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IDA/R2016-0046/1

May 5, 2016

Closing Date: Tuesday, May 24, 2016 at 6 p.m.

FROM: Vice President and Corporate Secretary

Uzbekistan

Modernization of Real Property Registration and Cadastre Project

Project Appraisal Document

Attached is the Project Appraisal Document regarding a proposed credit to Uzbekistan for the Modernization of Real Property Registration and Cadastre Project (IDA/R2016-0046), which is being processed on an absence-of-objection basis.

Distribution:

Executive Directors and Alternates
President
Bank Group Senior Management
Vice Presidents, Bank, IFC and MIGA
Directors and Department Heads, Bank, IFC and MIGA

Document of
The World Bank

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Report No: PAD1433

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED CREDIT

IN THE AMOUNT OF US$20 MILLION

TO THE

REPUBLIC OF UZBEKISTAN
FOR A

MODERNIZATION OF REAL PROPERTY REGISTRATION AND CADASTRE PROJECT

January 14 , 2016

Social, Urban, Rural and Resilience Global Practice
Europe and Central Asia Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective December 15, 2015)

Currency Unit	=	Uzbekistan Sum
UZS 2,730	=	US$1
US$ 0,00037	=	UZS 1

FISCAL YEAR

January 1 – December 31

ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank
CIFA	Country Integrated Fiduciary Assessment
CORS	Continuously Operating Reference Stations
CPA	Country Procurement Assessment
CPF	Country Partnership Framework
CPS	Country Partnership Strategy
CRS	Coordinate Reference System
DBMS	Database Management System
ECA	Europe and Central Asia
ECAPDEV	World Bank's Europe and Central Asia Region's Capacity Development Trust Fund
EMF	Environmental Management Framework
EMP	Environmental Management Plan
FM	Financial Management
G2B	Services for Business
G2C	Services for Citizens
G2G	Services for Government
GIS/SDI	Geographical Information System/Spatial Data Infrastructure
GKZGDK	State Committee for Land Resources, Geodesy, Cartography and State Cadastre (Goskomzemgeodescadastre)
GNSS	Global Navigation Satellite System
GOU	Government of Uzbekistan
GPN	General Procurement Notice
GRS	Grievance Redress Service
GSD	Ground sample distance
IBRD	International Bank for Reconstruction and Development
ICB	International Competitive Bidding
ICT	Information and Communication Technologies
IDA	International Development Association
IFR	Interim Financial Report
IFR	Interim Financial Reports
IISRPRC	Integrated Information System for Real Property Registration and Cadastre
IPSAS	International Public Sector Accounting Standard

ISA	International Standards on Auditing
ISP	Implementation Support Plan
ITRF	International Terrestrial Reference Frame
LADM	Land Administration Domain Model
LCS	Least cost selection
M&E	Monitoring and evaluation
MFERIT	Ministry of Foreign Economic Relations, Investment and Trade
MOE	Ministry of Economy
MOES	Ministry of Emergency Situations
MOF	Ministry of Finance
MOITD	Ministry of Information Technology Development
MOJ	Ministry of Justice
MRPRCP	Uzbekistan Modernization of Real Property Registration and Cadastre Project
NCB	National competitive bidding
NGIS	National Geographical Information System
NGO	Non-governmental Organization
NSDI	National Spatial Data Infrastructure
OP/BP	Operational Policy / Bank Procedure
PDO	Project Development Objective
PEFA	Public Expenditure and Financial Accountability
PFS	Project Financial Statement
PIU	Project Implementation Unit
POM	Project Operations Manual
QCBS	Quality- and Cost-based Selection
RPRSC	Real Property Registration System and Cadastre
RTK	Real Time Kinematic
SA	Social Assessment
SBD	Sample Bidding Documents
SMEs	Small and medium enterprises
SORT	Systematic Operations Risk-rating Tool
SSS	Single Source Selection
UN	United Nations
UNDB	United Nations Development Business
UZLR	Uzbek Land Registry 2.2
WGS84	World Geodetic System 1984

Regional Vice President:	Cyril Miller
Country Director:	Saroj Kumar Jha
Senior Global Practice Director:	Ede Jorge Ijjasz-Vasquez
Practice Manager:	Jorge A. Muñoz
Task Team Leader:	Mika-Petteri Törhönen, Anna Corsi

UZBEKISTAN
Modernization of Real Property Registration and Cadastre Project

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Modernization of Real Property Registration and Cadastre (P151746)

PROJECT APPRAISAL DOCUMENT

EUROPE AND CENTRAL ASIA

Social Urban, Rural, and Resilience Global Practice

Report No.: PAD1433

Basic Information		
Project ID P151746	EA Category B - Partial Assessment	Team Leader(s) Mika-Petteri Torhonen,Anna Corsi
Lending Instrument Investment Project Financing	Fragile and/or Capacity Constraints [ ]	
	Financial Intermediaries [ ]	
	Series of Projects [ ]	
Project Implementation Start Date 03-Oct-2016	Project Implementation End Date 30-Sep-2021	
Expected Effectiveness Date 30-Sep-2016	Expected Closing Date 30-Sep-2021	
Joint IFC No		

Practice Manager/Manager	Senior Global Practice Director	Country Director	Regional Vice President
Jorge A. Munoz	Ede Jorge Ijjasz-Vasquez	Saroj Kumar Jha	Cyril E Muller

Borrower: Republic of Uzbekistan					
Responsible Agency: State Committee for Land Resources, Geodesy, Cartography and State Cadastre, Gosgomzemgeodescadastre					
Contact:	S. Arabov		Title:	Chairman	
Telephone No.:	998712777614		Email:	info@ygk.uz	

Project Financing Data(in USD Million)					
[ ] Loan	[ ] IDA Grant	[ ] Guarantee			
[X] Credit	[ ] Grant	[ ] Other			
Total Project Cost:	25.00		Total Bank Financing:	20.00	

Financing Gap:	0.00

Financing Source	**Amount**
BORROWER/RECIPIENT	5.00
International Development Association (IDA)	20.00
Total	25.00

Expected Disbursements (in USD Million)

Fiscal Year	2017	2018	2019	2020	2021	2022	0000	0000	0000	0000
Annual	1.00	2.50	12.00	7.00	2.50	0.00	0.00	0.00	0.00	0.00
Cumulative	1.00	3.50	15.50	22.50	25.00	25.00	0.00	0.00	0.00	0.00

Institutional Data

Practice Area (Lead)

Social, Urban, Rural and Resilience Global Practice

Contributing Practice Areas

Agriculture, Transport & ICT

Cross Cutting Topics

[ ] Climate Change

[ ] Fragile, Conflict & Violence

[X] Gender

[ ] Jobs

[ ] Public Private Partnership

Sectors / Climate Change

Sector (Maximum 5 and total % must equal 100)

Major Sector	Sector	%	Adaptation Co-benefits %	Mitigation Co-benefits %
Agriculture, fishing, and forestry	General agriculture, fishing and forestry sector	10		
Public Administration, Law, and Justice	Law and justice	15		
Public Administration, Law, and Justice	Public administration-Information and communications	25		
Information and communications	Information technology	50		
Total		100		

☑ I certify that there is no Adaptation and Mitigation Climate Change Co-benefits information

applicable to this project.

Themes

Theme (Maximum 5 and total % must equal 100)

Major theme	Theme	%
Environment and natural resources management	Land administration and management	40
Rule of law	Personal and property rights	20
Public sector governance	e-Government	40
Total		100

Proposed Development Objective(s)

The Project's Development Objective is to establish an efficient and accessible real property registration and cadastre system in the Republic of Uzbekistan as part of the national eGovernment structure and services.

The project will achieve this by: (i) improving business processes and customer orientation in the real property registry and cadastre; (ii) creating a fully digital real property registry and cadastre system (i.e. IISRPRC) accessible online to the public; (iii) improving the regulatory and operational environment of the real property registry and cadastre; (iv) facilitating spatial data access, exchange and sharing at national level; and (v) raising awareness on the importance of real property rights.

Components

Component Name	**Cost (USD Millions)**
Real Property Registry and Cadastre System Development	13.35
Real Property Registration and Cadastre Data Development	4.92
Use of Real Property Registry and Cadastre Data	1.33
Institutional Development and Project Management	2.91

Systematic Operations Risk- Rating Tool (SORT)

Risk Category	**Rating**
1. Political and Governance	Substantial
2. Macroeconomic	Moderate
3. Sector Strategies and Policies	Moderate
4. Technical Design of Project or Program	Moderate
5. Institutional Capacity for Implementation and Sustainability	Substantial
6. Fiduciary	Substantial
7. Environment and Social	Low
8. Stakeholders	Moderate
9. Other	

OVERALL	Substantial

Compliance

Policy

Does the project depart from the CAS in content or in other significant respects?	Yes [ ] No [X]
Does the project require any waivers of Bank policies?	Yes [ ] No [X]
Have these been approved by Bank management?	Yes [ ] No [ ]
Is approval for any policy waiver sought from the Board?	Yes [ ] No [X]
Does the project meet the Regional criteria for readiness for implementation?	Yes [X] No [ ]

Safeguard Policies Triggered by the Project	**Yes**	**No**
Environmental Assessment OP/BP 4.01	**X**	
Natural Habitats OP/BP 4.04		**X**
Forests OP/BP 4.36		**X**
Pest Management OP 4.09		**X**
Physical Cultural Resources OP/BP 4.11		**X**
Indigenous Peoples OP/BP 4.10		**X**
Involuntary Resettlement OP/BP 4.12		**X**
Safety of Dams OP/BP 4.37		**X**
Projects on International Waterways OP/BP 7.50		**X**
Projects in Disputed Areas OP/BP 7.60		**X**

Legal Covenants

Name	**Recurrent**	**Due Date**	**Frequency**
New open Coordinate Reference System (CRS)		31-Dec-2017	

Description of Covenant

The Recipient shall: (a) establish the legal basis for a new open Coordinate Reference System by December 31, 2017, unless otherwise agreed with the Association; and (b) ensure that all spatial data converted and/or produced under the Project is compatible with said CRS and accessible to public and private users.

Name	**Recurrent**	**Due Date**	**Frequency**
Inter-Ministerial Coordination Council	**X**		CONTINUOUS

Description of Covenant

For the purposes of overall Project oversight and policy guidance the Recipient shall maintain until completion of the Project the Inter-Ministerial Coordination Council with the composition, terms of reference and resources adequate for the implementation of theProject.

Name	Recurrent	Due Date	Frequency
Environmental Management Framework (EMF)	X		CONTINUOUS

Description of Covenant

The Recipient shall ensure that the Project is carried out in accordance with the EMF including the requirement of consultation and disclosure. The Recipient shall not amend, suspend or abrogate the EMF or any provision thereof, without the prior approval of the Association.

Name	Recurrent	Due Date	Frequency
Annual work program	X		Yearly

Description of Covenant

The Recipient shall prepare a draft annual work program (including an annual training plan) and budget, and furnish said draft by September 30 each year, during Project implementation, to the Association for review and comments.

Conditions

Source Of Fund	Name	Type
IDA	Establishment of Project Implementation Unit (PIU)	Effectiveness

Description of Condition

The PIU has been established in accordance with paragraph 1 of Section I.A of Schedule 2 to this Agreement and key staff are in place including, (i) a Project Director; (ii) a financial management specialist; (iii) a procurement specialist; (iv) an information communication technology specialist; and (v) a registry/cadastre specialist.

Source Of Fund	Name	Type
IDA	Approval of Project Operational Manual (POM)	Effectiveness

Description of Condition

The Project Operational Manual has been adopted by the Recipient in a manner acceptable to the Association.

Source Of Fund	Name	Type
IDA	Installation of automated accounting system	Effectiveness

Description of Condition

The Recipient has installed in the PIU an automated accounting system, with modifications for Project accounting and reporting, on terms and in a manner acceptable to the Association.

Team Composition

Bank Staff

Name	Role	Title	Specialization	Unit
Mika-Petteri Torhonen	Team Leader (ADM Responsible)	Lead Land Administration Specialist	Land Administration	GSULN
Anna Corsi	Team Leader	Sr Land	Land Tenure	GSULN

		Administration Specialist		
Fasliddin Rakhimov	Procurement Specialist (ADM Responsible)	Procurement Specialist	Procurement	GGO03
Djamshid Iriskulov	Financial Management Specialist	Consultant	Financial Management	GGODR
Aanchal Anand	Team Member	Land Administration Specialist	Economic Impact	GSULN
Dilshod Khidirov	Team Member	Senior Rural Development Specialist	Agricultural Land Use	GFA03
Jasna Mestnik	Team Member	Finance Officer	Disbursement	WFALA
Margaret Png	Counsel	Lead Counsel	Law	LEGLE
Nikolai Soubbotin	Counsel	Lead Counsel	Law	LEGAM
Nina Kolybashkina	Team Member	Senior Social Development Specialist	Social Development	GSU03
Rumiya Garipova	Team Member	Program Assistant	Operations	ECCUZ
Rustam Arstanov	Safeguards Specialist	Environmental Specialist	Environmental Safeguards	GEN03
Sarah Leigh Hammill	Team Member	Senior Program Assistant	Operations	GSULN
Sevara Abdusamatova	Team Member	Procurement Assistant	Procurement	ECCUZ
Stamatis Kotouzas	Team Member	Land Administration Specialist	Operations	GSULN

Extended Team

Name	Title	Office Phone	Location
Anthony Lamb	Registration Specialist		Sydney
Igor Popiv	ICT Land Admin. Specialist	380442514507	Kiev
Vladimir Evtimov	Cadastre Specialist, FAO		Rome
Zdravko Galic	Geospatial Data Specialist, FAO		Vienna

Locations

Country	First	Location	Planned	Actual	Comments

	Administrative Division				
Uzbekistan	Karakalpakstan	Karakalpakstan	**X**		
Uzbekistan	Surxondaryo	Surxondaryo Viloyati	**X**		
Uzbekistan	Samarqand	Samarqand Viloyati	**X**		
Uzbekistan	Qashqadaryo	Qashqadaryo Province	**X**		
Uzbekistan	Bukhara	Bukhara Province	**X**		
Uzbekistan	Toshkent	Toshkent Viloyati	**X**		
Uzbekistan	Toshkent Shahri	Toshkent Shahri	**X**		
Uzbekistan	Sirdaryo	Sirdaryo	**X**		
Uzbekistan	Navoiy	Navoiy Province	**X**		
Uzbekistan	Namangan	Namangan Province	**X**		
Uzbekistan	Xorazm	Xorazm Viloyati	**X**		
Uzbekistan	Jizzax	Jizzakh Province	**X**		
Uzbekistan	Fergana	Fergana	**X**		
Uzbekistan	Andijon	Andijan	**X**		

Consultants (Will be disclosed in the Monthly Operational Summary)	
Consultants Required ?	Consultants will be required

I. STRATEGIC CONTEXT

A. Country Context

1. Uzbekistan, a resource-rich and landlocked country, is the third largest country in Central Asia by land mass (447,400 km^2) and the largest in population (30.5 million). In the past ten years, the country has sustained stable growth and poverty reduction driven mainly by favorable terms of trade, public investments in education, health and infrastructure development, increases in public sector salaries, and increased remittances. In 2014, GDP grew by 8.1 percent and was reflected across all sectors, with construction (18.3 percent), services (15.4 percent), and agriculture (6.9 percent) the most dynamic. The headcount poverty rate declined from 27.5 percent in 2001 to 14.1 percent in 2013. However, reforms to address economic inefficiencies and structural impediments to growth are still in the early stages.

2. Despite Uzbekistan's fast macroeconomic growth, the country needs to increase efforts to protect private property, reduce government controls, and minimize the costs of doing business for the private sector to evolve further and create jobs. Uzbekistan's 1992 Constitution gives everyone the right to own property and to leave that property by inheritance. Since 1997, reforms have been undertaken to transform the country's real property and cadastre system. Nevertheless, additional interventions are needed to further improve the efficiency and more importantly to ensure accessibility of the existing system and bring it in line with international standards (in the Doing Business 2015 report Uzbekistan is ranked 113 out of 189 countries for property registration, while in the 2016 report it is ranked 87). The real property market in the country is still very limited both geographically and in terms of volume of transactions, with access to registry and cadastre data a challenge. Further, the land tenure context of Uzbekistan remains restricted, with private ownership of land (both agricultural and non-agricultural) still nonexistent, while freehold tenure applies to built property. People can hold land either by way of land use right or lease from the State, but have ownership rights to buildings. Such dualism in tenure acts as a disincentive for investors, impedes the use of land for economic activity, and halts development of the land market.

3. The Government of Uzbekistan is aware of the outstanding needs and seeks to modernize its real property registration and cadastre system in order to realize the economic and social benefits of up-to-date accessible information for future development. The eGovernment Master Plan initiative,[1] of which the registry and cadastre is a central part, is one of the Government's priorities for improving the investment climate in Uzbekistan. In fact, the Real Property Registry and Cadastre is recognized as one of the country's six key e-registries (together with the National Geographical Information System and the Census, Legal Entity, Vehicle and Address Registries). Demand for registration and cadastre information is rapidly increasing. Market pressure and the need to quickly respond to requests for information by the public, as well as other agencies (courts, tax authorities, banks, statistics, etc.), have forced some of the self-

[1] Approved on 27 June 2013, the Master Plan is a comprehensive program for the development of the national information and communication system of the Republic of Uzbekistan for 2013-2020. Its purpose is to further promote the adoption of advanced ICT technology, accelerate the development of information resources, systems and networks, as well as to expand the range of online public services provided to businesses and citizens.

financed registry and cadastre offices to invest in modern technologies. The system also operates almost exclusively on paper (outside Tashkent and Samarkand city offices). The transition from a paper-based to a computer-based integrated land registry and cadastre will enable the country to improve the transparency of real property ownership and transactions, improve customer services, support eGovernment initiatives, make geo-spatial information available to a broad range of stakeholders (government agencies and private and professional users), and ultimately promote private sector investment and development of the economy overall. The success of the Uzbek transition to a uniform digital environment will require significant efforts to deal with data renovation and updating, building the IT and communications infrastructure in the national land administration agency, the State Committee for Land Resources, Geodesy, Cartography and State Cadastre (Goskomzemgeodescadastre, GKZGDK) central and field offices, and targeted human resource development programs to upgrade the skills of staff to operate effectively in the new environment.

