ADB

Technical Assistance Report

Project Number: 55109-001
Knowledge and Support Technical Assistance (KSTA)
October 2021

Kyrgyz Republic: Supporting the Completion of e-Procurement System Digitalization (Phase 1)

Asian Development Bank

ABBREVIATIONS

ADB	–	Asian Development Bank
EAKPF	–	Republic of Korea e-Asia and Knowledge Partnership Fund
ICT	–	information and communication technology
IT	–	information technology
PPD	–	Public Procurement Department
TA	–	technical assistance

GLOSSARY

blockchain	–	system of information recording that eliminates the possibility for unauthorized change, hack, or cheating
e-procurement	–	electronic procurement, purchase, and sale of goods, works, and services through a web interface or other networked system
e-GP	–	electronic government procurement system

NOTE

In this report, "$" refers to United States dollars.

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KNOWLEDGE AND SUPPORT TECHNICAL ASSISTANCE AT A GLANCE

1.	**Basic Data**			**Project Number: 55109-001**	
	Project Name	Supporting the Completion of e-Procurement System Digitalization (Phase 1)	**Department/Division**	CWRD/KYRM	
	Nature of Activity	Capacity Development	**Executing Agency**	Ministry of Finance	
	Modality	Regular			
	Country	Kyrgyz Republic			

2.	**Sector**	**Subsector(s)**	**ADB Financing ($ million)**
✓	Public sector management	Public administration	0.25
	Information and communication technology	ICT industries and ICT-enabled services	0.25
		Total	**0.50**

3.	**Operational Priorities**	**Climate Change Information**	
✓	Strengthening governance and institutional capacity	GHG Reductions (tons per annum)	0.000
		Climate Change impact on the Project	Low
		ADB Financing	
		Adaptation ($ million)	0.00
		Mitigation ($ million)	0.00
		Cofinancing	
		Adaptation ($ million)	0.00
		Mitigation ($ million)	0.00

	Sustainable Development Goals	**Gender Equity and Mainstreaming**	
	SDG 1.a	No gender elements (NGE)	✓
	SDG 8.2, 8.3		
	SDG 10.3	**Poverty Targeting**	
	SDG 16.5, 16.6	General Intervention on Poverty	✓

4.	**Risk Categorization**	Low

5.	**Safeguard Categorization**	Safeguard Policy Statement does not apply

6.	**Financing**

Modality and Sources	Amount ($ million)
ADB	**0.50**
Knowledge and Support technical assistance: Technical Assistance Special Fund	0.50
Cofinancing	**0.50**
Republic of Korea e-Asia and Knowledge Partnership Fund (Full ADB Administration)	0.50
Counterpart	**0.00**
None	0.00
Total	**1.00**

Currency of ADB Financing: US Dollar

I.   INTRODUCTION

1.   The knowledge and support technical assistance (TA) will support the Government of the Kyrgyz Republic in developing and increasing the capacity for information technology (IT)-enabled services in electronic procurement (e-procurement). This will be achieved by digitalizing the government's e-procurement system and shifting all procurement transactions online with better functionality and security. The TA will (i) develop new software to replace paper-based operations, (ii) modernize existing software, and (iii) procure equipment to implement the enhanced system.

2.   The TA is included in the Asian Development Bank (ADB) country operations business plan for Kyrgyz Republic, 2021–2023.[1] The TA is aligned with ADB's Strategy 2030 and will contribute to the operational priority of strengthening governance and institutional capacity.[2]

II.   ISSUES

3.   The government implemented its e-procurement system (e-GP) during 2013–2016 with TA from ADB.[3] Since 2015, all government agencies and state-owned enterprises have used e-GP to process their procurement transactions. The government estimates that e-GP reduces procurement costs by 10% on average and enables the government and the public to verify all agencies' procurement planning and transactions online. It also added an effective complaint mechanism, which improved bidder participation.[4] However, three major problems with e-GP have become apparent: (i) limited functionality and security lapses, (ii) several paper-based procurement steps that should be digitalized, and (iii) outdated data management infrastructure that lacks capacity. Solving these problems would save additional procurement time and costs, as well as promote transparency and efficiency in public procurement administration.

