is contracting the Deputy Manager of the PIU (expert with IT references) to support the IT sector and contribute a more successful implementation of the Component B. The expected result is the IT strategy for a 5-year period (2017-2021).

B3.1.1	<i>IT strategy improvement</i>	A consultant will be contracted for the IT strategy development.
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B4. DIGITAL ARCHIVE DEPARTMENT

PAD:

This component provides support for the continued implementation of digital archive by digitizing and indexing the land registry sheets and key documents pertaining to the cadastre and property rights registration using the existing resources of the archive department. The sub-component supports development of the central archive depot, to be used for storing the analog documents and provide the additional areas for document conversion.

The documents are planned to be stored in this depot are of exceptional national importance, showing the history of ownership and parcel shapes in Serbia.

The need for the additional archive documents storage area for the Republic Geodetic Authority (RGA) became notable in early 1990's. At the time, the RGA's archive depots had lacked the room for storing the archive originals of cadastral maps. The issue of the RGA's archive documents storage had escalated at the end of first decade of this millennium. At the time, many municipal cadastral offices had completed digital cadastral maps (DCM), and the analog working originals previously used for registering changes had become archive cadastral maps. These maps are still kept in the local offices, due to the lack of capacity in the archive depots. These cadastral maps are still in the local offices, more or less appropriately stored.

Meanwhile, as the Real Estate Cadastre (REC) has been established, the entire institution of the Land Registry (LR) has been placed into the RGA's care. The LR, with the complete collection of documents, is now in the RGA's archive, presently dislocated over numerous locations. At some locations, the local offices had taken over the books and collections of documents (often in poor and completely inadequate conditions); while in the others, the books had remained in courts, with some being submitted to the local archives after public display and the REC establishment.

The RGA had produced the development strategy by 2020, recently adopted by the Government of the Republic of Serbia. Under this strategy, the archive and the digital archive development strategy has been elaborated

	<p>separately, thus defining the guidelines for future development in line with the objectives of the Real Estate Management Project.</p> <p>In parallel with the storage issue, the issue of the central digital archive database is also being resolved. Establishing of the central digital archive database would provide for a quality integration of the digital archive with the future IT system for the REC and fully resolve the issue of accessing the documents both for the internal and for the external users.</p>	
<p>B4.1</p>	<p><i>Main design and supervision over works on the archive depot</i></p>	<p>Activity is underway.</p> <p>The design has been completed and technical control has been done, thus the engagement of the company is to continue once the bidding procedure for the contractor is completed and the contractor enters the working site.</p>
<p>B4.1.1</p>	<p><i>Construction works for archive building (+ procurement and instalation of Archive shelves - B4.5)</i></p>	<ul style="list-style-type: none"> - The updated final EMP was completed and approved for the construction of the new archive depot in Zemun, December 2018. - DCP (design for construction permit) was finalized. - Construction permit was issued on December 4th, 2018 by the Secretariat for urbanism and construction affairs. - DC (design for construction) was finalized. - Fire protection consent for the DC (design for construction) was issued on May 30th, 2019 by the Sector for emergencies of the MoI, Republic of Serbia. - Resolution permitting works for the MB transformer station was issued on September 18th, 2019 by the Secretariat for urbanism and construction affairs. - Bidding document is being elaborated and the bidding procedure for the selection of contractor for the new archive depot is planned to be launched by the end of 2019. - Selection of contractor and commencement of works is planned for the Q1 2020. - The activity is planned to be funded predominantly from the initial financing for the B4 project component, with minor addition from the additional financing proceeds. <p>Activity is underway.</p>
<p>B4.9</p>	<p><i>Software upgrade and further development</i></p>	<p>Activity is underway. Since April 1st, 2016, the consultants have been contracted previously working under the project funded by the European Delegation, covering the cadastral documents scanning from the territory of the Province of Kosovo and Metohija. A total of 120 consultants have been contracted. The consultants have been working and the transformation of analog archive documents in the digital format has been performed according to the plan.</p> <p>The consultants contracts have been extended to December 31st, 2018.</p> <p>The contracts for 105 consultants have been extended for a period of 4 months for gradual decrease of the number of consultants down to 50. This was agreed with the WB Team members.</p> <p>The majority of consultants working on the analog archive documents digitizing had continued to work under the contracts with the RGA. Only 29 consultants had remained under the project until the end of 2019, to perform the quality control works.</p>