B. Sectoral and Institutional Context

4. Real property registry and cadastre reform in Uzbekistan dates back to 1997 when the National Real Property Cadastral and Rights Registration System was established following adoption of the new Civil Code. This reform was initially to serve taxation purposes, but the 2000 Law on State Cadastre shifted the focus to the registration of real property rights with the aim of promoting the development of a real property market in the country. In 2005, a sectorial reorganization brought together the State Land Committee (Goskomzem), the Land Registry and Cadastre (Uzgeodescadastre), and the Cadastral Bureau of Technical Inventory (Building Registry) to form GKZGDK as the agency responsible for the state cadastre (land, buildings, and apartments) and spatial databases (Real Property Registry and Cadastre and National Geographical Information System). However, the institutional consolidation has not been accompanied by a full consolidation of records and services, and a number of challenges for property registration and data accessibility remain, including: (i) lack of efficiency and accuracy due to the existence of too many manual and paper-based operations; (ii) a somewhat outdated legal framework that does not support modern methods of registry and cadastre operations; (iii) a lack of standardized and enhanced technology; (iv) insufficient human resource capacity; and (v) an inadequate fee structure that does not reflect inputs and costs. Overall, the system is regarded as bureaucratic and cumbersome, and while there is no registration fee, the total cost of a property transaction is high.

5. By 2007, GKZGDK, with technical assistance from the European Union (EU), had introduced a computerized real property registration application named “Uzbek Land Registry 2.2” (UZLR) in the Samarkand, Tashkent and Khorezm regions. In 2009, conversion from manual to computerized records also started in other regions, but progress has been slow. UZLR initially improved the registration system, but the application is now outdated, its coverage has not expanded to the rest of the country, and maintenance of the system is non-existent. In 2012-2013, with the approval of the eGovernment Master Plan, endorsement was given for the development of a new system at the national level. A presidential resolution (No. PP-1989, 27 June 2013) established the Integrated Information System for Real Property Registration and Cadastre (IISRPRC) and the National Geographical Information System (NGIS) as two of the six basic components of the e-Government platform and assigned responsibility to GKZGDK to establish and manage them. In a parallel initiative, a new Law on State Registration of Rights to

Immovable Property was drafted to reflect the transfer to fully computerized real property registration and services, and is currently under review by the Cabinet of Ministers. These initiatives demonstrate the Government's keen interest in reforms in this sector and the commitment to bring the country into line with the others in the region, including many of the transition economies that have already moved from paper-based to computer-based land registry and cadastre systems.

6. In 2014-2015, the Bank started its engagement in the land sector in Uzbekistan through a Land Administration Dialogue Technical Assistance (TA) aimed at improving capacity to undertake the modernization of land administration based on international experience. Analytical work and knowledge exchange activities supported by the TA helped to further define IISRPRC and start its implementation as part of the national eGovernment structure and services.

C. Higher Level Objectives to which the Project Contributes

7. The proposed project is in line with the priorities set out in the current Country Partnership Strategy (CPS) for 2012-2015, which was approved by the World Bank Board in December 2011, and the proposed Country Partnership Framework (CPF) for 2016-2020. Specifically, the project will contribute to the CPS objective of improving the economy's competitiveness and the CPF objective of promoting private sector and job growth by increasing the efficiency of the real property and mortgage market, and more broadly by providing the ICT/spatial base and infrastructure for a modern market economy. The project will further contribute to improving governance and access to information (a CPS and CPF cross-cutting theme) by improving the transparency of property ownership and transactions, customer orientation, attention to beneficiary feedback and inclusiveness of services, and facilitating spatial data access, exchange and sharing at the national and local levels. It will further promote social inclusion by improving access to real property data and outcomes of social services through the provision of gender disaggregated data on real properties. Finally, the project will build institutional capacity through extensive training for government officials and private sector land and real estate professionals, thereby improving the business environment and developing human resource capital.

II. PROJECT DEVELOPMENT OBJECTIVES

A. PDO

8. The Project's Development Objective is to establish an efficient and accessible real property registration and cadastre system in the Republic of Uzbekistan as part of the national eGovernment structure and services.

9. The project will achieve this by (i) improving business processes and customer orientation in the real property register and cadastre, (ii) creating a fully digital real property register and cadastre system that is accessible online to the public, (iii) improving the regulatory and operational environment of the real property register and cadastre, (iv) facilitating spatial data access, exchange and sharing at the national level, and (v) raising awareness on the importance of real property rights.

10. Real property registration and cadastre modernization, including building efficient and accessible systems and the capacity needed to operate and maintain them, is a continuous investment that requires support over the long haul. Completing this requires years of detailed work and resolution of numerous contentious issues, which always arise when establishing a new system as fundamental as this. As such, this project should be seen as the first phase of a longer-term program, and as a key building block of a modern system that facilitates economic development and good governance by having reliable and accessible records for all real property. The project will focus on providing a new electronic real estate registration and cadastre system and the spatial data for its operationalization, including key strategy and regulatory reforms. Once the fundamental system and information base has been developed, a potential second phase would focus on the next level interventions, including supporting the use of land registry and cadastre data for a variety of market economy services and fiscal purposes in line with the planned eGovernment functions (such as municipal services, emergency management, land use planning and development control, land development, real estate market monitoring, utilities management, property valuation and taxation).

Project Beneficiaries

11. The direct project beneficiaries are: (i) the public, who can own, acquire, lease, mortgage and use real estate under the protection of legal registration of rights; (ii) the investing business community who can rely on secure access to real estate and improved access to credit; (iii) government institutions and municipalities in general that can access accurate spatial information online; and (iv) GKZGDK, in particular, which would gain from more efficient and sustainable operations. Society overall would also indirectly benefit from improved land governance supported by up-to-date and accessible spatial and legal information on real estate and their transactions, which would increase accountability and informed decision making, as well as policy-making concerning land, real estate and natural resources.

PDO Level Results Indicators

12. Key development performance indicators are:
- Improvement in users' perception of the quality of real property registration services (%);
- Direct project beneficiaries (joint and individual real property holders) with registered rights accessible in digital forms, and the percentage of which are female (%);
- Procedures needed to register rights to a real property (number);
- Public access to integrated real property registration services online (% of property holders);
- Registration and information services fees introduced. (Y/N).

III. PROJECT DESCRIPTION

A. Project Components

13. The project will include the following four components:

14. **Component A – Real Property Registry and Cadastre System Development** (US$13.35 million). This component will support an incremental development and roll-out of IISRPRC including the development of IISRPRC's infrastructure and the revision and improvement of the operational environment, procedures, service standards, and applications. Initially, the component will support a business process and performance standard review and identify the changes needed to improve GKZGDK's real property registration and cadastre maintenance functions. Based on the results of this review, the component will support the phased development (with incremental operationalization) of a modern Web-based real property registry and cadastre application with advanced performance and functionalities, one-stop-shop client interface, and integrated map solutions. New IISRPRC releases will be tested in pilot offices over the course of development. Eventually, IISRPRC, supported by appropriate hardware and communications infrastructure, will be rolled out to GKZGDK's oblast offices (which will become IISRPRC's production offices) and one-stop-shop front-end desks (integrated into the eGovernment structure) in rayons/cities. The component will further finance the renovation of GKZGDK's Data Center and provide the needed engineering systems.

15. **Component B – Real Property Registration and Cadastre Data Development** (US$4.92 million). This component will support provision of the digital attribute and spatial data that will enable the IISRPRC operationalization by: selectively mass digitizing all essential registration and cadastre documents, prioritizing current versus archived records; compiling uniform countrywide digital datasets for a base map and property right units for a cadastre index map; and harmonizing these datasets and populating the IISRPRC's unified central database. Most of the current and archived records are paper-based. The mass digitization and digital data processing will be carried out in-house by GKZGDK staff. The component will support: building up the in-house GKZGDK capacity to plan, manage, and monitor the implementation, assure the quality, and carry out the data development campaign; a mass digitizing technology, including the design of a transitional data model, work processes and tools, quality control, and transitional storage and updating procedures prior to IISRPRC population and roll out. The component will contribute to the operationalization of the eGovernment and NGIS programs by providing fundamental spatial datasets. Finally, the component will improve GKZGDK's Oblast production offices' general working conditions through office design and renovations and provision of furniture and equipment.

16. **Component C – Use of Real Property Registry and Cadastre Data** (US$1.33 million). This component will support activities aimed at enhancing public on-line use of IISRPRC's data, which form the core dataset of the geospatial data framework and the geospatial base for a variety of market economy services and fiscal purposes. The component will support enhanced interoperability and efficient data sharing and exchange with other governmental stakeholders, such as the State Tax Committee, the Census Registry, line ministries and regional and district governments, city administrations, etc. Specifically, the component will support: (i) the development of a geospatial data framework strategy and technical guidelines for its implementation; (ii) the development of a technological framework for implementation; and (iii) the establishment of a GeoPortal that will provide the "one-stop-shop" for all geospatial information and related online services. The component will further support the creation of a new open coordinate reference system (CRS) in the country, and the provision of a control center

to the country's Continuously Operating Reference Stations (CORS) network. Finally, the component will support the development of a mass valuation system prototype as the first applied electronic service of IISRPRC and GKZGDK with high potential to serve state asset management, property taxation and other public functions, as well as enhance property markets by improving access to reliable market information.

17. **Component D – Institutional Development and Project Management** (US$2.91 million). This component will ensure effective management of the project and sustainability of its results. It will support the strengthening of the legislative and regulatory framework for real property registration and real property markets, agriculture modernization and farmland tenure, and institutional development of the country's real property registry and cadastre. Specifically, the component will support: (i) business planning with an aim to achieve full cost recovery and/or self-financing, as well as accounting, statistics collection, and analysis; (ii) development of service standards and codes of conduct, transparency and beneficiary feedback initiatives (e.g., public awareness campaigns, customer hotline), and on-line operations manuals; (iii) the improvement of the policy and regulatory environment of real property registration and real property and land markets through studies on key issues and legislative drafting; (iv) sectorial education reforms and curriculum development (in law, surveying, cadastre, valuation, land management, GIS/SDI); and (v) training of GKZGDK and other public and private sector personnel in real property registration, cadastre services and real property markets, as well as inclusive service orientation. Regular customer satisfaction surveys will monitor the impact of these activities and inform project implementation. The component will further facilitate international and local technical assistance to support project implementation and transfer best practice knowledge to Uzbekistan. Finally, this component will support a Project Implementation Unit (PIU) under GKZGDK that will be responsible for project management, fiduciary functions, and monitoring and evaluation.

B. Project Financing

18. The Project will be financed through an IDA credit in the amount of US$20 million equivalent and will be implemented over a five-year period. The Recipient of the credit will be the Republic of Uzbekistan represented by the Ministry of Finance (MOF).

Project Cost and Financing

19. The total cost of the project is estimated at US$25 million. The Recipient's project financing is US$5 million, or 20 percent of the total project cost. The project cost breakdown is presented in Table 1 below.

20. **Complementary support**. Prior to project effectiveness, the World Bank Europe and Central Asia Region's Capacity Development Trust Fund (ECAPDEV) will finance technical assistance for project preparation, which will allow for the finalization of detailed project plans, initial capacity building, and knowledge transfer. In addition, multiple development agencies are supporting land administration modernization in Uzbekistan. The Korean Eximbank's support to the NGIS program includes limited support for the development of IISRPRC; UNDP is engaging with the Chamber of Commerce on registration process reviews in support of business climate

improvement; and ADB is implementing a small program to improve eGovernance, including activities related to strengthening property registration.

Table 1 – Project Cost and Financing by Component:

Project Components	Project cost (US$)	IDA Financing (US$)	% Financing
1. Real Property Registration and Cadastre System Development	13.35	10.68	53
2. Digitization of Real Property and Cadastre Records and Maps	4.92	3.95	20
3. Use of Real Property Registry and Cadastre Data	1.33	1.06	5
4. **Institutional Development and Project Management**	2.91	2.33	12
Contingencies	2.50	2.00	10
Total Costs	25	20	100
Total Project Costs	25	20	100
Total Financing Required	25	20	100

C. Lessons Learned and Reflected in the Project Design

21. The World Bank has funded land reform, land administration, and land management projects in the Europe and Central Asia region (ECA) since the mid-1990s (through over forty projects). The privatization of land and property assets and their efficient management and mobilization in the credit markets have been at the center of the transitional reforms to date. As Uzbekistan is among the last countries in the region to introduce a digital system for real property registration and cadastre, the project design has incorporated lessons learned from this experience, which shows that:

i. The early stages of land registration development should focus on establishing efficient systems in support of emerging real property markets rather than fully covering records;
ii. Public perception and participation is critical for success, and public awareness and education campaigns add important value;
iii. In the region, and in particular in the post-Soviet Union countries, a well-functioning real property registration system that serves market needs and provides greater tenure security to land holders can be introduced in a relatively short time span and can be financially sustainable;

iv. The technical leap forward needs to be combined with a capacity building program to transform land administration agencies into customer-centric service organizations that also engage in social development activities;
v. Reform of technical processes and the legal/regulatory framework needs to move in parallel;
vi. The development and roll-out of an integrated electronic system is challenging. In-house ICT system development and incremental approaches have proven easier to implement than large-scale systems. A progressive expansion allows for a more targeted system development that becomes operational quickly, builds in-house capacity, is in line with the country's business needs, can make use of the latest technologies, and can mitigate risks effectively;
vii. Addressing gender inequality in access to formal property rights is important even if the law prescribes equal rights. Providing access to gender disaggregated data and including gender specific messages in public awareness campaigns, training, and education can have significant positive impact.

22. In addition, country-specific lessons learned from previous Bank engagements in Uzbekistan have also been incorporated in the project design, including: (i) when designing and implementing projects in new sectors, institutional and implementation arrangements need careful attention and intensive operational support, including building institutional capacities in project management, procurement, and financial management; and (ii) internal government processes for project preparation and implementation need to be taken into account early at the design stage to avoid (or shorten) potential delays in project launch and further implementation.

IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

23. GKZGDK, the main agency responsible for real property registration in the country, will be the project implementing agency. GKZGDK has good technical capacity at the central level and is the only state institution with the skills to support real property registration. However, its staff need training and sensitization to the modern era of registration of rights, e-government, and customer orientation, which will be addressed in the project.

24. Instead of establishing a project specific Steering Committee, the Recipient will provide policy guidance and overall project oversight to the Project through the Inter-ministerial Coordination Council established by the Resolution of the Cabinet of Ministers No. 229 dated August 12, 2009. In addition, GKZGDK will develop a mechanism for stakeholder coordination and consultation including, among others, the Ministry of Information Technology Development (MOITD), the Ministry of Economy (MOE), the Ministry of Finance (MOF) and the Taxation Committee, as well as representatives from related donor projects, and eventually also other key stakeholders from the public and private sector (professional users of the property registration and cadastre system, property holders' representatives, etc.). GKZGDK will be responsible for overall project implementation and coordination, and will establish a Project Implementation Unit (PIU) responsible for project management, fiduciary functions, and monitoring and evaluation. The PIU will be located in the National Center for Geodesy and Cartography and will include: (i) a Project Director; (ii) a Financial Management (FM) specialist; (iii) a Procurement

specialist; (iv) a Monitoring & Evaluation specialist; (v) an Information and Communication Technologies (ICT) specialist; (vi) a Registry/Cadastre specialist; (vii) a GIS specialist; (viii) a Civil Engineer/Architect; (ix) a Lawyer; and (x) secretarial and translation staff. Given that GKZGDK has no prior experience in implementing World Bank projects, fiduciary staff (procurement specialist and financial management specialist) familiar with Bank procedures will need to be recruited externally. The other PIU positions will be filled by either consultants or Government personnel using funds allocated to the project.

B. Results Monitoring and Evaluation

25. Monitoring and evaluation (M&E) of outcomes and results are a core part of the project design. The monitoring will focus on: (i) regular performance monitoring of project outputs through the establishment of a computerized M&E system; and (ii) periodic customer surveys to monitor customer satisfaction and compliance with service standards as well as issues related to cadastre renovations and their impact on users. A baseline customer survey will be adopted and carried out in the first year of project implementation. The PIU will be responsible for collecting and presenting data on output targets and progress in quarterly progress reports submitted to the government and the World Bank. Outcome indicators will also be monitored on a semi-annual basis by the World Bank implementation support missions.

C. Sustainability

26. The core elements of sustainability of project results will be institutional capacity building, coupled with a customer focus and improvement in service delivery, including the ability of the agency to provide real estate information to the government and the private sector. As such, the project will have a strong focus on institutional development and capacity building in ICT infrastructure maintenance, addressing the long-term challenges of sustainability, and governance of real estate registries. Arrangements will be established to ensure ongoing institutional continuity and development include the creation of an ICT Competence Center, as the long-term solution needed for the sustainability of the future IISRPRC. Other critical ICT development and maintenance arrangements supported by the project include: (i) the adoption of an open development environment that allows online monitoring of progress by all parties, and all-time access to source code; (ii) use of open source software where applicable; and (iii) facilitation of a knowledge transfer mechanism between the contractor and GKZGDK.

27. Moreover, the future sustainability of GKZGDK depends on it gaining more autonomy over its finances, while diversifying the sources of income. Currently, GKZGDK's main source of income is maintenance of the technical inventory record of each built real property, a labor-intensive activity with little sustainability. It is expected that, by increasing real estate market activity, GKZGDK will be able to collect its income from registration of property transactions. Sustainable maintenance of the IISRPRC requires GKZGDK to reform its business model accordingly and the project will promote such transformation through the development of strategic and business planning to secure government support for consolidation of the self-financing model.