4.   Since being introduced, e-GP's software has not been updated to improve functionality and is increasingly out of date. Updating the software using the latest information technologies will make e-GP more effective in terms of output (more operations processed) and required inputs (hardware capacity) and reduce security-related threats. Because of resource limitations, the first TA to implement e-GP (footnote 3) could not cover all procurement processes and create an end-to-end system. Instead, a partially online system was developed that covers preparation of the procurement plan and advertising, online issuance of bidding documents, and bid submission and opening. Bid evaluation; contract award, generation, and signing; contract implementation; monitoring; and payments are still processed on paper. New software needs to be developed to shift these transactions online. Further, the equipment for data management (servers and auxiliary equipment) were purchased in 2015 and are now past their useful lifetime and working at maximum capacity. The envisaged improvement of e-GP will require updated equipment with additional capacity.

5.   ADB assistance is needed because the country has limited expertise with IT systems for e-procurement, coupled with insufficient resources to finance digital transformation in the sector. However, the government has a strong commitment to digital transformation. As the first e-procurement project demonstrated, the government has the capacity to maintain such e-platforms. This TA aims to make the new e-GP system financially self-sufficient by introducing subscription fees for bidders.

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[1] The TA first appeared in the business opportunities section of ADB's website on 1 December 2020.
[2] ADB. 2018. *Strategy 2030: Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific*. Manila.
[3] ADB. *Kyrgyz Republic: Implementing the e-Procurement System Project.*
[4] Government of Kyrgyz Republic. 2021. *Annual Procurement Reports.* Bishkek

6. This TA will build on the results of a previous TA during 2013–2016, which helped develop and launch the government's e-GP system. The TA completion report recommended to "continue enhancing the performance, usability, and functionality of the e-GP system."[5] This new TA will be a continuation of the joint efforts of ADB and the government to promote development through digitalization and greater use of services enabled by information and communication technology (ICT).

7. In 2020, in response to the government's request, ADB initiated small-scale TA to help solve e-GP's urgent problems. Limited hardware capacity caused major shutdowns, and bidders lodged numerous complaints about the confidentiality of price bids submitted through e-GP.[6] The small-scale TA helped the Public Procurement Department (PPD) of the Ministry of Economy and Finance (i) implement asymmetric encryption to provide security and confidentiality of bids; (ii) introduce e-signatures to replace paper signing and provide better authentication and confirmation of transactions, including bid submissions; (iii) purchase equipment to increase the system's capacity; and (iv) prepare a road map for completion of e-GP digitalization. The road map is the basis for this knowledge and support TA. The IT consultant under the small-scale TA defined the scope of work needed to complete the digitalization and estimated a total cost of $1.6 million. This TA will finance an initial set of activities for $1.0 million during 2021–2025. In 2023, follow-up TA or additional financing will be proposed to complete the full digitalization of the e-GP system during 2023–2026.

III. THE TECHNICAL ASSISTANCE

A. Impact and Outcome

8. The TA is aligned with the following impact: improvement of public procurement administration in the Kyrgyz Republic[7] through greater use of ICT.[8] The TA will have the following outcome: improved functionality of e-GP with at least 80% of procurement transactions performed online.[9]

B. Outputs, Methods, and Activities

9. **Output 1: New e-GP modules developed and existing modules enhanced.** The following transactions and functions will be transitioned to the e-GP system: (i) external IT systems integration (including data exchange and ICT integration with other state agencies to confirm a firm's registration, taxes paid, and licenses); (ii) bid and contract security submission using blockchain technology; (iii) bid evaluation (technical and financial) and identification of the winning bidder; and (iv) contract award and notification. The remaining functions, such as e-payment, an English version of the website, report generation, and other enhancements, will be addressed in the follow-up TA. The project will also enhance existing modules by upgrading the system's software.