		Activity is underway.
B4.10	<i>Procurement of licenses</i>	Procurement of necessary licenses for the software solution development under B4.9.
B5. IT SECTOR – DATA QUALITY IMPROVEMENT		
<p>PAD:</p> <p>The analysis of RGA data showed that the data format is not consistent (standardized), which is partially a consequence of outdated software solutions currently in use (distributed database system), with a lack of integration between the data in different systems. The most common error categories are:</p> <ul style="list-style-type: none"> • data entered with the incorrect content; data entered with the correct content, however in non-standardized format; missing data without the impact on the registered rights validity, however containing shortcomings such as missing UPIN for citizens, no address change registration, or inconsistent spatial data (parcel intersects CM boundaries, construction intersects parcel boundaries), etc. <p>Having in mind everything above, the activity plan contains:</p> <ul style="list-style-type: none"> • Contracting a consultant for the data quality improvement methodology development (December 2016) – Consultant for data quality improvement • Preparing bidding documents for selection of a consulting company to provide data quality improvement services (December 2016). Among the other things, the company shall contract the consultants for correcting the errors and assist in organizing the work in local offices towards data quality improvement, develop necessary software tools and the appropriate procedures for data quality improvement. <p>This component includes a media campaign to stimulate citizens to submit the missing data, including other forms of mass data acquisition.</p>		
B5.1.1	<i>Pilot implementation in 5 local real estate cadastre offices for quality verification – surveyors</i>	Contracting of individual consultants was planned for the first quarter 2019, after having defined the methodology for data quality improvement and identification of errors in textual and graphical data.
B5.1.2	<i>Pilot implementation in 5 local real estate cadastre offices for quality verification – lawyers</i>	Activity is underway.
B5.2	<i>Data quality improvement in all local offices</i>	Activity is underway.
B6. SBR – ONE STOP SHOP FOR ELECTRONIC ISSUING OF CONSTRUCTION PERMITS		
<p>PAD:</p> <p>This sub-component had supported the development and implementation of the one-stop shop system for electronic issuing of building permits in the Serbian Business Registers Agency. The project had supported the existing the existing IT systems and database structures of the institutions/organizations, which are part of the building permits processes, re-design of the working process to comply with the one-stop-shop principles, identification of any additional legal amendments, which may need to be on place to support the new unified digital processes, development of requirements for all institutions/organizations involved, development and piloting of IT system, which supports the electronic issuing of construction permits, capacity building.</p> <p>For the purpose of faster and more efficient implementation of “one stop shop” for e-permitting, a massive number of training sessions on all levels was provided and the necessary equipment was procured for the local government units.</p> <p>This subcomponent will finance technical assistance, software development, independent quality assurance and quality control of the design and development of the application software and supply of hardware and standard licenses.</p> <p>This activity is fully implemented.</p>		
C. INSTITUTIONAL DEVELOPMENT OF THE REPUBLIC GEODETIC AUTHORITY		
<p>PAD:</p> <p>Activities under the Component C of this Project will support the provision of goods, consultants’ services, non-consulting services to improve RGA’s institutional development through:</p> <ol style="list-style-type: none"> developing a business plan for RGA’s governance and institutional and corporate planning and strategy; supporting the sustainability of the National Reference System and the functionality of AGROS and improving the existing gravimetric networks and the vertical reference system in Serbia; 		