V. KEY RISKS

A. Overall Risk Rating and Explanation of Key Risks

28. The project overall risk rating is Substantial based on the current residual risk, that is, after taking into account the impact of mitigation measures that have already been implemented. Potential risks are associated with: (i) weak capacity for management of a modern ICT infrastructure that requires skilled project management and maintenance; (ii) weak ICT infrastructure; (iii) organizational issues related to decentralization, and ICT staff recruitment and retention; and (iv) income-sharing between central, regional (oblast), and district (rayon) offices of GKZGDK, which currently operate on a self-financing basis. To mitigate the substantial risk to ICT sustainability (due to the vast office network of GKZGDK offices—a total of 214 at the Central, Oblast, Rayon, and City levels) the project will center IISRPRC operations within GKZGDK's oblast offices and integrate customer interaction into the eGovernment structure and one-stop-shops at the rayon level. Importantly, the project takes an incremental approach to ICT development and procurement, initially producing simple basic solutions and functionalities and applying them to production under a phased approach. Once the basic solutions and functionalities are fully proven in test and operational environments, the project will invest in the system roll-out and additional functionalities. In addition, the project will include substantial investment in capacity building and training and provide international technical assistance on IT and other technical activities throughout the life of the project, including the establishment of an ICT Competence Center. Weak governance in general increases project risks, which will be mitigated through the World Bank's procurement guidelines and capacity building. Similarly, risks related to GKZGDK's lack of experience with World Bank Procurement Guidelines, and potential non-compliance and even mis-procurement as a result of the authorities' price verification process, will be mitigated through provision of training throughout project implementation.

29. Regarding social and stakeholder risks, the project will prepare a Social Assessment (SA) to understand the social context of land, potential vulnerable groups and potential unintended outcomes. The risk related to the potential rationalization of rayon offices and eventually downsizing is considered moderate. Similar experiences in the region show that this is generally a long (over two decades) and gradual process that can be managed through project support to the development of business planning. The SA will identify specific elements (to be detailed in the Project Operations Manual - POM) that promote inclusion in a context-responsive manner such as public awareness, customer service, and transparency in operations. The project will further monitor social impact through customer and public perception surveys.

30. The project's technical investment agenda can be implemented without policy and regulatory changes in the initial stages, although achieving its goals and maximizing its impact will require regulatory changes. Such changes will be needed in particular for releasing spatial data for public consumption, which is currently inhibited by both restrictive regulations and the predominant culture of not encouraging the sharing of information. Moreover, maximizing the real property market impact will require an easing of various land-use and transfer restrictions, as well as other legal reforms noted in the legal appraisal below. The project includes targeted technical assistance on policy and legal issues.

VI. APPRAISAL SUMMARY

A. Economic and Financial (if applicable) Analysis

31. The Project is expected to bring significant gains for the country. The first three components linked to the property registration and cadastre (system and data) development and use is estimated to bring in several economic and financial benefits, including: (i) reduced transaction procedures (steps)[2]; (ii) reduced transaction cost; (iii) increased sales of buildings; (iv) increased mortgage market activity; (v) increased SME access to finance; and (vi) increased property tax collection. The fourth project component will help the Uzbekistan Government to develop sustainable business models for GKZGDK and for maintaining IISRPRC, resulting in savings to GKZGDK's current budget allocation. Studies done on similar projects in the Europe and Central Asia Region show economic and financial impacts of around 2.22x the initial investment, and a rate of return is 122%; an economic analysis conducted for this project (Annex 5) forecasts similar returns.

B. Technical

32. **Information technology**. The country has already developed digital cadastre records for a number of regions, with the most complete spatial cadastre datasets developed for the Tashkent City Cadastre. The project will build on the existing systems and will adopt a cautious, incremental approach to the electronic registration system development, gradually intensifying the use of information technologies module by module. The system's operationalization will be phased and each new version/module will be piloted in test environments and later in designated offices. This gradual approach will ensure reliable registration operations at all times while allowing progress towards an efficient and accessible real property registry and cadastre system. This approach will further allow supporting investments with simple and realistic targets, while using and strengthening local capacity for further system expansion.

33. **Legal Framework**. The legal framework for land administration, surveying and registration has developed over the last twenty years. The Constitution and key laws, such as the Land Code, provide the foundation for a system of state ownership of land, with individuals and legal entities holding *use rights* (of several types) to *land* and *ownership rights* to *built property*. Tenure security is, therefore, compromised by the complicated tenure dualism still common in the post-Soviet Union countries. However, because the project focuses on improving the registration of existing rights, the constrained tenure system presents no direct problem for implementing project activities or achieving project objectives. State registration of rights to land is regulated by the Law on State Land Cadastre of 1998, which provides a basic legal framework for registration and mapping activities; however, regulations will need to be expanded to support the more sophisticated systems, use of new technology, and improved customer services planned under the project. Other legislation will also be required for such things as spatial data exchange,

[2] Registration of purchase/sale transactions (which is one of the procedures to complete the transaction process) already happen in one day in GKZGDK offices; however, the overall property transaction process takes 46 days (Doing Business 2016).

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new financial and institutional arrangements within GKZGDK, use of e-documents and e-signatures for registration services, and dispensing with paper registry books. Other laws, such as those on mortgage, notary, and appraisal, are also likely to require modification. However, the current legal framework provides an adequate basis to commence project activities, with a reform program to run throughout the project period. All laws are drafted in a gender-neutral way, and the Constitution and Family Code contain a range of provisions that are designed to protect the rights of women.

C. Financial Management

34. GKZGDK (through its PIU) will be responsible for financial management and disbursement during project implementation, including planning, budgeting, accounting, financial reporting, funds flow, internal controls and auditing. Given that GKZGDK does not have prior experience in the implementation of World Bank-financed projects, FM and disbursement arrangements will be acceptable once the following conditions are met: (i) an experienced FM consultant is hired before project effectiveness; (ii) a Project Operational Manual (POM) is prepared before effectiveness, which describes in detail the planning, budgeting, accounting, internal control, reporting and auditing procedures to be followed by GKZGDK and its PIU; and (iii) an accounting system is installed and tailored to meet the World Bank requirements before effectiveness.

35. The PIU will manage project payments and maintain project accounting records, which will be segregated for this project. The PIU will be responsible for submission of quarterly unaudited interim financial reports (IFRs) and audited annual project financial statements to the World Bank. The annual audited financial statements together with the auditor's opinion and the management letter will be provided to the Bank within six months of the end of each fiscal year and at the closing of the project. The PIU will be responsible for the selection and appointment of the project auditor, according to Terms of Reference acceptable to the Bank, to be financed from the credit funds.

36. The overall financial management residual risk for the project is Substantial in the current environment considering the country risk and the fact that this is the first World Bank-financed project to be implemented by GKZGDK. Furthermore, due to country risk and weaknesses noted during the assessment, no elements of the country system are planned to be used under the Project.

D. Procurement

37. The 2003 Country Procurement Assessment (CPA) conducted by the World Bank and ADB identified a number of weaknesses in the public procurement system in Uzbekistan that largely remain: (i) absence of a unified legislative framework; (ii) inefficient and nontransparent procurement practices; (iii) absence of a single institution with oversight or regulatory function for public procurement; (iv) weak capacity for reviewing bidders' complaints; (v) complicated internal review/approval of bid evaluation reports that lead to lack of accountability and delays; (vi) no comprehensive anti-corruption measures; and (vii) low skills/capacity of the staff handling public procurement at various administrative levels. Private sector suppliers and contractors remain unsatisfied with the rules governing public procurement and have little

confidence in the system's fairness. Though the Government has started extensive reforms of its public procurement system, recent assessments under the Country Integrated Fiduciary Assessment (CIFA, 2012) and Public Expenditure and Financial Accountability (PEFA, 2013) studies indicate that so far not much has changed in the public procurement environment. Thus, the procurement environment is considered a high risk.

38. The Bank conducted a procurement capacity assessment of GKZGDK in July 2015. Given that GKZGDK has no prior experience in working with World Bank-financed projects, the PIU will hire a procurement specialist to assist in project implementation and in conducting procurement under the project. The procurement capacity assessment identified the following additional risks: (i) the government's decrees, rules and regulations have internal conflicts in major provisions, such as price verification, that lead to considerable delays in project procurement and implementation; (ii) obtaining bank guarantees for bid security and performance security is difficult for local bidders, and no alternative instruments are available for this purpose in the country's banking system, particularly for joint ventures; (iii) there are a number of bid evaluation committees and stages, the interdepartmental tender committee consists of eleven members, and the signing of minutes takes at least 2 months; (iv) a tender takes a minimum of 8 to 12 months from the bid opening to the start of contract implementation; and (v) there are considerable procurement-related delays of registration by the Ministry of Foreign Economic Relations, Investment and Trade (MFERIT) involving international contractors/consultants. The risk mitigation plan is included in Annex 3. After risk mitigation, the procurement capacity and arrangements at the project level are considered acceptable. Hiring of an experienced procurement specialist is required by the time of project effectiveness. Procurement training will be provided to the procurement specialist and GKZGDK staff throughout project implementation.

39. Procurement for the project will be carried out according to the World Bank's "Guidelines: Procurement of Goods, Works and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers" published in January 2011(Procurement Guidelines), revised July 2014 and "Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers," published in January 2011 (Consultant Guidelines) and revised July 2014. More detailed information concerning procurement under the project is described in Annex 3, Procurement Implementation Arrangements.

E. Social (including Safeguards)

40. The project does not trigger any social safeguards, as there is no land acquisition involved or other activities resulting in changes to land ownership, access or tenure. As such, no negative social impacts of the project are foreseen. The project is expected to have some positive social impact through an explicit focus on gender and social inclusion in several project activities. Even though the law prescribes equal rights to women regarding formal property ownership, men are more likely to hold property and be in charge of decisions related to property transactions due to cultural norms and practices. Collecting gender disaggregated data on numbers of property holders through the digital real property registry will generate evidence for further analysis on this issue. To develop a more nuanced understanding of social and gender issues related to land tenure and registration, a social assessment will be carried out under the

ECAPDEV Grant. The results of the assessment will inform the design of public information and targeted communication campaigns and contribute to proposals for reforms to ensure greater inclusion. The project will also have a positive impact on improving the way GKZGDK engages with citizens. Support will be provided to develop public awareness campaigns, with particular focus on targeting more vulnerable groups. To improve the transparency and responsiveness of services delivered by GKZGDK, mechanisms for gathering citizen feedback will be strengthened and customer orientation improved. Existing mechanisms for citizen appeals will be reviewed and recommendations for strengthening them will be developed, including improving the existing customer hotline, which will act as a mechanism for providing more detailed procedural guidance to the customers, serve as a grievance redress mechanism, and collect valuable feedback for improving procedures and policies. The project will also introduce customer satisfaction surveys (gathering gender-disaggregated information), which will be undertaken at regular intervals, to provide an analysis of the trends in customer satisfaction. Additionally, public consultations on relevant policy and procedural issues will be organized.

F. Environment (including Safeguards)

41. A substantial number of GKZGDK's Oblast offices will be renovated as an associated activity of Component B. Potential environmental impacts associated with these types of interventions usually include dust, noise, disposal of waste material and/or older equipment, some traffic disruption (depending upon specific locations), and worker safety (e.g., works at height). These impacts are expected to be minor, short-lived, and primarily limited to the project sites (except for movement of equipment and materials to and from the sites). Therefore, the Project triggers OP/BP 4.01 Environmental Assessment safeguards policy and is classified as an environmental Category "B".

42. All impacts mentioned above can be addressed with good engineering and construction practices and with mitigation and monitoring measures specified in the project Environmental Management Framework (EMF) prepared by GKZGDK and approved by the World Bank.

G. Other Safeguards Policies Triggered *(if required)*

43. N.A.

H. World Bank Grievance Redress

44. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit

http://www.worldbank.org/GRS. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

Annex 1: Results Framework and Monitoring

Country: Uzbekistan

Project Name: Modernization of Real Property Registration and Cadastre (P151746)

Results Framework

Project Development Objectives

PDO Statement

The Project's Development Objective is to establish an efficient and accessible real property registration and cadastre system in the Republic of Uzbekistan as part of the national eGovernment structure and services.

The project will achieve this by: (i) improving business processes and customer orientation in the real property registry and cadastre; (ii) creating a fully digital real property registry and cadastre system (i.e. IISRPRC) accessible online to the public; (iii) improving the regulatory and operational environment of the real property registry and cadastre; (iv) facilitating spatial data access, exchange and sharing at national level; and (v) raising awareness on the importance of real property rights.

These results are at	Project Level

Project Development Objective Indicators

	Cumulative Target Values						
Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	End Target
Improvement in users' perception of quality of real property registration services (disaggregated by gender). (Percentage)				5.0		10.0	10.0
Direct project beneficiaries (Number) - (Core)	717641	910000	1170000	1430000	1690000	1950000	1950000
Female beneficiaries (Percentage - Sub-Type: Supplemental) - (Core)	20.00	35.00	36.00	37.00	38.00	40.00	40.00
Procedures needed to register rights to a real property.	9.00	9.00	8.00	7.00	7.00	6.00	6.00

(Number)							
Public access to integrated real property registration services online. (Percentage)	0.00	0.00	0.00	15.00	30.00	50.00	50.00
Registration and information services fees introduced. (Yes/No)	No	No	No	No	Yes	Yes	Yes

Intermediate Results Indicators

	Cumulative Target Values						
Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	End Target
Real property registration and cadastre business processes re-engineered for digital operations (Yes/No)	No	No	Yes	Yes	Yes	Yes	Yes
New Real Property Registry and Cadastre ICT system operational in pilot offices (Yes/No)	No	No	No	Yes	Yes	Yes	Yes
Data Center operational and available digital data uploaded into the unified database (Yes/No)	No	No	No	Yes	Yes	Yes	Yes
New Real Property Registry and Cadastre ICT system operational in State Committee's regional offices (including Tashkent City and Karakalpakistan offices) (Number)	0.00	0.00	0.00	2.00	6.00	14.00	14.00
Current real property unit data accessible in digital form. (Percentage)	7.50	7.50	10.00	30.00	50.00	80.00	80.00
Registered real property data accessible in digital form. (Percentage)	28.70	28.70	30.00	45.00	60.00	80.00	80.00
Target land area with use or ownership rights recorded as a result of project	7291	50000	150000	300000	450000	700000	700000

(Hectare(Ha)) - (Core)							
Real property and cadastre records uploaded into the new Real Property and Cadastre ICT system. (Percentage)	0.00	0.00	5.00	20.00	35.00	50.00	50.00
Digital Cadastre Index Map coverage of the inhabited territory of Uzbekistan. (Percentage)	0.00	0.00	5.00	25.00	50.00	70.00	70.00
NSDI strategy adopted by the government (Yes/No)	No	No	No	No	Yes	Yes	Yes
Geoportal operational (Yes/No)	No	No	No	No	Yes	Yes	Yes
New open coordinate reference system established (Yes/No)	No	No	No	No	Yes	Yes	Yes
Methodology for mass valuation using cadastral data developed (Yes/No)	No	No	No	No	No	Yes	Yes
New Real Property Registration and Cadastre system integrated into NGIS system (Yes/No)	No	No	No	No	Yes	Yes	Yes
Real property registration Public Awareness Campaigns completed (Number)	0.00	0.00	1.00		2.00	3.00	3.00
Online operations manual for real property registration and cadastre operations established (Yes/No)	No	No	No	Yes	Yes	Yes	Yes
Code of Conduct and Service Standards published for real property registration and cadastre operations. (Yes/No)	No	No	No	Yes	Yes	Yes	Yes
Annual business plan adopted by the State Committee. (Yes/No)	No	No	No	No	Yes	Yes	Yes

Laws and regulations proposals for digital real property and cadastre registration submitted for approval (Number)	0.00	0.00	0.00	0.00	1.00	2.00	2.00
Real property register and cadastre personnel trained (with gender disaggregated information of trainees provided). (Number)	0.00	500	500	500	500	3000	3000
Project's monitoring and evaluation system and quarterly reporting operational. (Yes/No)	No	Yes	Yes	Yes	Yes	Yes	Yes

Indicator Description

Project Development Objective Indicators

Indicator Name	Description (indicator definition etc.)	Frequency	Data Source / Methodology	Responsibility for Data Collection
Improvement in users' perception of quality of real property registration services (disaggregated by gender).	This indicator will measure, through a range of parameters, male and female users' perception of the quality of real property registration services, as measured	Bi-annually	Customer surveys to be conducted in YR1 (baseline), YR3 and YR5	GKZGDK/PIU
Direct project beneficiaries	Direct beneficiaries are people or groups who directly derive benefits from an intervention (i.e., children who benefit from an immunization program; families that have a new piped water connection). Please note that this indicator requires supplemental information. Supplemental Value: Female beneficiaries (percentage) . Based on the assessment and definition of direct project beneficiaries, specify what proportion of the direct project beneficiaries are female. This indicator	Annually	GKZGDK records	GKZGDK/PIU

	is calculated as a percentage.			
Female beneficiaries	Based on the assessment and definition of direct project beneficiaries, specify what percentage of the beneficiaries are female.	Annually	GKZGDK records	GKZGDK/PIU
Procedures needed to register rights to a real property.	Based on Doing Business Report 2016 methodology, but measured by the PIU.	Annually	GKZGDK records/Doing Business Reports	GKZGDK/PIU
Public access to integrated real property registration services online.	This indicator measures the percentage of real property holders with access to real property registration services online through the new integrated registry and cadastre system.	Annually	GKZGDK records	GKZGDK/PIU
Registration and information services fees introduced.	This indicator measures regulatory status to allow GKZGDK to charge registration fees.	Annually	Cabinet resolution	GKZGDK