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[5] ADB. 2016. *Technical Assistance Completion Report: Implementing the e-Procurement System.* Manila.
[6] ADB. *Kyrgyz Republic: Enhancing Knowledge and Capacity for Public Procurement System.*
[7] Government of Kyrgyz Republic. 2019. *Digital Kyrgyzstan: National Concept of Digital Transformation, 2019–2023*. Bishkek.
[8] ADB. 2018. *Strategy 2030: Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific*. Manila.
[9] The design and monitoring framework is in Appendix 1.

10.   **Output 2: IT audit performed.** For e-GP, the confidence of both purchasers (government agencies) and bidders (private businesses) in the security and confidentiality of the system is of paramount importance. An IT audit firm will study the e-GP system before new software is developed (output 1) and recommend improvements that will be implemented by a software development firm. After the new software is developed and put into service, the IT audit firm will perform a final audit to confirm the security and reliability of the e-GP system.

11.   **Output 3: Equipment for data management purchased.** New IT equipment will accommodate a larger and more sophisticated software system needed to achieve the project outcome

12.   **Innovative features.** TA will help the government fully digitalize its e-procurement system with advanced ICT. New modules to replace paper-based operations and upgrade existing ones will be developed or updated using new and updated technology. This will result in an advanced end-to-end e-procurement system, matching international best standards. Additionally, the bid and contract security submission function will incorporate blockchain technology, which will be the first such system in Central Asia. This will replace paper-based bank guarantees with online submissions; blockchain technology will be used to verify and authenticate such guarantees.

C.   Cost and Financing

13.   The TA is estimated to cost $1,000,000, of which $500,000 will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF 7) and $500,000 will be financed on a grant basis by the Republic of Korea e-Asia and Knowledge Partnership Fund (EAKPF) and administered by ADB. The key expenditure items are listed in Appendix 2.

14.   The government will provide counterpart support in the form of counterpart staff, office accommodation for consultants, Internet connection, access to e-GP software and hardware, information and documents relevant to TA implementation, and other in-kind contributions.[10]

D.   Implementation Arrangements

15.   ADB will administer the TA and its Kyrgyz Republic Resident Mission will select, supervise, and evaluate the consultants and monitor the quality of their work. The Ministry of Finance of the Kyrgyz Republic will be the executing agency; the ministry's PPD will be the implementing agency, responsible for coordinating with the relevant government agencies and organizations. The TA will be implemented over 50 months from November 2021 to December 2025. The TA resources will be disbursed following ADB's Technical Assistance Disbursement Handbook (2020, as amended from time to time). The TA does not require logistical support from PPD.

16.   ADB's Sustainable Development and Climate Change Department's Digital Technology for Development Unit and the Procurement, Portfolio and Financial Management Department will be informed on the project's progress, and their advice will be sought on the project's key issues.

17.   ADB is preparing the Central Asian Regional Economic Cooperation Digitalization Strategy, which is scheduled for approval in 2021. The project will also coordinate activities with the Kyrgyz Ministry of Digital Development, which is the nodal agency for all ICT-related activities in the country.

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[10] Counterpart support to be provided by the Public Procurement Department under the Ministry of Economy and Finance

18.   Implementation arrangements are summarized in the table.

Implementation Arrangements

Aspects	Arrangements		
Indicative implementation period[a]	November 2021–December 2025		
Executing agency	Ministry of Finance		
Implementing agency	Public Procurement Department under the Ministry of Finance		
Consultants	To be selected and engaged by ADB		
	Firm: quality-and-cost-based-selection method (90:10)	Software development (national selection)	$428,000
	Firm: quality-and-cost-based-selection method (90:10)	IT Audit (International selection)	$63,000
	Individual: individual consultant selection	International IT expert (4.5 person-months)	$68,000
	Individual: individual consultant selection	International blockchain expert (2.3 person-months)	$85,000
	Individual: individual consultant selection	International procurement expert (1 person-month)	$20,000
	Individual: individual consultant selection	National project coordinating expert (35.5 person-months)	$70,000
Procurement[a]	To be procured by the implementing agency		
	Open competitive bidding with national advertisement	1 contract for supply of servers and other major equipment	$180,000
	Open competitive bidding: request for quotations	1 contract for supply of supplementary equipment	$20,000
Disbursement	Disbursement of TA resources will follow ADB's *Technical Assistance Disbursement Handbook* (2020, as amended from time to time). Because EAKPF does not finance the purchase of equipment, output 3 will be 100% financed from ADB's share. All other financing and disbursements will be prorated at ADB: 37.5/EAKPF: 62.5 ratio.		
Asset turnover or disposal arrangement upon TA completion	All assets purchased (IT equipment: servers and ancillary equipment) upon completion of this TA will be transferred to the implementing agency.		