	<ul style="list-style-type: none"> III. carrying out the digital mapping of selected cadastral municipalities and transforming existing utility maps into digital form; IV. improving registration procedures of properties, removing registration backlogs in the cities of Belgrade, Novi Sad, Nis, and Kragujevac, enhancing office infrastructure in selected municipalities in Serbia, and setting up mobile services at selected local RGA offices; and V. acquiring cadastral data (geodetic measurements and digital cadastre map database production) in the Vojvodina region in Serbia. 	
C1. RGA BOARD		
The activities under this sub-component have been finished, however, the RGA is still considering the most appropriate transformation model with the Government of the Republic of Serbia.		
C2. SECTOR FOR BASIC GEODETTIC WORKS		
<p>PAD:</p> <p>RGA is responsible for establishing and maintaining the National Reference System by the Law on State Survey and REC, pursuant to Article 31, which consists of: 1) spatial (three-dimensional) reference system; 2) horizontal (two-dimensional) reference system; 3) vertical (single-dimensional) reference system; 4) gravimetric reference system; and 5) astronomic reference system. Under the RECRP, the spatial reference system was established and this subcomponent would make the spatial reference system sustainable by upgrading and completing the technical equipment and also by re-establishing the vertical reference system and the gravimetric reference system.</p> <p>Under the project, the functionality of this important infrastructure is to be maintained by replacing outdated equipment and making further improvements to capacity. The AGROS is linked to the rest of the European Union Positioning System (EUPOS) network, and Serbia is taking an important role, considering that one of the control points for the European Positioning Network (EPN) maintenance is situated within the AGROS network. The following activities are included: i) replacement of outdated receivers; ii) installation of a time station for the control center; iii) procurement and renewal of the network access licenses for the system control software in the AGROS control center for the next five years; iv) enhancement of the IT infrastructure; and v) promotion of the system and staff training.</p> <p>The project would utilize both the private sector and RGA staff for the leveling work and includes construction of the leveling monuments; procurement of equipment and vehicles for motorized leveling (two passenger vehicles and one pickup vehicle per team, which would be modified for this purpose); staff training; and processing the results. The results would be included in the European Leveling Network (EULN).</p>		
C2.2	<i>Clock station for control center</i>	Pending the RGA management decision on justification of this procurement under the present conditions.
C2.5	<i>Company for measuring height differences and leveling network stabilization (central Serbia)</i>	Activity is underway. The contractor had commenced the field activities. The work is expected to be completed by the end of 2020.
C2.6	<i>Company for measuring height differences and leveling network stabilization (southern part of Serbia)</i>	Activity is underway. The activity is expected to be completed soon.
C2.7	<i>Terrain vehicles</i>	Procurement of two mid-range terrain vehicles for field visits and state border maintenance.
	<i>EUREF campaign</i>	The consultant shall design the EUREF measurement campaign for the purpose of the EUREF measurement campaign performance in 2020. The measurement campaign is being implemented to assure the integrity and monitoring the temporal evolution of coordinate reference system. The campaign results are used for the determination of the EUREF basic reference network, SREF network, and AGROS permanent stations network in the ETRS89 coordinate system. The measurement campaigns are being performed every 5 years pursuant to the Rulebook on basic geodetic works.
C2.12	<i>Consultant for quality control of the gravimetric measurements processing</i>	Task of the consultant is to perform control and correction of the measurement plan in the Basic Gravimetric Network, quality control of the gravimetric measurements in the BGN and control and verification of the BGN data processing and adjustment, and to produce a technical report on measurements performed. It is planned to contract a consultant in 2019, in line with the activities'