Intermediate Results Indicators

Indicator Name	Description (indicator definition etc.)	Frequency	Data Source / Methodology	Responsibility for Data Collection
Real property registration and cadastre business processes re-engineered for digital operations	This indicator measures whether the existing real property registry and cadastre business processes have been re-engineered for digital operations.	Semi-annually	Progress reports	GKZGDK/PIU
New Real Property Registry and Cadastre ICT system operational in pilot offices	This indicator measures whether the new Integrated Real Property Registry and Cadastre system has been developed, tested and made operational with basic functionalities in selected pilot offices.	Semi-annually	Progress reports	GKZGDK/PIU
Data Center operational and available digital data uploaded into the unified database	This indicator measures whether the Data Center is operational and populated.	Semi-annually	Progress reports	GKZGDK/PIU
New Real Property Registry	This indicator measures the number of regional	Semi-	Progress reports	GKZGDK/PIU

and Cadastre ICT system operational in State Committee's regional offices (including Tashkent City and Karakalpakistan offices)	offices (including the independent City of Tashkent and the autonomous republic of Karakalpakistan) to which the new Real Property Registry and Cadastre ICT system has been rolled out.	annually		
Current real property unit data accessible in digital form.	This indicator measures the percentage of current real estate unit data (including apartments, individual houses with land plots; non-residential units, farms with land plots, and a small number of government units) that have been scanned, verified and quality checked and made available for online searching and viewing.	Semi-annually	Progress reports	GKZGDK/PIU
Registered real property data accessible in digital form.	This indicator measures the percentage of registered properties made available for online searching and viewing.	Semi-annually	Progress reports	GKZGDK/PIU
Target land area with use or ownership rights recorded as a result of project	This indicator measures the area over which use or ownership rights have been recorded as a result of the project. The baseline value is expected to be zero.	Semi-annually	Progress reports	GKZGDK/PIU
Real property and cadastre records uploaded into the new Real Property and Cadastre ICT system.	This indicator is self-explanatory.	Semi-annually	Progress reports	GKZGDK/PIU
Digital Cadastre Index Map coverage of the inhabited territory of Uzbekistan.	This indicator measures the percentage of the territory of Uzbekistan covered by a digital cadastre index map.	Semi-annually	Progress reports	GKZGDK/PIU
NSDI strategy adopted by the government	This indicator is self-explanatory.	Semi-annually	Progress reports	GKZGDK/PIU
Geoportal operational	This indicators measures whether the Geoportal is operational and is publicly accessible.	Semi-annually	Progress reports	GKZGDK
New open coordinate reference system	This indicator measures whether the legal basis for a new open Coordinate Reference System is in	Semi-annually	Progress reports	GKZGDK/PIU

established	place.			
Methodology for mass valuation using cadastral data developed	This indicator measures whether there is a digital, cadastral data based mass property valuation methodology in place.	Semi-annually	Progress reports	GKZGDK/PIU
New Real Property Registration and Cadastre system integrated into NGIS system	This indicator measures whether the new Real Property Registration and Cadastre system and the National Geographical Information System are linked.	Semi-annually	Progress reports	GKZGDK/PIU
Real property registration Public Awareness Campaigns completed	This indicator is self-explanatory.	Bi-annually	Progress reports	GKZGDK/PIU
Online operations manual for real property registration and cadastre operations established	This indicator measures whether an on-line operations manual for registration and cadastre operations has been established.	Semi-annually	Progress reports	GKZGDK
Code of Conduct and Service Standards published for real property registration and cadastre operations.	This indicator measures whether a Code of Conduct and Service Standards for real property registration and cadastre operations have been published online.	Semi-annually	Progress reports	GKZGDK/PIU
Annual business plan adopted by the State Committee.	This indicator is self-explanatory.	Annually	Progress reports	GKZGDK/PIU
Laws and regulations proposals for digital real property and cadastre registration submitted for approval	This indicator measures whether draft legislative instruments (resolutions, regulations, amendments to laws, etc.) in support of digital real property and cadastre registration have been prepared and submitted to the competent authority for approval.	Semi-annually	Progress reports	GKZGDK/PIU
Real property register and cadastre personnel trained (with gender disaggregated information of trainees provided).	This indicator is self-explanatory.	Semi-annually	Progress reports	GKZGDK/PIU

Project's monitoring and evaluation system and quarterly reporting operational.	This indicator measures whether the project Monitoring and Evaluation system is in place and provides the necessary information and data to assess progress and identify bottlenecks.	Quarterly	Progress reports	GKZGDK/PIU

NB: The Core Sector Indicator on "Average number of days to complete the recordation of purchase/sale of a property in the land administration system" is not relevant as these transactions already happen in one day. However, the overall property transaction process takes 46 days (Doing Business 2016).

Annex 2: Detailed Project Description

UZBEKISTAN: Modernization of Real Property Registration and Cadastre Project

1. The Project's Development Objective is *to establish an efficient and accessible real property registration and cadastre system in the Republic of Uzbekistan as part of the national eGovernment structure and services*. The project will achieve this by (i) improving business processes and customer orientation in the real property register and cadastre, (ii) creating a fully digital real property register and cadastre system accessible online to public, (iii) improving the regulatory and operational environment of the real property register and cadastre, and (iv) facilitating spatial data access, exchange and sharing in a national level, and (v) raising awareness on the importance of real property rights.

2. The project will have the following key development performance indicators:
- Improvement in users' perception of the quality of real property registration services (%);
- Direct project beneficiaries (joint and individual real property holders) with registered rights accessible in digital forms, and the percentage of these that are female (%);
- Procedures needed to register rights to a real property (number);
- Public access to integrated real property registration services online (%);
- Registration and information services fees introduced (Y/N).

3. The project will include four components:
A - Real Property Registration and Cadastre System Development (US$13.35M);
B - Real Property Registration and Cadastre Data Development (US$4.92M);
C - Use of Real Property Register and Cadastre Data (US$1.33M); and
D - Institutional Development and Project Management (US$2.91M).

Component A – Real Property Registration and Cadastre System Development (US$13.35 million)

4. This component will support the incremental development and roll-out of a new Integrated Information System for Real Property Registration and Cadastre (IISRPRC), including the development of IISRPRC's infrastructure and improved operational environment, procedures, service standards and applications. Initially, the component will facilitate a business process and performance standard review and reform of GKZGDK's real property registration and cadastre work. Based on this, the component will support the phased development and incremental operationalization of IISRPRC with advanced performance and functionalities, one-stop-shop client interface, and integrated cadastre map solutions. IISRPRC will be tested in the pilot offices before rolling out to GKZGDK's Oblast offices (as the system's production offices) and one stop shops front-end desks supported by appropriate hardware and communications infrastructure. The component will reconstruct and renovate the GKZGDK's main data center's premises and equip the center with appropriate engineering systems.

A.1 Business Analysis and Processes Re-Engineering

5. The objective of this sub-component is to analyze and re-define the existing real property registry and cadastre business processes and to modify and replace them to establish efficient customer service standards and comply with the international best practices of real property registration. Initially the sub-component will support business needs, business processes, data model and performance standards analysis, and based on this will re-engineer and develop new processes for IISRPRC. The aim is to enable organizational transition from mostly paper based land registration and cadastre operations to a fully digital environment improving system accuracy, transparency, efficiency, security and quality.

6. Non-exclusively, the following core processes will be analyzed and re-engineered either in-house or through outsourcing:

a. Registration of rights;
b. Cadastre maintenance;
c. Technical inventory and valuation;
d. Data digitization, geo-referencing and management, including legal and textual cadastral records, cadastral surveys and plans, and conversion of existing digital data.

7. The aim of the re-engineered business processes and a new data model is to achieve: (i) unification of data structures and processes; (ii) simplification and optimization of the processes in accordance with international best practices; (iii) definition of processes and functions for creation, modification and maintenance of a seamless cadastral map; (iv) definition of public and third party online access, services and related processes; and (v) specification of detailed business requirements, conceptual data model requirements and technical specifications for IISRPRC, (vi) define existing data capture work processes, data model, technologies and quality control.

A.2 Development of IISRPRC

8. The objective of this sub-component is to develop a modern Web-based ICT solution for IISRPRC of international best practice. The sub-component will support phased development of a unified, centralized nationwide system for integration with a new eGovernment one-stop-shop network hosted by the Ministry of Justice. Basic real property registry and cadastre transaction processes are the immediate priorities for urgent application and the system functionality may be incrementally increased thereafter.

9. IISRPRC will be designed for the re-engineered work processes and based on the new data model. The data model will be compliant with the Land Administration Domain Model (LADM, ISO Guideline 19152). A fit-for-purpose solution will be sought taking into consideration the sophistication of facilitated services, volume of operations (currently ~ 1,800,000 transactions a year), GKZGDK and private sector ICT management and development capacities, and investment and maintenance costs (the project will not finance system maintenance costs, but supports a development of a financing model and plan for the system). Open source software is proposed to serve as the system core technology with a key requirement to the software system vendors to provide full source code of the solution and ensure knowledge

transfer to the local technical group enabling local on-site system ongoing maintenance and further customization and development.

10. IISRPRC will use a multi-layered application model and centralized enterprise architecture. The system will enable data capture, conversion, loading, exchange and dissemination, and adopt workflows based on business rules and processes. The system will enable data management, security and administration. IISRPRC will introduce an enterprise-wide 3-tier system:

- **1st tier** – Database Management System (DBMS), databases and files storage
- **2nd tier** – Application servers as middleware between clients and DBMS
- **3rd tier** – Registry and cadastre client applications and modules.

11. End users will access the system through a common interface for registry and cadastre processes implementing a one-stop-shop concept. IISRPRC main applications and functionalities will include the following:

a. Workflow and business rule management
b. Document and digital archives management
c. Registry and cadastre operations
d. Back file data entry and data loading
e. Reporting and data analysis
f. User management and system administration
g. Internal and external security management
h. Public access portal with electronic services
i. Data interoperability and access management with National GIS, eGovernment portals, ministries, public institutions and others.

12. The phased development of IISRPRC will result in incremental system releases introduced to pilot locations for a thorough operational testing of the implemented work processes and functionalities. New system releases will gradually extend IISRPRC's functionality and each release will have to be tested by a technical working group of GKZGDK and subsequently piloted in selected offices to ensure compliance with the operational procedures and required service standards.

13. When the IISRPRC has received an operational acceptance and it has been deployed into the datacenter, it will be rolled-out country wide to one-stop shops in Rayons/Cities and production offices in Oblasts. The roll-out will be synchronized with data migration and population of the unified central database of IISRPRC, system training, office modernization and establishment of a last mile high-bandwidth communication lines to the Oblast offices.

14. IISRPRC development process from the very beginning will be organized in a shared development environment accessible apart from the developer to the technical working group of GKZGDK (or the ICT Competence Center team). The group/team will be engaged into continuous knowledge transfer from the developer to the ICT Competence Center team. Source code of each release will be made available for shared review and followed with a regular on-site development team workshop. The ICT Competence Center software and system specialists will

be dedicated to operate over the course of the project as the system vendor's local counterparts with the purpose to take full ownership over developed system and enable:

a. Continuous testing of the system and its regular new releases for immediate verification,
b. Control and authorization of the change requests, preparation of technical requirements for the software extension and customization according to the evolving requirements,
c. Management of local subcontractors ensuring the integrity and quality of their deliverables,
d. Building and operationalization of new e-services available for the public, government and third parties and,
e. Provision of first line help-desk system support and maintenance.

15. Additional functionalities may be developed to IISRPRC based on the evolving needs and within budget constraints. System maintenance and support will be provided from GKZGDK resources with the ICT Competence Center assuming the system ownership and interaction with developers.

A.3 Data Center

16. This sub-component will create a modern fit–for-purpose data infrastructure for IISRPRC adequate to the needs of the fully operational digital IISRPRC. The sub-component will support the establishment of a Main Data Center in Tashkent, or alternatively join an existing Data Center as feasible and secure. All Oblast production offices will be linked to the Data Center via secure, reliable and high-bandwidth fibre optic communication lines that exist already and will become available during the course of the project. The sub-component will finance installation of engineering systems for uninterrupted and alternative power supplies, climate control, fire protection, and access security for the Data Center. A feasible solution for Disaster Recovery will be established by GKZGDK including option of maintaining such recovery capacity at the planned eGovernment Data Center. This sub-component will also finance the renovation of the premises of the Data Center according to appropriate standards and modern engineering systems.

Component B – Real Property Registration and Cadastre Data Development (US$4.92 million)

17. The objective of this component is to digitize current manual property registration and cadastre records (including both attribute and geospatial data) for IISRPRC. This will be done by: (i) mass digitizing selectively all essential registration and cadastre documents, prioritizing current versus archive records; (ii) compiling uniform countrywide digital datasets for a basemap, and property right units to a cadastre index map, as well as soil type maps (referred to as land-use cadastre); and (iii) harmonizing these datasets and populating the IISRPRC's unified central database. Most of the current and archive property registration and cadastre records are paper-based and kept at rayon and city offices of GKZGDK. As the data also contain classified information (for example, due to privacy and military reasons), the mass digitization of real property registration and cadastre records and digital data processing will be done in-house by mobile and stationary teams from GKZGDK's Oblast offices. Also, private sector scanning

capacity is considered weak or non-existent. The component will support building up the in-house GKZGDK capacity to plan, manage, monitor, implement, and assure the quality of the data digitization. It will also support the modernization of Oblast data integration and processing center offices. Also, the sub-component will provide the needed mass digitizing technology, including the design of a transitional data model, work processes and tools, quality control, transitional storage, and digital record updating prior to IISRPRC population and roll-out.

B.1 Digitizing Data for Real Property Registration and Cadastre

18. The objective of this sub-component is to provide in raw digital form the requisite real property registration and cadastre information for IISRPRC operationalization. The sub-component will provide up-to-date geospatial data for the basemap to be used as the background reference in compiling the new datasets for IISRPRC. The sub-component will support in-house mass digitation of selected essential data from the property registration and cadastre documentation mainly by: keying-in handwritten records; scanning textual and graphical records and keying-in metadata in parallel; and extracting and indexing records from electronic records. Current records will be captured as a priority rather than archive records, which will be captured only subject to feasibility within GKZGDK's budget. The data captured in this sub-component will be stored for further processing in sub-component B2.

B.1.1 High-Resolution Satellite Imagery and Data Development Campaign Technology

19. Relevant to this sub-component, the NGIS program will acquire for GKZGDK high resolution satellite imagery of the territory of Uzbekistan (ortho-rectified, geo-referenced, and mosaicked) with the ground sample distance (GSD) of 2.5 m in low priority areas and 0.6 m covering partially economically important high priority areas. This resolution of this satellite imagery will mostly be too low for use as background reference material for the cadastral mapping of individual land parcels and building footprints. Therefore, this sub-component will complement the NGIS investment by procuring pre-processed (ortho-rectified, geo-referenced, mosaicked) high resolution digital satellite imagery (40-60 cm GSD) aiming to complete the economically viable and lived-in rural areas of Uzbekistan (estimated at 120 000 sq.km). GKZGDK staff will provide quality control and acceptance activities, as well as prepare and provide the contractor with relevant data for ortho-rectification and geo-referencing the imagery (e.g., ground control, digital terrain model, etc.). In urban areas, the project will make use of aerial ortho-photography (20 cm GSD) produced in-house by GKZGDK.

20. The end result will be a seamless basemap of ortho-rectified imagery, which will be used in cadastral index mapping by the project, as well as for the quality control of all graphical cadastre data operations. In addition, the map will become the core geospatial base for future electronic services and can be used by GKZGDK for updating topographic maps. The basemap will also be made available to other government agencies and serve land administration, land management, land-use monitoring, and regulated spatial planning purposes, as well as countless other purposes. The basemap will be made accessible to the public through the eGovernment or a specific Geospatial data portal.

B.1.2 Mass Data Capture of Essential Real Property Registration and Cadastre Records

21. The current real property registers and the archive registration and cadastre files (estimated at around 5.8 million files/cases) keep information on about 10.4 million real property units (consisting of approximately 1.2 million apartments in multiple unit residential blocks; 4.0 million individual houses with land plots; 0.3 million non-residential units, of which 0.2 million are with land plots; 4.9 million farms with land plots; and a small number of government units). The legal, technical and fiscal records targeted – both current and archive – are kept at every local rayon and city office of GKZGDK and include: (a) multiple manual registration and cadastre books in the registry sections – land, residential building, non-residential building, and mortgage; manual registry, cadastre and archive indices and journals; (b) paper-based cadastre and registration files in the archive sections – containing approximately between a dozen and a hundred pages of documents per file / case (some of which are in a fragile state), including: legal tenure documents (certificates, decisions); cadastre plans and sketches of individual land parcels, building footprints; other land survey, inventory and valuation records, urban and rural regulated spatial planning records; as well as (c) relevant electronic records in a variety of different file formats, which were used to produce some of the paper documentation, or back up existing paper-based records.

22. The sub-component will finance mass in-house data capture and storage, data verification and quality control of: (a) handwritten current registration and cadastre records – by keying-in the requisite entries; (b) the most informative and legally valid textual and graphic record items from the archive – by scanning with simultaneous recording of metadata; and (c) selected electronic records from unsystematic electronic files – by extraction, generation of metadata, and indexing. The digitizing strategy and technology development will revise the current estimates, and develop a production and quality control technology, organization and management arrangements, instructions and manuals. The sub-component will employ the labor of in-house teams within GKZGDK enterprises at rayon, city and oblast levels that are appropriately trained in scanning, indexing and data entry. The digitized data will be loaded and operationally updated into the transitional storage system and made available for online searching and viewing.

23. GKZGDK has little relevant experience with such a mass data development campaign or its planning, management, implementation monitoring, and quality assurance aspects. Therefore, the GKZGDK in-house knowledge, skills and project management capacity will be built up through a study tour in countries where similar campaigns have been successfully completed, and project management training of central and oblast staff who will be involved in managing the mass data development campaign.

24. The mass data capturing campaign will precede and run in parallel with the development of IISRPRC, digitizing the essential registration and cadastre documents systematically in all 200 local rayon and city offices, working office by office under a strict schedule. After the completion of digitizing works in any office, transitional storage and updating procedures must be in place prior to IISRPRC population and roll out, in order to capture the additional data produced in the course of ongoing sporadic service delivery in that office. Technical assistance under MRPRC will support GKZGDK to develop the mass digitizing technology, including a transitional data model, work processes and tools, and quality control system and procedures

early on during the project, as well as to train a critical mass of implementers and trainers for the development of the in-house data capturing skills required.