ADB = Asian Development Bank, EAKPF = Republic of Korea e-Asia and Knowledge Partnership Fund, ICT = information and communication technology, IT = information technology, TA = technical assistance.
[a] Procurement Plan (accessible from the list of linked documents in Appendix 3).
Source: ADB.

19.   **Consulting services.** ADB will engage the consultants following the ADB Procurement Policy (2017, as amended from time to time) and its associated project administration instructions and/or staff instruction.[11]

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[11] Terms of Reference for Consultants (accessible from the list of linked documents in Appendix 3).

20.   **Procurement.** PPD will procure equipment following ADB's Procurement Policy and Procurement Regulations for ADB Borrowers (2017, as amended from time to time) and its associated project administration instructions and/or staff instructions. Procurement will be split into two packages. One package will be procured in the first year of project implementation and cover the major equipment needed (such as servers) using open competitive bidding with national advertisement. The second package will be procured in the last year of project implementation and cover supplementary equipment (identified during project realization) using the open competitive bidding: request for quotations method. All goods procured under this TA will be transferred to PPD.[12]

21.   **Cofinancier requirements.** ADB will prepare the following reports: (i) a TA completion report, filed within a year after project completion using ADB's format; and (ii) semiannual project status reports. If requested by the Government of the Republic of Korea, ADB will facilitate visits by government personnel and/or designated personnel as observers to projects financed by EAKPF. The government may ask the TA supervision unit for detailed information on the status of projects supported by the EAKPF (including consultant reports) or arrange a special mission as part of monitoring and evaluation of EAKPF-funded operations.

IV.   THE PRESIDENT'S DECISION

22.   The President, acting under the authority delegated by the Board, has approved (i) the Asian Development Bank (ADB) administering a portion of technical assistance not exceeding the equivalent of $500,000 to be financed on a grant basis by the Republic of Korea e-Asia and Knowledge Partnership Fund and (ii) ADB providing the balance not exceeding the equivalent of $500,000 on a grant basis to the Government of the Kyrgyz Republic for Supporting the Completion of e-Procurement System Digitalization (Phase 1), and hereby reports this action to the Board.

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[12] Procurement Plan (accessible from the list of linked documents in Appendix 3).

DESIGN AND MONITORING FRAMEWORK

Impact the TA is Aligned with
Improvement of public procurement administration in the Kyrgyz Republic through greater use of ICT[a]

Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
Outcome			
Improved functionality of e-GP	By 2025, about 80% of procurement transactions performed online (2021 baseline: about 40% of procurement transactions online—only from planning to bid opening) (OP 6.1.2; OP 6.1.4; OP 6.2.1)	e-GP: http://zakupki.gov.kg/	A: Change of executing agency priorities may delay project implementation R: Complexity of software may delay development and implementation
Outputs			
1. New e-GP modules developed and existing modules enhanced	1a. By 2025, new modules developed, tested, and commissioned to service covering functions such as: – data exchange with other government entities – bid evaluation – bid and contract security submission (2021 baseline: 0) (OP 6.1.4; OP 6.2.1) 1b. By 2023, existing modules enhanced (2021 baseline: 0) (OP 6.1.2; OP 6.2.1)	1a. System generated data (e-GP) 1b. System generated data (e-GP)	A: Lack of executing agency support, which may delay implementation R: New software may be complex and take longer to develop
2. IT audit performed	2. By 2025, IT audit performed, and recommendations developed and implemented (2021 baseline: 0) (OP 6.1.4)	2. Certificate of successful IT audit, confirming security of e-GP	R: Implementation of IT audit recommendations may require more efforts and/or inputs than expected
3. Equipment for data management purchased	3. By 2025, new servers and ancillary equipment purchased (2021 baseline: 0) (OP 6.2.1)	3. Executing agency final certificate of acceptance for equipment purchased	R: Price and/or currency volatility may increase planned budget