		performance schedule.
C3. DIGITAL CADASTRAL MAPPING PROGRAM COMPLETION		
PAD:		
<p>The e-government agenda requires all cadastral data to be in digital form, in accordance with national standards (based on international standards). The activities proposed under the project had supported transformation of analog maps to digital format (original survey data input); and transformation of utility cadastre analog maps into digital format (digitalization and original survey data input) is to be done in the upcoming period.</p> <p>The project support focuses on expanding the workforce capacity by engaging individual consultants working in the Sector for REC at RGA's headquarters to carry out the digitizing work.</p>		
C3.2	<i>Local technical staff for utility map conversion</i>	Activity is underway. The contracts are active until April 30 th , 2020.
C4. REMOVING FIRST INSTANCE BACKLOG IN THE SELECTED LOCAL OFFICES		
PAD:		
<p>After the REC completion under the RECRP Project, all works pertaining to the property rights registration in urban areas and all land registries from the courts have been transferred to the RGA. Since the RGA had allocated most of the staff to the REC completion, the backlog of registration requests had occurred in the major cities. The weak response of the property owners during the public display had resulted in the data quality decrease, causing the great number of cases in the REC maintenance and numerous requests for data correction – both on properties and property rights. The law had also extended the deadline for submitting requests for error corrections to five years after official use of the REC, thus the number of cases is expected to grow over the years until 2016 (the REC was mostly completed by 2011). The additional limiting factor is the existence of some 30,000 appeals against decisions of the RGA's local real estate cadastre offices, being resolved by the second instance.</p> <p>In order to remove the backlog, the Project will fund contracting the qualified consultants to resolve the cases both in first and in second instance.</p>		
C4.3	<i>Local technical staff for classification of unclassified migrated cases and input of non-migrated cases in the DMS</i>	The consultants will be contracted for one year with test period lasting two months. The task of the consultants is to classify the cases that had lost classification during the migration in the new DMS system or had not been migrated at all, in line with the RGA experts' instructions. The consultants will work in certain local real estate cadastre offices.
D. PROJECT MANAGEMENT AND SUPPORT ACTIVITIES		
<p>Component D has the objective to support provision of goods, consultants' services, non-consulting services and Incremental Operating Costs for carrying out project management activities, including:</p> <ol style="list-style-type: none"> I. provision of support to project implementation unit (PIU) on Project management; II. monitoring and evaluation of the project; III. public outreach on the project activities to improve social inclusion; IV. provision of training to stakeholders in the public and private sectors according to a training plan; and V. studies on, <i>inter alia</i>, customer satisfaction, real estate administration and management, and based upon the results of said studies, design proposals for adoption of policies and regulations. 		
D1. PROJECT IMPLEMENTATION UNIT		
<p>The Project Implementation Unit (PIU) is situated in the RGA Headquarters and works full time on the project implementation. The PIU consists of:</p> <ul style="list-style-type: none"> PIU Director Assistant PIU Director Training specialist (part time) Monitoring and evaluation specialist (part time) Procurement specialist Procurement assistant FM specialist FM assistant Valuation specialist Office manager/interpreter/communications <p>The PIU is responsible for:</p> <ul style="list-style-type: none"> Administration and project management Financial management and reporting 		

Procurement of works, goods and technical services
 Technical support (support regarding IT, legal issues, cadastre & survey)
 Project activities planning system
 Financing system (annual planning, budgeting and accounting)
 Contract quality control and supervision system
 Monitoring & evaluation system and reporting
 Support to the steering committee, project managers and consultants in the project implementation
 Relations and communication system with the World Bank
 System for documents preparation and archiving.

D2. STUDY AND CAMPAIGN

The M&E specialist will be contracted part time for the entire Project duration with the task to monitor the Project implementation against the indicators agreed, by performing periodical surveys and collecting available information. The methodology of information collecting and the reporting method will be carefully considered during the first quarter. The Project monitoring results will serve for improving the individual Project activities (changing and adjusting methodologies) to achieve the maximum effects of the project implementation.

D2.1	<i>Social and customer studies (year 1, 3 and 5)</i>	Activity is underway. The next, third study will be done in 2020 according to the same Terms of Reference.
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D3. PUBLIC AWARENESS

The project provides funding for the general public awareness campaign to improve communication with the public, with the information being published through the media, billboards in major towns and advertizing in the media where possible. The leaflets with clarifications are to be distributed regularly and made available to the local offices throughout the country. The seminars for professional organizations (realtors, banking system, surveyors, community of legal professionals, chambers of commerce, etc.) are held.

The project funds shall be used for the development of the communication strategy and design and distribution of promotional material.

D3.1	<i>Public awareness campaign</i>	Activity is underway.
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D4. TRAINING

D4.1	<i>Training</i>	Activity is underway. Training plan is covered by the separate plan, submitted together with the work plan.
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D5. POLICY AND LEGISLATION

D5.1	<i>Legal expert for harmonizing legislation with the Law on Planning and Construction</i>	Activity is underway.
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