B.1.2.1 Extraction of Registration and Cadastre Documents from Electronic Records

25. Many current and archive textual and graphic records relate to a corresponding electronic record from which the official paper documents were printed, or are used as a backup. This refers to many legal, technical and fiscal documents in the registration and cadastre files, cadastre plans, sketches, land surveys, building and construction design documents, etc., generated with a variety of word-processing, spreadsheet, or computer graphics software in many electronic formats. Such unsystematic electronic records are stored in individual workstations at the rayon and city offices. An inventory to assess their availability, volumes and contents will inform a detailed strategy and plan for data entry and scanning in order to avoid duplication of efforts. The project will employ and train in-house staff teams in the oblast, rayon, and city offices, who will systematically search, tidy-up the electronic files, and extract just the relevant electronic records, generating metadata, indexing, and storing them (in a variety of formats) in the transitional period for further data processing and integration.

B.1.2.2 Entry of Handwritten Registration and Cadastre Records

26. GKZGDK estimates a need to capture about 50 million handwritten records, which have not been backed up in electronic records (approximately 10.5 million multiple-field entries from registration books, and around 38.5 million from cadastre files/cases). The project will equip and train staff teams in the oblast and rayon and city offices, who will carry out the mass data entry (by keying-in the requisite entries, data verification and quality control) and store the data (in uniform formats as per the transitional data model) in the transitional period for further updating data processing and integration to IISRPRC.

B.1.2.3 Scanning of Registration and Cadastre Documents

27. GKZGDK estimates a need to scan 75.5 million pages of text and 10.1 million sheets of graphics to capture the most informative and legally valid textual and graphic real property registration and cadastre records from the archive. These paper-based materials are often kept in bound files. They will be taken out from the archives, unbound and marked, and relevant pages selectively scanned with simultaneous recording of metadata. Finally the files need to be re-bound and returned to the archives, while the digital data will be stored (in appropriate formats applying the transitional data model and methodology) for further updating, processing, and integration. The component will equip and train mobile scanning teams for Tashkent, Karakalpakstan, and each of the 12 oblasts, selecting members from the GKZGDK staff. The mobile scanning team work will cover all 200 rayon/city offices of GKZGDK, supported by local staff for data retrieval, logistics and quality control. After the scanning campaign, all meanwhile accumulated relevant textual, and graphic, manual or electronic, records will be added to the digitized data records or scanned with simultaneous recording of metadata.

B.2 Digital Data Integration and Population of IISRPRC Database

28. The objective of this sub-component is to: (i) compile uniform countrywide attribute and spatial datasets/layers of: (a) the basemap, and (b) property and land use rights delineation with assigned attributes in the cadastre index maps, and (ii) migrate these datasets to IISRPRC assuring adequate quality. Fortunately, GKZGDK has already vectorized 1:200,000 (non-classified) topographic maps. The 1:25,000 rural land-use maps (classified due to coordinate system secrecy), 1:10,000 agricultural maps of rural areas, and 1:2,000 urban maps will all be vectorized by the end of 2016 under the NGIS program supported by the Korean Eximbank. Finally, the project and NGIS program will jointly provide the ortho-rectified, geo-referenced and mosaicked satellite imagery (see B1.1.). This sub-component will bring together the data produced by Component B and by the NGIS program, and the solutions developed under Component A (IISRPRC) and Component C (new open coordinate reference system). The sub-component will support an in-house campaign for integration and conversion of digital textual and graphic data to IISRPRC in operational alpha-numeric, raster and vector formats; vectorized cadastre index maps transforming geo-spatial data in the new open coordinate system; data layers and attribute information (compiled by overlaying, cleaning, matching, aligning and harmonizing geo-spatial data, and converting, verifying and re-indexing requisite attribute information; and applying rigorous quality control of data processing and integration). Finally, the sub-component will support the migration, harmonization and population of the uniform IISRPRC database for operationalization within IISRPRC pilots or roll-out. The work will be done by in-house teams within GKZGDK enterprises at the Oblast and Central levels, accommodated in modernized premises and appropriately trained and equipped with hardware and software for the data integration processes. The local specialists with their invaluable local knowledge will have a crucial role in data integration and quality improvement, as well as in quality control. With the support of technical assistance under the project, a vigorous quality control process and standards will be developed for GKZDKZ specialists, encouraging the adoption of internationally recognized (ISO) standards in the Uzbek practice.

B.2.1 Modernization of Oblast data integration and processing center offices

29. The sub-component will improve working conditions in all GKZGDK's Oblast data integration and processing (production) offices where data integration and updating will take place in the transitional period prior to IISRPRC population and roll out. After the roll out, the renovated offices will become IISRPRC's back office production centers. The oblast offices will be renovated and furnished according to international design and civil works standards.

B.2.2 Seamless Raster Basemap

30. The up-to-date basemap will be compiled by in-house staff teams from GKZGDK and its enterprises, who will be adequately trained and equipped with technology and customized tools. One team will integrate the new ortho-rectified satellite imagery (see B1.1.) and the GKZGDK's aerial ortho-photography of urban areas (partial coverage of the 119 towns / cities i.e., approximately 6,000 sq.km) into a countrywide seamless up-to-date basemap, while another central team will provide the quality control. The total territory of Uzbekistan (447,400 sq.km) will be covered by the basemap. This ortho-rectified, geo-referenced raster imagery will be

converted to the new open coordinate system, with additional image mosaicking, if needed. In compliance with IISRPRC and geospatial data framework data models, some lettering (of toponyms, hydrography, settlements, streets, etc.), geodetic control, other orientation elements (e.g., spot heights, some administrative boundaries, etc.), will be picked from the maps vectorized under NGIS project and added to the imagery to achieve a multi-purpose uniform and national basemap dataset. The basemap will serve as background for all mapping, geo-referencing, verification and indexing of registered real property units, cadastre land-use mapping, updating the national topographic map series, and further as the fundamental countrywide geospatial dataset for the e-Government and geospatial data framework initiatives.

B.2.3 Property and Land Use Rights and Cadastre Index Map

31. The compilation of the dataset of property and land use rights, cadastre index map and cadastre attribute data will be carried out by in-house GKZGDK staff teams under the integrated quality control of one central team. All attribute and geospatial data will be organized (master indexed) around legally registered land parcels/building footprints or recorded land plots in the cadastre. Cadastre units will be uniquely identified for IISRPRC (even though the current legislation does not require issuance of unique identifiers for recorded land use plots) and visualized on an index map using a basemap as background reference. The georeferenced datasets will also make coordinates based property rights registration possible, which is an international long term trend. In practice, a digital cadastre index map will be compiled – as an overlay on the basemap dataset, – and then all attribute information on the registered property and land use rights, legal burdens, rights holders, real property features, cadastre attributes, etc. will be compiled (in compliance with IISRPRC data model) and linked via the unique cadastre identifiers to the cadastre units on the map. The number of registered land parcels and building footprints (closed polygons to be mapped) in the cadastre is estimated at approximately 4.5 million buildings/constructions residing on up to 10 million land plots, of which 2.5 million are registered land parcels.

32. The *cadastre index map* to be compiled should (in compliance with the IISRPRC data model) contain: i) the political and administrative boundaries mesh with unique identifiers assigned to all closed polygons (State, Oblast, Rayon/City, Cadastral subdivisions – Zone, Masiv, Quarter) – to be extracted from the source maps vectorized under NGIS; ii) all registered land parcels and footprints of registered buildings/constructions and the recorded cadastre land-use plots with their assigned unique cadastre identifiers. These will be mapped by: (i) converting, geo-referencing, and transforming electronic backup records from electronic files; (ii) vectorizing (on-screen) the scanned graphic plans, sketches, or land surveys of individual parcels, building/construction footprints, or their interpreted raster basemap images; (iii) geo-referencing the vectorized closed polygons of parcels and footprints either by coordinates, or by overlaying them on the basemap; and (iv) converting, transforming, and overlaying of cadastre land-use plot boundaries from the rural and urban basemaps. The compilation process will be completed with verifying, matching, aligning and adjusting them (including, – as a last recourse – field verification and/or fit-for-purpose land surveys, if needed), using any available cadastre unit boundaries from source maps.

33. For IISRPRC operationalization, the correct index map topology (neighborhood, adjacency, edge matching, coincidence of parcels / building footprints and land use plots) and parcel / footprint and plot identifiers are crucial, while geometric accuracy (dimensions, shape) is desirable but lower priority, since it can be incrementally improved later in the course of routine IISRPRC maintenance. The cadastre index map compilation should be carried out with IISRPRC technology and customized tools developed initially under Component B and integrated eventually to IISRPRC under Component A.

34. The *attribute information* to be compiled should (in compliance with IISRPRC data model) contain all requisite attributes of the registered property and land use rights, rights holders, legal burdens, and land / property unit features, as well as the minimum requisite land-use plot attributes, picked from the source rural and urban maps and cadastre files. The source for this compilation will be the digital data output of sub-component B1.2, which will be converted, verified and indexed by the unique cadastre identifiers – to be ready for migration to the relevant attribute fields in the IISRPRC data model, using back file data loading applications and functionalities developed under Component A.

B.2.4 Harmonization and Migration to RPRSC Database

35. The final upload of the compiled countrywide digital datasets to IISRPRC property registry and cadastre databases with data harmonization will be carried out by in-house GKZGDK staff teams from the production enterprises, while integrated quality control will be exerted by another central staff team from GKZGDK. This process will use IISRPRC technology and customized tools developed under Component A and will ensure coherent quality of the countrywide spatial and attribute data.

Component C – Use of Real Property Registry and Cadastre Data (US$ 1.33 million)

36. This component will support activities aimed at enhancing public on-line use of IISRPRC data, which form the core dataset of the geospatial data framework and the geospatial base for a variety of public sector planning, monitoring, eGovernance, and fiscal purposes, as well as to property markets, and start-ups and corporations developing value added businesses. The component will support enhanced interoperability and efficient data sharing and exchange with other governmental stakeholders, such us the State Tax Committee, the Census Registry, line Ministries and Regional and District Governments, City administrations, etc. Specifically, the component will support: (i) the development of a geospatial data framework strategy and technical guidelines for its implementation; (ii) the development of a technological framework for implementation; and (iii) the establishment of a GeoPortal that will provide the "one-stop-shop" for all geospatial information and related online services. The component will further support the creation of a new open coordinate reference system (CRS) in the country, and the provision of a control center to the country's Continuously Operating Reference Stations (CORS) network. Finally, the component will support piloting a prototype mass valuation application in support of real property taxation, compensation definition, state land/asset management and state asset management using IISRPRC data.

C.1 Spatial Data Integration to eGovernment Structure

37. The objective of this sub-component will be to complement the NGIS project by developing a modern framework and technological platform, compliant with the eGovernment Master Plan including services for citizens (G2C), services for government (G2G) and services for business (G2B). The ultimate goal of sub-component is to increase the public access to electronic geospatial services in an efficient and cost effective manner. Integration strategy, roadmaps, implementing rules, metadata, data specifications, network services, and geospatial data services will be defined to facilitate interaction and efficient and flexible use of IISRPRC and geospatial data. The sub-component will make IISRPRC data as the base dataset of eGovernment and make it accessible online subject to necessary restrictions of privacy and defense. The sub-component will also support geospatial data framework specifications, institutional agreements and guidelines, as well as a Geoportal implementation.

C1.1 Strategy, Legislation, Institutional Agreements and Guidelines

38. The objective of this sub-component is to ensure maximum thematic coverage of geospatial data arranging data exchange directly among stakeholders, including data providers and users. The sub-component will support a strategy preparation that will define the infrastructure, data formats, standards and initial services that geospatial data framework will provide to authorities, business entities, organizations and citizens. The strategy will also address institutional relationships, agreements and business practices that encourage the maintenance and use of geospatial data, and define procedures and guidelines for data integration, exchange, sharing, and use of geospatial data. Further, the project will support the legislation, including institutional agreements and production of guidelines for the implementation of the strategy and facilitate data exchange agreements between GKZDKZ and (mainly public sector) geospatial data stakeholders. Legal framework and regulations for overcoming the current restrictive geospatial secrecy rules will be developed.

C1.2 Specifications of data, network services, data services, and sharing

39. The objective of this sub-component will be to establish a technological framework for geospatial data framework implementation facilitating interoperability, efficient data sharing and exchange. The sub-component will define specifications of (i) roadmaps, (ii) implementing rules, (iii) metadata, (iv) data specifications, (iii) network services, (v) geospatial data services and (vi) data and service sharing. Data specifications development will encompass all geospatial data sets produced, maintained and distributed by stakeholders including cadastral data.

C1.3 Geoportal

40. The objective of this sub-component will be to integrate geospatial data into the eGovernment framework. As a way of implementing the strategy, the project will support the establishment of a Geoportal that will provide the "one-stop-shop" and integrate geospatial data, including land registry and cadastre, into eGovernment, including G2C, G2G and G2B services. Geoportal will host services related to the IISRPRC and geospatial data allowing compiling, downloading and sharing the data from an incrementally increasing number of geospatial data stakeholders linked to Geoportal. The project will support the technical solution based on Open Source Software with appropriate ICT infrastructure of GKZGDK's Data Center.

C.2 Establishment of New Open Coordinate Reference System

41. The objective of this sub-component is to establish a new open geodetic reference framework (compliant with ITRF[3] and WGS84[4] for GNSS[5] applications), standard cartographic projection, and plane geodetic coordinate reference system with appropriate zoning for Uzbekistan, and its implementation as the open coordinate reference system applied to all real property registry, cadastre, topographic mapping and all other geospatial data sets, including their exchanging and sharing. This is a crucial prerequisite for an efficient geospatial infrastructure that relies on interoperability and compatibility of geospatial datasets for countrywide access and dissemination for making impact. The sub-component will – in coordination with the NGIS project – support comprehensive geodetic reference network adjustments in establishing the new ground reference stations network, including the already established 14 zero-order, and 144 first-order passive ground reference stations, and the planned approximately 100 Continuously Operating Reference Stations (CORS) across the country. The new network will link to the ITRF system via the four Base Order international CORS points already established in Uzbekistan. In practical terms, the new geodetic reference framework and open coordinate reference system will replace the use of CIS coordinate system SK-42, which is secret due to a binding agreement between CIS countries. The establishment of the new coordinate system is a legal covenant to the credit.

C.2.1 Control Center for CORS

42. The objective of this sub-component will be to complement the NGIS project in providing an infrastructure for accurate and economically feasible GNSS surveying (directly in the new plane geodetic coordinate system) across the country. The NGIS project will support the completion of the national coverage of the Uzbek CORS network by acquiring GNSS receivers and CORS networking software for the establishment of a Control Center for CORS networking and dissemination of differential GNSS corrections. This component will support the establishment, equipping and knowledge transfer of the CORS network Control Center. CORS will allow the application of a Real Time Kinematic (RTK) GNSS technology to field surveys across the country with up to centimeter-level accuracy. It will reduce the burden need of GKZGDK to maintain a densified ground reference stations infrastructure in the local levels, and facilitate incremental quality improvement of the geometric accuracy of cadastre index and land-use maps, as well as the calculation of local transformation parameters between SK-42 and the new plane geodetic coordinate system. While CORS will make GNSS surveys more economic, the main benefit will be gained from the compatibility of all surveyed and converted spatial data in the country. The project will ensure the accessibility of CORS and GNSS differential corrections countrywide. A business plan for CORS will be developed either to be financed by the government as an input to the geospatial data framework or by fees collected by the users, which is also a common model.

[3] International Terrestrial Reference Framework
[4] World Geodetic System 1984
[5] Global Navigation Satellite System

C.4 Computer Assisted Mass Valuation Prototype

43. The objective of this sub-component is to develop an IISRPRC-based and GKZGDK administered prototype tool for mass valuation. The secondary aim will be to promote awareness on the importance of property value data in property taxation, state property management, state asset management and state audits, and for enhancing property and credit markets. The sub-component will finance a property valuation infrastructure and needs analysis, and develop a property price index and mass valuation application prototype making use of the IISRPRC data. The work will cover the most common property types (residential, commercial, industrial) and adhere to international valuations standards. The mass valuation system should provide approximate market values suitable for multiple uses such as recurrent property taxation, check and balances for property transfer tax monitoring, expropriation compensation, state land management, state asset valuation, state audits and more. GKZGDK's technical inventory approach does not produce accurate market values in real property market conditions, and it is foreseen that the technical inventory as the core business of GKZGDK will eventually need to be replaced by real property registration and cadastre maintenance activity financed by registration fees, and with a new mass valuation function capable of producing approximate market values. The prototyped mass valuation system will allow GKZGDK to test mass valuation as a potential future business line and demonstrate its capabilities for internal and external beneficiaries.

Component D – Institutional Development and Project Management (US$2.91 million)

44. The objective of this component is to ensure effective management of the project and sustainability of its results. The sub-component will improve customer services through development of service standards and codes of conduct, develop and provide information and resources to customers through various media, and introduce anti-corruption, good governance and transparency and beneficiary feedback initiatives (customer hotline, feedback, grievance redress, etc.). A web based operations manual will also be produced. In parallel, this component will focus on institutional development of the real property registry and cadastre organization, addressing challenges of financing, and staff policies and retention. The component will develop new business plans aiming at full cost recovery and/or self-financing, and it will introduce good governance practices in accounting, statistics collection and analysis, and annual reporting. Further, this component will support the improvement of the policy and regulatory environment of real property registration and real property. Particular focus will be placed on enabling digital real property transaction and registration in Uzbekistan and reducing the complexity of property transfers. Also, agriculture modernization and farmland tenure reforms, and land and property market functionality improvements will be supported through studies on key issues and support for legislative drafting. In addition, the component will support sectorial (law, surveying, cadastre, valuation, property taxation, land management, GIS/SDI, etc.) curriculum development and education courses, which will be delivered both in person and remotely to GKZGDK staff and to other public sector and private sector personnel in real property registration, cadastre services and real property market, as well as inclusive service orientation. Also, the component will facilitate international and local technical assistance to enhance various stages of project implementation and transfer best practice knowledge. Regular customer satisfaction surveys will be used to monitor the impact of these activities and inform project implementation. Finally, this component will support a Project Implementation Unit

(PIU) under GKZGDK responsible for project management and the project's fiduciary functions and monitoring and evaluation. This component will comprise five sub-components to complement and support activities under components A, B and C.

D.1 Customer Services

45. The objective of this sub-component will be to improve GKZGDK's client orientation and servicing. The investments will focus on improving services to the public other than those derived through activities under the other components and will relate to efficient delivery of services, good governance and openness. An on-line operations manual for registration and cadastre staff will be prepared to replace the existing collection of laws and regulations in paper form. It will collect and explain all relevant materials and will be routinely updated as changes occur. Key parts of the manual will be published online so that members of the public understand the requirements for registration. Other publications aimed at the public (both on-line and hard copy form) will address key issues relating to registration and cadastre. A publicity and information campaign will raise the public's awareness of property related matters and services, with a special focus on women and youth. Online interactive services, including a forum for dissemination of information, will also be established. Further, a set of service standards will be published, and a code of conducts and ethics will be developed for staff to improve their responsiveness to customers' needs and raise professional standards. Finally, anti-corruption, good governance initiatives (such as expanding the customer hotline and mechanisms for feedback and grievance redress) drawing on international experience will be introduced as part of improving customer services and institutional development.

D.2 Institutional Development and Sustainability

46. The objective of this sub-component is to improve institutions and capacities so that the project achievements could be sustained. The sub-component will promote the institutional development of GKZGDK and the oblast and rayon offices and develop means to ensure its financial sustainability. Early in the project, an institutional and financial assessment, with a special focus on financial and human resources needs into the future, will develop a program for moving to a sustainable self-financing model that utilizes sources of income other than technical inventory. Building on the results and decisions, strategic planning and business planning activities and institutional/financial reform will follow. This may include consolidation of back office activities of some of the 200 rayon offices. The sub-component will also develop and implement good governance initiatives in the areas of statistical reporting and analysis, accounting and annual reporting. Regular meetings with key user groups (professionals) and user representatives will be established to provide a means of interacting with users, testing proposals and receiving feedback.

D.3 Policy and Regulatory Framework

47. The objective of this sub-component is to improve the policy and regulatory framework so that the project targets could be met and achievements sustained. The project will support development of the policy and regulatory framework to support more efficient and effective property registration and cadastre operations, improve tenure security and develop an efficient

and informed real property and land market. Also, agriculture modernization and farmland tenure reform and implementation will be supported through analytical and legislative inputs as required in the developing agenda. Policy, technical and legal studies, to be identified in the annual work plans, will analyze current issues and challenges, develop recommendations, present findings and pursue acceptance of recommendations within government. Possible studies could include: digital environment; valuation infrastructure and standards, property taxation, fees and their impact on markets; operation of land markets and improved access to credit; land tenure security; expropriation law and practice; geospatial data and information sharing; national land policy; ownership, financing, control and management of multi residential buildings; social issues relating to real property, including gender, and youth issues. Subsequently, legal drafting support will be provided to prepare draft resolutions, amendments to laws, etc. as required to support decisions and also any legislative changes required to support components A, B and C.

D.4 Training and Education

48. The objective of this sub-component is to improve GKZGDK's capacities to implement the new real property and cadastre system in Uzbekistan. The project will support sectorial (law, surveying, cadastre, valuation, land management, archive management, GIS/SDI, data entry, scanning, integration and harmonization, etc.) curriculum development and education courses, which will be delivered both in person and remotely to GKZGDK staff and to other public sector and private sector personnel in real property registration, cadastre services and real property market. Courses on human resources, ethics, customer service, management will also be developed and presented. Early in the project, a thorough training needs assessment will be conducted and a detailed long-term training plan prepared, and specific training plans will be prepared annually. The assessment will be updated in Year 5. A training portal will be designed and established. The sub-component will also fund study tours and conference attendance. Gender disaggregated statistics on participants and satisfaction levels will be kept throughout.

D.5 Project Management, Reporting and Technical Assistance

49. The objective of this sub-component will be to ensure efficient implementation of the project. A high-level project management mechanism (Steering Committee) will be established and supported under this sub-component. The sub-component will support a Project Implementation Unit (PIU) under GKZGDK responsible for project activities, project management and the project's fiduciary functions and monitoring and evaluation. The PIU will be located in the National Center for Geodesy and Cartography and will include (i) a Project Director; (ii) a Financial Management (FM) specialist; (iii) a Procurement specialist; (iv) a Monitoring & Evaluation specialist; (v) an Information and Communication Technologies (ICT) specialist; (vi) a Registry/Cadastre specialist; (vii) GIS specialist; (viii) Civil Engineer/Architect; (ix) Lawyer; and (x) secretarial and translation staff. GKZGDK will appoint a coordinator in each oblast to oversee project activities and outputs. A monitoring and evaluation system will be designed and implemented, and three customer surveys will be conducted throughout the life of the project.

Annex 3: Implementation Arrangements

UZBEKISTAN: Modernization of Real Property Registration and Cadastre Project

Project Institutional and Implementation Arrangements

1. The State Committee on Land Resources, Geodesy, Cartography and State Cadastre (Goskomzemgeodezcadastre, GKZGDK) is a public institution under to the Cabinet of Ministers of Uzbekistan responsible for ensuring development and implementation of state policy on effective use of land resources, regulating land issues, organizing land planning and monitoring, and maintaining and increasing land fertility. From the institutional standpoint, all land administration responsibilities are under GKZGDK, however, there are four independent registries operating under the Committee: land, residential buildings, non-residential buildings and mortgage registry. GKZGDK has 14 Oblast and 214 Rayon self-financed offices (or services) which provide cadastre, registration and land use monitoring services. GKZGDK Rayon services have responsibility for land management and land administration and are subordinated to two different Institutions – GKZGDK and local government. The head of each Rayon service is appointed by the regional land cadastre administration with the consent of the Rayon Khokim (the head of the rayon municipality).

2. The recent President's Decree No UP-4725 of 15 May 2015 is aimed at improving the business environment, including through the better protection of private property and the delivery of services by government. The Decree provides for the establishment on one-stop-shop under the Ministry of Justice (MOJ) that will serve as single window for service provision to the public at the Rayon level, including for GKZGDK's front office functions. Although implementation details are still being defined, the project design was modified to reflect this change with a reduced role of GKSGDK Rayon office single front desks, and eventually a full transfer of customer service functions to the one-stop-shops of the eGovernance structure (expected to be in place by January 1, 2016).

Project administration mechanisms

3. GKZGDK, the main agency responsible for real property registration in the country, will be the project implementing agency. GKZGDK has good technical capacity at the central level and it is the only state institution with the skills to support real property registration. However, its staff needs training and sensitization to the modern era of registration of rights, e-government and customer orientation, which will be addressed in the project.

4. Instead of establishing a project specific Steering Committee the Recipient will provide policy guidance and overall project oversight to the Project through the Inter-ministerial Coordination Council established by the Resolution of the Cabinet of Ministers No. 229 dated August 12, 2009. In addition, GKZGDK will develop a mechanism for stakeholder coordination and consultation non-exclusively including the Ministry of Information Technology Development (MOITD), the Ministry of Economy (MOE), the Ministry of Finance (MOF) and the Taxation Committee, as well as representatives from related donor projects, and eventually also other key stakeholders from the public and private sector (professional users of the property

registration and cadastre system, property holders' representatives, etc.). GKZGDK will be responsible for overall project implementation and coordination, and will establish a Project Implementation Unit (PIU) responsible for project management and project's fiduciary functions and monitoring and evaluation. The PIU will be located in the National Center for Geodesy and Cartography. The PIU will include: (i) a Project Director; (ii) a Financial Management (FM) specialist; (iii) a Procurement specialist; (iv) a Monitoring & Evaluation specialist; (v) an Information and Communication Technologies (ICT) specialist; (vi) a Registry/Cadastre specialist; (vii) a GIS specialist; (viii) a Civil Engineer/Architect; (ix) a Lawyer; and (x) secretarial and translation staff. Given that GKZGDK has no prior experience in implementing World Bank projects, fiduciary staff (procurement specialist and financial management specialist) familiar with the Bank procedures will need to be recruited externally. The other PIU positions will be filled by either consultants or Government personnel using funds allocated to the project.

Financial Management, Disbursements and Procurement

Financial Management

5. An FM assessment of GKZGDK was carried out in August 2015 and concluded that the FM arrangements will meet the minimum World Bank requirements once the actions listed below are completed. The current fiduciary risk is assessed as Substantial given that GKZGDK has no experience with World Bank-financed projects and considering that the capacity is still being built. The following additional actions have been agreed with GKZGDK:

Summary of Actions

	Actions for capacity building	**Responsible party**	**Completion date**
1	Establish the PIU within GKZGDK and hire a qualified FM Consultant	GKZGDK	By effectiveness (effectiveness condition)
2	Develop the POM including a dedicated FM chapter satisfactory to the World Bank. The FM Chapter of the POM should describe the MRPRP related internal control, budgeting, external auditing, financial reporting and accounting policies and procedures.	PIU within GKZGDK	By effectiveness (effectiveness condition)
3	Acquire and install a fully functional automated accounting information system for keeping project records.	GKZGDK and PIU	By effectiveness (effectiveness condition)

6. **Staffing**: Currently GKZGDK does not have sufficient FM capacity to implement the proposed project. It is expected that an experienced FM consultant will be hired under the PIU who will be responsible for FM arrangements under the project. It is expected that the FM

consultant will need additional training on World Bank policies and procedures, as well as additional implementation support after project effectiveness.

7. **Budgeting and planning**: Under the project, an annual work program and budget will be prepared by the PIU, reviewed and approved by the PIU Director, and submitted for Bank's no objection and for approval by the Steering Committee. The project budgets will be prepared based on the procurement plan, budgeted operating expenditures and disbursement estimates. All changes to the procurement plan will require review by the PIU Director and approval of the World Bank and Steering Committee. The budget will form the basis for allocating funds to project activities and will be prepared according to the IFR format (disbursement categories, components and activities, account codes, and broken down by quarters).

8. **Accounting**: The PIU will be responsible for maintenance of accounting records for components A, B, C and D of the project. Project accounting records will be maintained in accordance with the Cash Basis International Public Sector Accounting Standard (IPSAS). At the same time, GKZGDK will continue using accrual basis of accounting in compliance with the National Accounting Standards of Uzbekistan. The PIU will install and modify the automated accounting and reporting system, which will allow fully automated accounting and reporting, including automatic generation of SOEs, IFRs and other reports required by national legislation. The system will have built-in controls to ensure data security, integrity and reliability.

9. **Internal Controls**: The PIU will establish internal controls system capable of providing reliable and adequate controls over FM and disbursement processes and procedures. These include controls for safeguard of assets, segregation of duties, authorization of transactions, review and approval of invoices, contract management and others. The internal control system to be used by the PIU as well as additional reporting and auditing requirements will be specified in detail in the POM to be prepared prior to project effectiveness.

10. **Co-financing**: Co-financing will be in the form of a budget allocation. In addition, the PIU will be exempt from paying VAT, Import VAT, Excise tax, Custom duties and Road fund charges on vehicles on goods, works, non-consulting services, consultants' services and incremental operating costs which are consumed under the project.

11. **Financial Reporting**: The PIU will prepare and submit to the Bank project IFRs every calendar quarter, starting with the quarter in which the first disbursements occur. The format of IFRs were agreed with GKZGDK and will include (i) Project Sources and Uses of Funds, (ii) Uses of Funds by Project Activities, (iii) Project Balance Sheet, (iv) DA Statement and (v) a Statement of Expenditure Withdrawal Schedule. IFRs will be automatically generated by the project accounting software. These financial reports will be submitted to the Bank within 45 days of the end of each calendar quarter.

12. **External Audits**: The PIU will be responsible for the annual audit of Project Financial Statements (PFS). The PFS audit will be conducted (i) by independent private auditors acceptable to the Bank, hired on the basis of TORs acceptable to the Bank, and (ii) according to the ISA issued by the International Auditing and Assurance Standards Board of the International Federation of Accountants. The project audit will include: (i) audit of financial statements: (ii)

review of the internal control mechanisms. No entity audit is required. The following table summarizes the audit requirements for this project.

Audit Report	**Due date**
Audit of PFS include Project Sources and Uses of Funds, Uses of Funds by Project Activities, SOE Withdrawal Schedule, DA Statement, Notes to the Financial Statements, and Reconciliation Statement	Within 6 months of the end of each fiscal year and at the closing of the project.

13. The audited financial statements will be disclosed to the public in a manner acceptable to the Bank. Following the Bank's formal receipt of these statements from the borrower, the Bank will make them available to the public in accordance with the World Bank Policy on Access to Information. Audit of annual PFS will be financed from credit proceeds.

Disbursements

14. **Flow of Funds**: project funds will flow from the World Bank following the current general practice: (i) via a separate Designated Account (DA) held by the implementing agency at a commercial bank acceptable to the World Bank that will be replenished on the basis of traditional World Bank disbursement procedures (advance to the DAs, documentation of the advance based on full documentation and SOEs, direct payments, reimbursements, and special commitments). Details on the ceiling of the DAs will be provided in the Disbursement Letter. Withdrawal applications for the replenishments of the DA will be sent to the World Bank at least on a quarterly basis.

Procurement

15. **General**: Procurement for the proposed project will be carried out in accordance with the World Bank's "Guidelines : Procurement of Goods, Works and non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers" dated January 2011 (Procurement Guidelines); and "Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers" dated January 2011 (Consultant Guidelines) and provisions stipulated in the Financing Agreement. If there is conflict between the Government decrees, rules and regulations and the Bank Procurement and Consultant Guidelines, then Bank Guidelines shall prevail. In addition, the project will also follow "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants dated October 15, 2006 and revised in January 2011". For each contract to be financed by the Bank, the different procurement methods or consultant selection methods, the need for pre-qualification, estimated costs, prior review requirements, and time frame are agreed between the Borrower and the Bank project team in the Procurement Plan. The Procurement Plan will be updated at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity.

16. The items to be procured would include the following:

(i) Procurement of Works: There will be the following works contracts: (i) Reconstruction of the Data Center facility, and (ii) Renovation of the oblast processing centers offices. The SBD for Civil Works will be used.

(ii) Procurement of Goods: Goods procured under the project would include (a) DBMS software; (b) standard software licenses; (c) Equipment for Data Center; (d) Mass digitizing/scanning hardware and software for 14 mobile Oblast teams; (e) GNSS equipment and software; (f) Furniture and Equipment for the PIU through Shopping. The Bank's latest Standard Bidding Documents (SBDs) will be used for procurement of goods following ICB procedure.

(iii) Consulting Services: The major consulting services would include: (a) Real Property Registration and Cadastre System Development Consultancy; (b) System Roll Out training and TA; Institutional Development and Project management TA; and (c) Financial audit. QCBS and LCS procedures shall be applied. Also individual consultancy is envisaged.

17. **Procurement Arrangement and Staffing**: The PIU under the GKZGDK in Tashkent will be responsible for the day-to-day implementation of the project and will include a Procurement Consultant/Specialist with experience in the IFI/Bank-financed operations, to be hired under the project. The PIU will assist GKZGDK in project implementation and shall conduct the procurement under the project. Procurement for the project will start already prior the project effectiveness with the support of the ECAPDEV grant.

18. **Record Keeping:** The procurement specialist in the PIU will be responsible for maintaining the procurement files/records. Separate files should be maintained for each contract (including both hard copy and electronic copy). All the procurement documents (including bids, technical and financial proposals of consulting services) should be kept until the end of the project and then transferred to the Government Archives. The originals of various valuable documents (such as bid security, performance guarantee, advance guarantee) are to be kept in the safe by the PIU's accountant.

19. **Risk Analysis and Mitigation Measures:** The 2003 Country Procurement Assessment (CPA) conducted by the World Bank and ADB identified a number of weaknesses in the public procurement system in Uzbekistan that largely remain: (i) absence of a unified legislative framework; (ii) inefficient and nontransparent procurement practices; (iii) absence of a single institution with oversight or regulatory function for public procurement; (iv) weak capacity for reviewing bidders' complaints; (v) complicated internal review/approval of bid evaluation reports which leads to lack of accountability and delays; (vi) no comprehensive anti-corruption measures; and (vii) low skills/capacity of the staff handling public procurement at various administrative level. Private sector suppliers and contractors remain unsatisfied with the rules governing public procurement and have little confidence in the system's fairness. Though the Government has started extensive reforms of its public procurement system, the recent assessments under the 2012 CIFA and 2013 PEFA studies indicate that there is not much change in the public procurement environment yet. Thus, the procurement environment is considered a high risk.

20. The Bank conducted a procurement capacity assessment of GKZGDK in July 2015. Given that GKZGDK has no prior experience of working with World Bank-financed projects, the PIU will hire a procurement specialist to assist in project implementation and in conducting procurement under the project. The procurement capacity assessment identified the following additional risks: (i) the government decrees, rules and regulations have internal conflict in major provisions, such as price verification, which leads to considerable delays in project procurement and implementation; (ii) there is difficulty in obtaining bank guarantees for bid security and performance security by the local bidders, and non-availability of alternative instruments for such purpose in the country banking system in particular Joint Ventures; (iii) there are a number of bid evaluation committees/stages and the interdepartmental tender committee consists of eleven members and the signing of minutes takes at least 2 months; (iv) bid opening to the start of contract implementation takes minimum of 8 to 12 months and (iv) there is considerable procurement delays registration by MFERIT involving international contractors/consultants. That involves contracts with the international contractors and consultants and imported goods contracts. The risks identified and mitigation measures are summarized in the table below:

Description of risk	*Rating of risk*	*Mitigation measures*	*Residual risk*
The government decrees and rules and regulations have internal conflict in major provisions such as price verification	S	The Bank Procurement and Consultant Guidelines shall be followed.	M
There are number of bid evaluation committees/stages and the interdepartmental tender committee consists of eleven members and the signing minutes take at least 2 months;	H	Matters raised at a Country Portfolio Performance Review Meeting for defining remedy actions.	H
Import contract registration requirements are arduous and may seriously impact procurement and contract implementation	H	The project team will monitor contract award notification and publication of contract award details as per Bank Procurement and Consultant Guidelines. The team will further monitor receipt of signed prior review contracts and take timely action to ensure Bank Guidelines are followed.	S
Staff of implementing agency have limited experience with Bank procedures, guidelines.	S	Hiring of a qualified procurement specialist (PS) by the PIU would decrease this risk. Having short term International procurement consultant at certain period of the project implementation will reduce this risk further.	M

Government officials may intervene in the procurement decisions under the Project	H	The POM shall clearly decide the responsibilities of the project stakeholders in the procurement process. Use and strict adherence to the Bank's procurement Guidelines would decrease this risk. The Bank would follow-up closely that the Bank's procurement procedures are followed strictly. Any complaints shall be handled consistently and followed-up till fully addressed.	M
Average	H		S

H: High; S: Substantial; M: Moderate and L: Low.

21. The POM will reflect the detailed internal approval stages and optimize the approval process and stages. The price verification and reasonableness of recommended contract value will be carried out as part of bid evaluation and the contracts will be awarded and signed as soon as the Bank's no-objection is issued, and signed contract and Performance Security (whenever required) is submitted to the Bank within 6 weeks of Bank's no-objection to the Bid Evaluation Report. The POM will include the complaint registration and handling mechanism so any complaint is treated fairly and openly. Any complaints concerning the procurement or other aspects of the Project implementation have to be registered and dealt within a time frame agreed in the POM.

22. **Procurement Plan**: GKZGDK developed a Procurement Plan covering procurement activities for the entire period of the Project implementation, which provides information on procurement packages, methods and Bank review requirements (see below). This Procurement Plan will be continuously updated as the Project progresses and will be reviewed and approved by the Bank accordingly. The Procurement Plan was published on the Bank's external website and the Committee website after Project negotiations. The POM will elaborate on the appropriate mechanisms for procurement according Bank Guidelines. The General Procurement Notice (GPN) and advertisements of procurement opportunities (SPNs) will be published on the GKZGDK website and Uzbek media. The ICBs and major consultancy services will also be published in the Bank's external website and UN development business. The appraisal stage procurement plan with preliminary cost estimates and dates is included below. The Borrower has the option of not disclosing the cost estimates while disclosing the procurement plan.

23. **Procurement Supervision and Procurement Post Review:** Routine procurement reviews and implementation support will be provided by the World Bank procurement specialist based in the region/country office. In addition, two World Bank implementation support missions are expected to take place each year during which ex-post reviews will be conducted for the contracts that are not subject to Bank prior review on a sample basis (e.g., 15 percent in terms of number of contracts). One ex-post review report will be prepared per fiscal year, including findings of physical inspections for not less than 10 percent of the contracts awarded during the review period.

24. **Disclosure:** The following documents shall be disclosed in GKZGDK's website: (i) procurement plan and updates, (ii) invitation for bids for goods and works for all ICB and NCB contracts, (iii) request for expression of interest for selection/hiring of consulting services, (iv) contract awards of goods and works procured following ICB/NCB procedures, (v) list of contracts/purchase orders placed following shopping procedure on quarterly basis, (vi) short list of consultants, (vii) contract award of all consultancy services, (viii) list of contracts following DC or CQS or SSS on a quarterly basis, (ix) Monthly physical and financial progress of all contracts, and (x) action taken report on the complaints received on a quarterly basis. The works bidding documents shall include a clause to put up a notice board in the construction site disclosing the contract details (description, contractor name and contract amount, starting date, completion date, physical progress and financial progress).

25. The following details shall be sent to the Bank for publishing in the Bank's external website and UNDB: (a) invitation for bids for procurement of goods and works using ICB procedures, (b) request for expression of interest for consulting services with estimated cost more than US$300,000, (c) contract award details of all procurement of goods and works using ICB procedure, (d) contract award details of all consultancy services with estimated cost more than US$300,000, and (e) list of contracts/purchase orders placed following SSS or CQS or DC procedures on a quarterly basis.

PROCUREMENT PLAN - GOODS AND WORKS

Date of PP: (MM.DD.YEAR); Update No. _____; Date of WB NOL: (MM.DD.YEAR)

Description	Plan vs. Actual	Procu. Method	WB Review (Prior/ Post)	Date of Draft BD to WB	Date of Contract Completion
A2 Development of core Integrated Information System for Real Property Registration and Cadastre		ICB	Prior	June 2016	Jun 2018
A2 Completion and roll out of Integrated Information System for Real Property Registration and Cadastre		DC*	Prior	Dec 2017	June 2020
A3 Data Center - Supply, Installation and operationalization (SI)		ICB	Prior	Jun 2017	Jun 2018
A3 Data Center Construction and Modernization (Goods)		NCB	Prior	Jan 2017	Jan 2018
B1 Mass digitizing technology, digitizing pilot, hardware and software for 14 mobile oblast teams (DSI)		ICB	Prior	Jun 2016	Jul 2017
B1 Acquisition of high resolution satellite imagery		ICB	Prior	Aug 2016	Nov 2017
B2 Modernization of 14 oblast data integration and processing center offices (DSI)		multi NCB	Prior	Sep 2017	Mar 2021
C2 Continuously Operating Reference Stations (CORS) network control center (h/w and s/w)		Shopping	Prior	Jun 2019	Jul 2020
D5 Office furniture and equipment		Shopping	Prior	Jun 2016	Sep 2016

* The contract will be awarded to the contractor who successfully completed the contract "Development of core Integrated Information System for Real Property Registration and Cadastre", otherwise, ICB

UZBEKISTAN
Modernization of Real Property Registration and Cadastre Project
PROCUREMENT PLAN - Consultancy

Date of PP: (MM.DD.YEAR); Update No. _____; Date of WB NOL: (MM.DD.YEAR)

A1 Business Process Analysis and Re-Engineering for Integrated Information System for Real Property Registration and Cadastre		QCBS	Prior	Jun 2016	Jun 2017
C1 Integration with the e-Government structure		QCBS	Prior	Jun 2016	Jun 2017
C2 Spatial Data Infrastructure and higher geodesy knowledge transfer (multiple)		IC	Prior**	Jun 2016	Feb 2019
C3 Computer-assisted mass valuation prototype system development		QCBS	Prior	Dec 2019	Dec 2020
D1 Customer service improvement (multiple)		IC	Prior***	Jun 2016	Feb 2019
D2 Institutional Development (multiple)		IC	Post****	Jan 2019	Dec 2020
D3 Policy and regulatory framework improvement (multiple)		IC	Prior*****	Jun 2016	Feb 2019
D5 Project Implementation Unit		IC	Prior	Jun 2016	Feb 2021
D5 Customer surveys in 2016, 2018 and 2020		CQS	Prior	Jun 2016	Feb 2021

** Three individual Consultants;
*** Ten individual Consultants
**** Six individual Consultants
***** Seven individual Consultants

THRESHOLDS FOR PROCUREMENT METHODS AND BANK PRIOR REVIEW

Expenditure Category	Contract Value Threshold (US$)	Procurement Method	Contracts Subjects to Prior Review (US$)
Goods (including technical services)	>=500,000	ICB	All ICB contracts
	<500,000	NCB	First 2 contracts
	<=100,000	Shopping	First 2 contracts
	N/A	DC*	All DC contracts
Works	>=1,000,000	ICB	All ICB contracts
	<1,000,000	NCB	First 2 contracts
	<200,000	Shopping	First 2 contracts
	N/A	DC*	>=20,000
Consultant Services (including training)	<=200,000	QCBS/QBS/LCS/FBS a/b/	
	>200,000	CQS	
	N/A	SSS*	>=50,000 for firms;

	N/A	IC	>=50,000 for individuals & all SSS contracts

Notes: a/Shortlist may be composed entirely of national consultants for assignments of less than US$100,000 equivalent per contract.

b/ As appropriate, these methods may be adopted for assignments costing less than $200,000.

ICB - International Competitive Bidding
NCB - National Competitive Bidding
DC - Direct Contracting
QCBS - Quality and Cost Based Selection
QBS - Quality Based Selection
LCS - Least Cost Selection
FBS - Fixed Budget Selection
CQS - Selection Based on Consultants' Qualification
SSS - Single Source Selection
IC - Individual Consultants
* - To be reflected and agreed in the PP in advance

26. **Anti-Corruption Measures:** The Bank's Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants dated October 15, 2006 and revised in January, 2011 and the transparency and disclosure provisions of the Bank's Procurement and Consultants Guidelines, published in June 2011 and revised July, 2014 will apply.

Environmental and Social (including safeguards)

27. GKZGDK has appointed a staff member within the PIU responsible for environmental management of the project, who has developed an Environmental Management Framework (EMF). The EMF: (i) outlines the general anticipated project environmental risks and impacts and associated mitigation measures, (ii) describes the process of environmental screening and provides specific guidance on contents for preparation of a Checklist Environmental Management Plan (EMP) and site-specific EMPs; and (iii) indicates institutional responsibilities for preparation, review/approval, implementation and monitoring/reporting of the EMPs. The EMF was approved by the World Bank and disclosed at GKZGDK and the National Center for Geodesy and Cartography website.

28. Once the scope of renovation activities will be defined and the design documentation developed, GKZGDK will screen the documentation and request the contractors to develop either an EMP Checklist or an EMP following the guidelines stipulated in the EMF. The PIU

staff responsible for environmental management will check and clear EMP Checklists / EMPs and monitor the EMP implementation by the contractor.

29. Environmental screening of the renovation activities will be essential to ensure that they are properly categorized and the required environmental review is carried out. The initial step of screening will exclude the following: (i) any activities involving the involuntary taking of land resulting in relocation or loss of shelter, loss of assets or access to assets, loss of income sources or means of livelihood; or (ii) any activities likely to have significant adverse environmental impacts that are sensitive, diverse, or unprecedented, that would be classified as 'Category A' in accordance with the Banks policies and procedures.

30. As per the requirements of the World Bank OP 4.01, the draft EMF was consulted with project-affected groups and local nongovernmental organizations (NGOs) and feedback received and appropriately recorded. The final EMF, including consultations documentation, was re-submitted to the World Bank and re-disclosed by the Borrower before appraisal.

31. The table below briefly describes responsibilities of GKZGDK, the contractors and the World Bank in the implementation process.

Participant	Activity	Supporting Documentation
Contractors	• Developing an EMP checklist/ EMP • Arranging and financing of environmental due diligence • Obtaining required permits/licenses	• Copies of permits, licenses • Clearance statements • Periodic reports and completion report • Environmental due diligence documents such as EMPs and EMP checklists
GKZGDK	• Review and clear environmental screening forms, • Review of sub-project application package for required environmental documentation and licenses/permits from the State authorities • Maintain complete files of environmental documentation for review by WB • Monitoring compliance with mitigation plans • Report on Implementation of EMF	• File environmental information with renovation design documentation • Include environmental monitoring / supervising information in regular portfolio reporting to WB • Include environmental documentation in normal MoES records • Periodic monitoring / supervising reports (if necessary)
WB	• Provide information and clarification of the WB safeguard policy requirements. • Carry out prior and post reviews	• Provide assistance • Document status of project implementation in

	• Identify of problems/ issues and propose solutions • Carry out field supervision	Implementation Status and Results reports and the mission Aide-Memoires

Social impact

32. The project does not trigger any social safeguards, as there is no land acquisition involved or other activities resulting in changes to land ownership, access or tenure. As such, no negative social impacts of the project are foreseen. The project is expected to have some positive social impact through an explicit focus on gender and social inclusion in several project activities. Even though the law prescribes equal rights in relationship to formal property ownership, due to cultural norms and practices, men are more likely to hold property and be in charge of decisions related to property transactions. Collecting gender disaggregated data on numbers of property holders through the digital real property registry will allow generating evidence for further analysis on this issue. To develop a more nuanced understanding of social and gender issues related to land tenure and registration, a social assessment is planned as part of the project preparation. The results of the assessment will inform the design of public information and targeted communication campaigns and contribute to proposals for reforms to ensure greater inclusion. The project will further have a positive impact on improving the way GKZGDK engages with citizens. Support will be provided to develop public awareness campaigns, with particular focus on targeting more vulnerable groups. To improve transparency and responsiveness of services delivered by GKZGDK, mechanisms for gathering citizen feedback will be strengthened and customer orientation improved. Existing mechanisms for citizen appeals would be reviewed and recommendations for strengthening developed, including improving the existing customer hotline, which would act both as a mechanism for providing more detailed procedural guidance to the customers, but will also serve as grievance redress mechanism, and collect valuable feedback for improving procedures and policies. The project will also introduce customer satisfaction surveys (gathering gender-disaggregated information), which will be undertaken at regular intervals, to provide an analysis of the trends in customer satisfaction. Additionally, public consultations on relevant policy and procedural issues will be organized

Monitoring & Evaluation

33. Monitoring and evaluation of outcomes and results are a core part of the project design. The monitoring will focus on: (i) regular performance monitoring of project outputs, through the establishment of a computerized M & E system; and (ii) periodic customer surveys to monitor customer satisfaction and compliance with service standards as well as issues related to cadastre renovations and their impact on users. A base line customer survey will be adopted/carried out in the first year of project implementation. The PIU will be responsible for collecting and

presenting data on output targets and progress in quarterly progress reports submitted to the government and the World Bank. Outcome indicators will also be monitored on a semi-annual basis by the World Bank implementation support missions.

Role of Partners (if applicable)

Annex 4: Implementation Support Plan

UZBEKISTAN: Modernization of Real Property Registration and Cadastre Project

Strategy and Approach for Implementation Support

1. The Implementation Support Plan (ISP) describes how the World Bank will support the implementation of the risk mitigation measures identified in the Systematic Operations Risk-rating Tool (SORT) and provide the technical advice necessary to facilitate the implementation of project activities for achieving the project development objective. The main objective of the ISP is to ensure timely award of contracts, quality of consultants' outputs including timely review and decision-making on outputs by the GKZGDK, effective knowledge transfer, and adherence to the implementation schedule.

2. The ISP also identifies the minimum requirements to meet the World Bank's fiduciary obligations. Emphasis will be placed on upstream reporting, auditing and accountability, and technical compliance measures to ensure early detection and remedy of problems.

3. The PIU/GKZGDK will prepare and submit to the Bank a detailed project implementation progress report on a quarterly basis, which will provide the status of project activities and identify implementation issues. These reports combined with site visits will be used as the basis for undertaking substantive reviews of implementation progress and reaching agreement with the client on: (i) the outcome of the reviews, (ii) project areas requiring strengthening and more targeted capacity building, (iii) approaches for the resolution of implementation issues, and (iv) revision of the implementation schedule and verification of consistency between the project activities as planned and the financing plan, if needed. The PIU will also submit an annual work plan, updated budget and procurement plan at the end of the calendar year for World Bank non-objection for the following year.

4. The Bank's project team will provide timely and effective implementation support through a combination of regular supervision and liaison with the client from HQ (via audio/video) and semiannual implementation support missions in-country. An effort will be made to have a project focal person in the country office in Tashkent to provide more effective supervision and timely implementation support to GKZGDK. Key members of the Bank's team, including the procurement, financial management, environmental and social development specialists are based in the region and in the country office and will also provide timely support and guidance.

5. **Technical inputs**. Technical knowledge of land registration and cadastre, information technology, and engineering works and site supervision are required for reviewing bid documents to ensure fair competition through proper technical specifications and fair assessment of the technical aspects of bids/contracts. During project implementation, technical supervision is required to ensure contractual obligations are met. The Bank's Project team and PIU staff will conduct site visits to regional and local offices on a regular basis throughout the duration of the Project to review ICT roll-out progress, construction works, and other project activities.

6. **Fiduciary requirements and inputs**. Training will be provided by the Bank's financial management specialist and the procurement specialist during project implementation. The team will support GKZGDK and its PIU in their financial management capacity and to improve procurement management efficiency. The financial management and procurement specialists will be based in the field and thus be able to provide timely support. Supervision of financial management arrangements will be carried out semi-annually as part of the project supervision plan and support will be provided on a timely basis to respond to client needs. Procurement supervision will be carried out on a timely basis as required by the client. Concerning financial management, the World Bank will conduct risk-based financial management implementation support and supervision within six months from the project effectiveness date, and then at appropriate intervals, as part of its project implementation and supervision missions. During project implementation, the World Bank will supervise the project's financial management arrangements in the following ways: (i) review the project's quarterly IFRs as well as the project's annual financial statements and the auditor's management letters and remedial actions recommended in the auditor's management letters; and (ii) during the World Bank's on-site missions, review the following key areas: (a) project accounting and internal control systems; (b) budgeting and financial planning arrangements; (c) disbursement arrangements and financial flows, including counterpart funds, as applicable; and (d) any incidences of corrupt practices involving project resources. As required, a World Bank-accredited financial management specialist will participate in the implementation support and supervision process.

7. **Environmental and Social Safeguards:** The Bank's environmental and social safeguards specialists will provide regular support in strengthening the safeguards management capacity of GKZGDK. In addition, the Bank's environment safeguards specialist will closely monitor implementation of the EMP, will conduct site field visits on annual basis to monitor the implementation of safeguards policies and provide guidance to the GKZGDK's environment safeguards team to address the issues that may arise. The social specialist will be engaged on an as-needed basis, should any involuntary resettlement or land acquisition issues arise.

Implementation Support Plan

Time	***Focus***	***Skills Needed***	***Resource Estimate***	***Partner Role***
First twelve months	Start-up of large consultant support contracts, and review of bidding documents; M&E arrangements/ defining baselines; Support with implementation of institutional capacity building	Project Management/Operations/M&E Cadastre and Geodesy ICT Legal FM Procurement Social Environmental		Coordination with NGIS program (and ADB) on the development of a digital Real Property Registry and Cadastre system.
12-60 months	Effective development and roll-out of	Project Management/Operations Cadastre and ICT		

	land registry and cadastre; Support with implementation of institutional capacity building and knowledge transfer	Legal Financial management Procurement Social Environmental		

Skills Mix Required

Skills Needed	***Number of Staff Weeks***	***Number of Trips***	***Comments***
Project management	*10/year*	*2/year*	To be adjusted annually based on actual budgets provided
Operations	*4/year*	*2/year*	
Land Administration/legal	*5/year*	*2/year*	
Cadastre specialist	*5/year*	*2/year*	
IT expertise	*6/year*	*3/year*	
Social	*2/year*	*1/year*	
Environmental	*2/year*	*1/year*	
Procurement	*2/year*		
Financial Public	*1/year*		
Communications	*1/year*		

Partners

Name	***Institution/Country***	***Role***

Annex 5: Economic and Financial Analysis

UZBEKISTAN: Modernization of Real Property Registration and Cadastre Project

1. The Uzbekistan Modernization of Real Property Registration and Cadastre Project (MRPRCP) has four components, each of which bring in significant economic and financial benefits to Uzbekistan. The four project components are:

Component A: Real Property Register and Cadastre System Development
Component B: Real Property Registration and Cadastre Data Development
Component C: Use of Real Property Register and Cadastre Data
Component D: Project Management and Institutional Development

2. For the purpose of this section, the benefits of components A, B, and C will be analyzed together as the full benefits towards land and real estate market development can be realized only when the system is operational, reliable and accurate data is available, and that data is being used. Component D will be analyzed separately under project management and institutional development.

Land and Real Estate Market Development (Components A, B, and C)

3. Well-functioning real estate markets depend on the transparency, availability, reliability, and accuracy of land and property ownership records. Together, components A, B, and C will enable Uzbekistan to develop a state-of-the-art real property and cadastre infrastructure. A unified and computerized system along with national spatial data infrastructure (NSDI) to link to the GOU's other key registers will yield the following economic and financial benefits for the country:

a. Reduced transaction steps;
b. Reduced transaction cost;
c. Increased sales;
d. Increased mortgage market activity;
e. Increased SME access to finance; and
f. Increased property tax collection.

These benefits are discussed below in detail.

A. *Reduced Transaction Steps*

4. One of the most immediate and noticeable benefits of a computerized and unified real property and cadastre system is the reduction in the number of steps to process transactions. While the GKZGDK is able to process transactions in one day[6], the number of steps to register a

[6] Registration of purchase/sale transactions (which is one of the procedures to complete the transaction process) already happen in one day in GKZGDK offices; however, the overall property transaction process takes 46 days (Doing Business 2016).

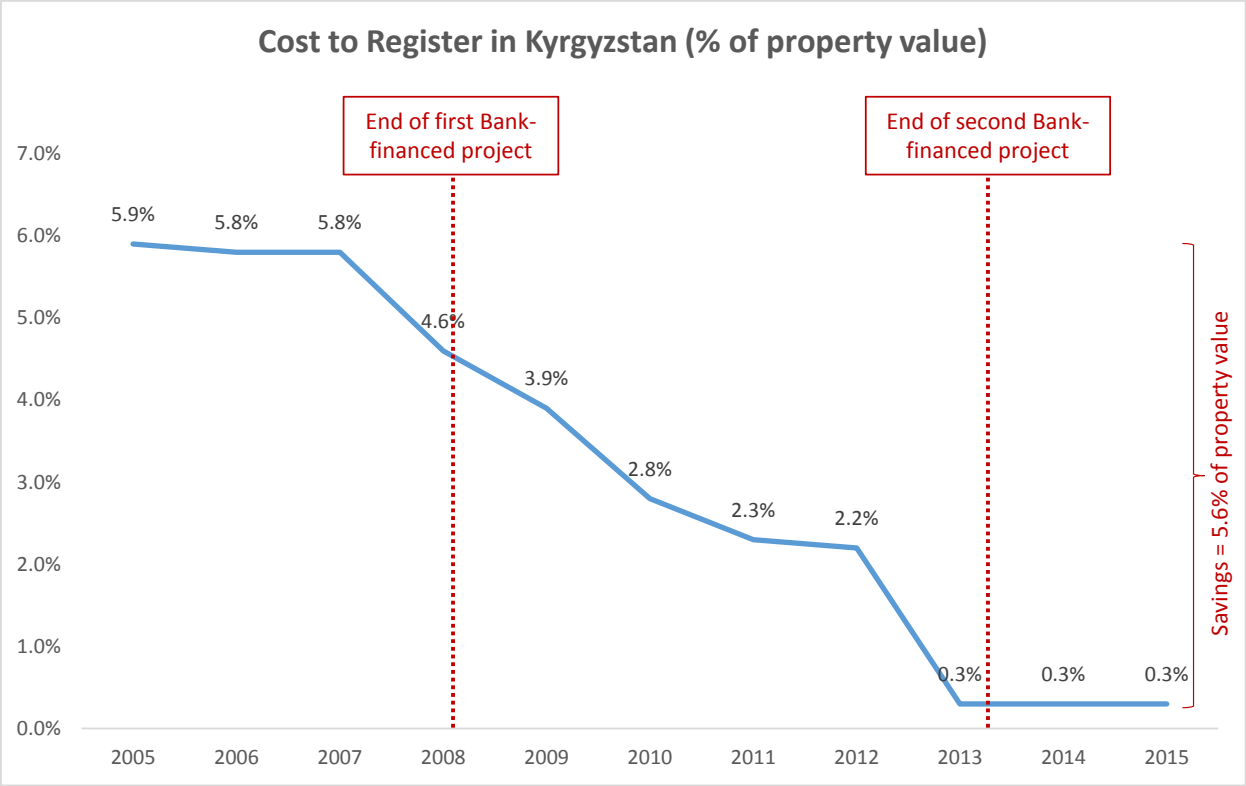
property is 9 and the project aims to reduce these steps to 6, thereby simplifying procedures and increasing the efficiency of real property markets. It can also leads to productivity gains for both GKZGDK staff as well as the general public (customers) that uses the services, as the staff will need to check fewer documents and the customers will need to spend less time completing these steps.

B. *Reduced Transaction Cost*

5. Another benefit that can be expected from this project is a reduction in transaction cost. Efficiency and productivity gains realized from the unified and computerized real property and cadastre system can create opportunities for GKZGDK to reduce its fees and transfer the benefits to its customers. For the existing number of transactions, this is a mere transfer of income from GKZGDK to Uzbek citizens. However, if the number of transactions increases (see C. Increased Sales), customers will benefit from lower costs that would not have been possible without the project. Depending on the number of increased customers as a result of increased sales as well as reduced cost per transaction, the customers will be able to save money on real estate transactions and these savings can either be used to buy other products and services (consumption) or invested elsewhere (investment). An increase in both consumption and investment will increase the gross domestic Product (GDP) of the country.

6. As an illustrative example, over the course of two Bank-financed projects in Kyrgyzstan, the transaction cost defined as percentage of property value fell from 5.9% in 2005 to 4.6% in 2008 (end of the first Bank-financed project) and further to 0.3% in 2013 (end of the second Bank-financed project).[7] This represents a total decrease in transaction cost of 5.6% of property value in Kyrgyzstan. The figure below illustrates this decrease.

[7] Source: Doing Business reports.



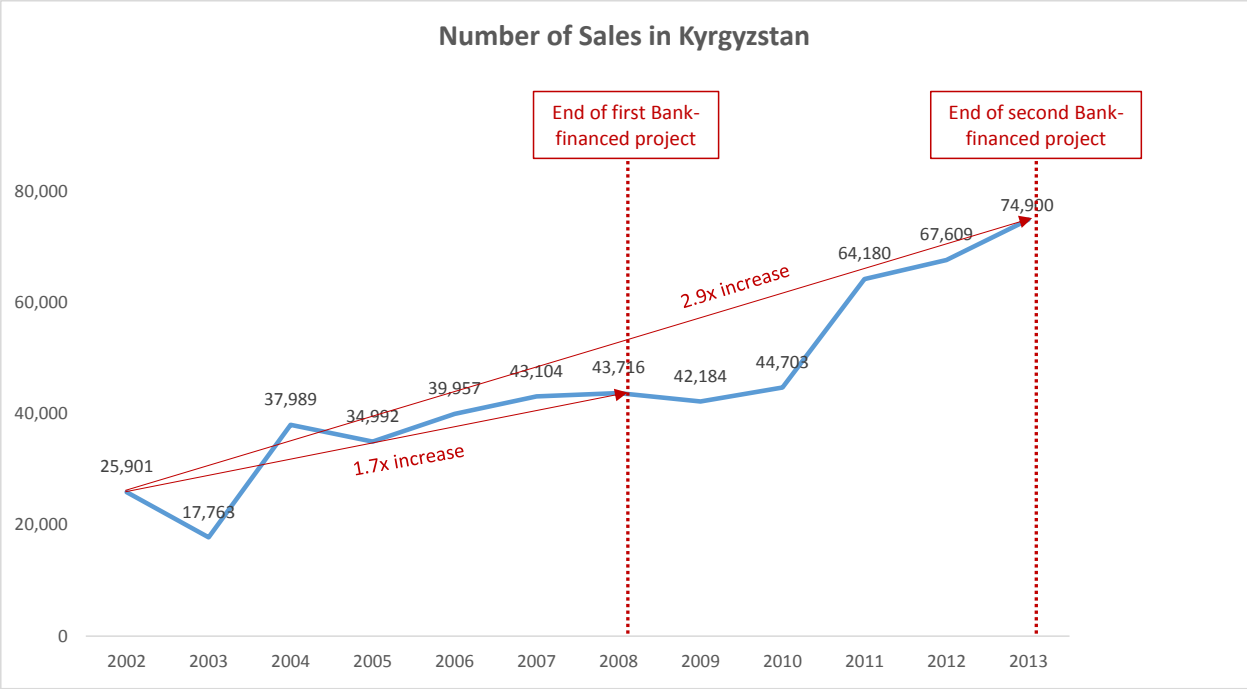
C. *Increased Sales*

7. A more efficient and transparent system where both transaction steps and cost have gone down will spur more transactions as long as market demand for these transactions exists. An increased number of sales (of buildings), in turn, will not only generate more revenues for the GKZGDK (through fee collected for registering a sales transaction) but also develop the land and real estate market in Uzbekistan.

8. As an illustrative example, over the course of two Bank-financed projects in Kyrgyzstan, the number of sales increased by 1.7x between 2002 and 2008 (end of the first Bank-financed project) and by 2.9x between 2002 and 2013 (end of the second Bank-financed project).[8] The figure below illustrates this increase.

9. Assuming growth rates between 1.5x to 2.0x, Uzbekistan's current number of sales of 274,627[9] are estimated to increase to somewhere between 411,940 and 549,254. As a result, GKZGDK revenue is also expected to go up. Additionally, the increase in the number of sales will boost activity in the real estate sector in Uzbekistan.

[8] Source: Project Implementation Completion Reports (ICRs).
[9] 274,627 is the average number of transactions over 2012, 2013, and 2014. Source: GKZGDK.

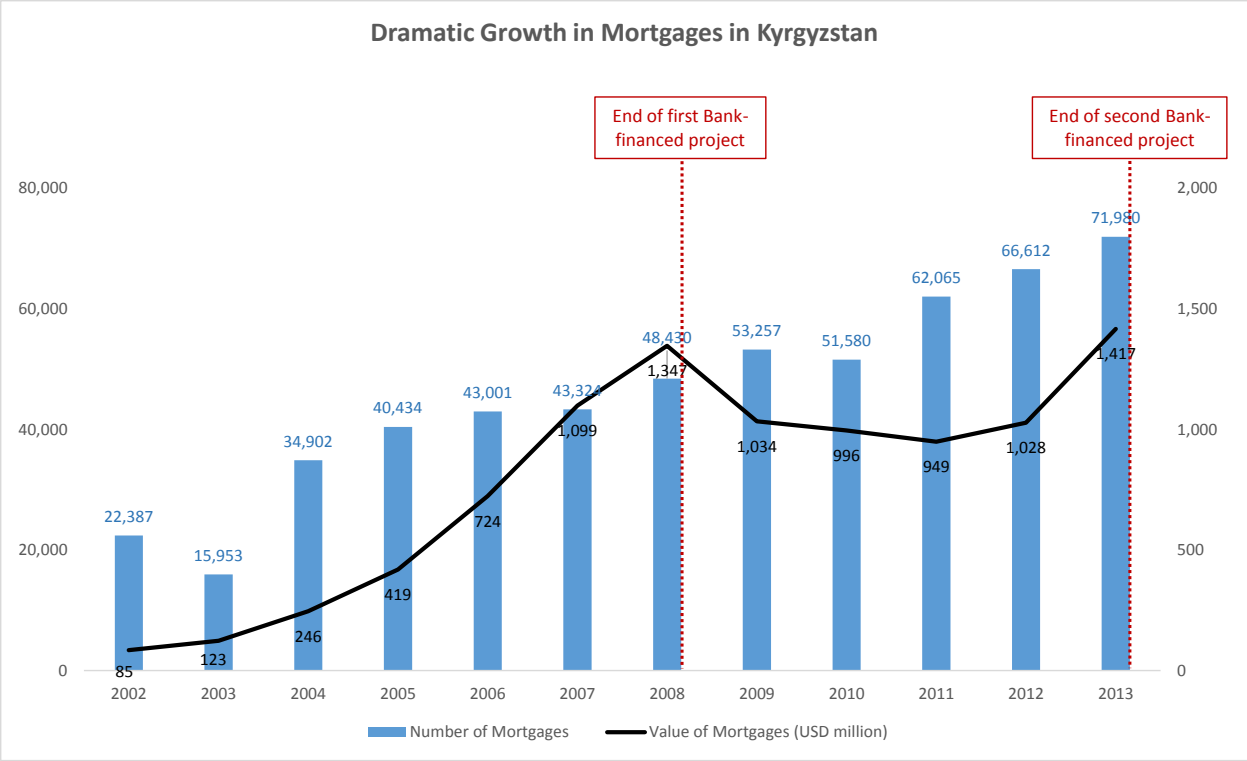


D. *Increased Mortgage Market Activity*

10. The benefit of the project will also be visible in increased mortgage market activity both in terms of the number of mortgages and their value. The increased activity is a result of several factors, including: (a) increased security of tenure through a more transparent and efficient system; (b) increased online availability of data to help banks and notaries make necessary checks; and (c) increased reliability of data through cadastral map renewal and national spatial data infrastructure. All these factors increase data reliability and availability, improve the trust banks and notaries have in the existing system, and increase the transparency and efficiency with which transactions can be carried out. Furthermore, as banks begin to trust land and property records from the cadastre system, they will be more willing to lend against the collateral (land and/or real estate). This not only increases the number of mortgages in the system but also the loan-to-value ratio which, in turn, increases the volume of mortgages in the economy.

11. As an illustrative example, over the course of two Bank-financed projects in Kyrgyzstan, the number of mortgages increased by 2.2x from 22,387 in 2002 to 48,430 in 2008 (end of the first Bank-financed project) and by 3.2x to 71,980 in 2013 (end of the second Bank-financed project).[10] At the same time, the volume of mortgages increased by 15.9x from US$85 million in 2002 to US$1.3 billion in 2008 (end of the first Bank-financed project) and by 16.7x to US$ 1.4 billion in 2013.[11] These are remarkable achievements for a country of only 5.6 million people. The figure below illustrates the dramatic increase in the number and volume of mortgages in Kyrgyzstan. Given Uzbekistan's population of 30 million and a bigger market size, the monetary value of the gains is estimated to be much larger.

[10] Source: Project Implementation Completion Reports (ICRs).
[11] Source: Project Implementation Completion Reports (ICRs).



E. *Increased Access to Finance for SMEs*

12. Similar to the rationale behind the increase in mortgages is the increase in small and medium enterprises' (SMEs) access to finance. SMEs that use property as collateral are also expected to benefit from this project both in terms of the number of loans they can get and the volume of loans as the loan-to-value ratios are likely to go up with increased reliability and accuracy of data. Greater access to finance will help SMEs expand their businesses, create jobs, and help boost the GDP of the country. The magnitude of increased access to finance for SMEs will depend on the percentage of Uzbekistan's current SMEs that use property as collateral to obtain business loans.

F. *Increased Property Tax Collection*

13. The availability of more accurate and up-to-date cadastral map information that matches the situation on the ground is an important resource for the GOU to determine property tax. This will be facilitated by both digitization of residential and non-residential buildings maps and cadastral map renewal. With this information, the GOU will have an up-to-date database to ensure more accurate coverage for the purpose of property tax collection. Later this database can be developed further by adding property value information which will be crucial for moving to a value-based property system, which is more equitable (as the person with a less valuable property pays lower tax) and can also increase the overall property tax collection for the GOU (as persons with higher value properties pay a value-based instead of a lump-sum tax). This issue of value-based taxation is out of the scope of the proposed project but it illustrates the potential of developing the underlying data and maps.

G. *Business Model Reform*

14. In 2013, GKZGDK received US$15.5 million in funding from the state budget. GKZGDK's Rayon and City offices operate on self-financing basis, but the income mainly derives from the technical inventory activity[12] and not from the registration of transactions. GKZGDK's business model plans will be revisited as part of the project aiming to a sustainable business model for the entire agency funded from the registration fees and services, which would partially or completely reduce GKZGDK's dependence on the state budget. This is estimated to represent an annual saving of US$3.10 million (20 percent self-financing scenario) to US$7.75 million (50 percent self-financing scenario) for the Government and can be used for other investments in areas such as health, education, and eGovernance platforms in other sectors of the economy.

[12] Update of cadastral survey and engineering records required for property transactions.