Key Activities with Milestones

1. New e-GP modules developed and existing modules enhanced

1.1 Recruit individual international and national experts (December 2021)

1.2 Develop TOR and requirements for software developing consulting firm (January 2022)

1.3 Select consulting firms (QCBS 90:10, FTP) and award the contract (March 2022)

1.4 Contract management and monitoring of consultants' work (July 2025)

1.5 Transfer developed software to PPD and start its operation (August 2025)

2. IT audit performed

2.1 Develop TOR and requirements for IT audit firm (December 2021)

2.2 Select consulting firms (QCBS 90:10, STP) and award the contract (July 2022)

2.3 Contract management and monitoring of consultant's work (May 2024)

2.4 Obtain certificate of IT audit (July 2024)

3. Equipment for data management purchased

3.1 Develop technical specifications for equipment (1. OCB with national advertisement: January 2022; 2. RFQ: May 2024).

3.2 Conduct procurement and award the contract (1. OCB: July 2022; 2. RFQ: August 2024)

3.3 Supply, install, and commission equipment (1. OCB: September 2022; 2. RFQ: October 2024)

TA Management Activities

Recruit individual consultants and firms (by February 2022)

Monitor and manage consultants' performance through review of completed tasks, quality of outputs, and review and approval of timesheets and expenses (October 2025)

Manage contracts for consulting services in cooperation with PPD (October 2025).

Conduct annual TA review to monitor utilization of TA funds and progress on TA performance indicators, and to assess consultants' performance.

Inputs

ADB (TASF 7): $500,000

EAKPF: $500,000

Note: The government will provide counterpart support in the form of counterpart staff, site access (software and hardware), office accommodation, event facilities, and other in-kind contributions.

ADB = Asian Development Bank, DMF = design and monitoring framework, EAKPF = Republic of Korea e-Asia and Knowledge Partnership Fund, e-GP = government e-procurement portal, FTP = full technical proposal, ICT = information and communication technology, IT = information technology, OCB = open competitive bidding, OP = operational priority, PPD = Public Procurement Department (Ministry of Economy), QCBS = quality- and cost-based selection, RFQ = request for proposals, TA = technical assistance, TOR = terms of reference.
[a] ADB. 2018. *Strategy 2030: Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific*. Manila.
Contribution to Strategy 2030 Operational Priorities:
The expected values and methodological details for all OP indicators to which this TA will contribute results are detailed in Contribution to Strategy 2030 Operational Priorities (accessible from the list of linked documents in Appendix 3).
Source: Asian Development Bank.

COST ESTIMATES AND FINANCING PLAN
($'000)

Item	Amount
A. Asian Development Bank[a]	
1. Consultants	
a. Remuneration and per diem	
i. International consultants	38.0
ii. National consultants	224.3
b. Out-of-pocket expenditures	
i. International and local travel	4.2
ii. Reports and communications	0.5
2. Equipment (purchase)[b]	200.0
3. Trainings, seminars, and conferences[c]	8.0
4. Contingencies	25.0
Subtotal (A)	**500.0**
B. Republic of Korea e-Asia and Knowledge Partnership Fund[d]	
1. Consultants	
c. Remuneration and per diem	
i. International consultants	184.0
ii. National consultants	269.5
d. Out-of-pocket expenditures	
i. International and local travel	13.0
ii. Reports and communications	0.5
2. Trainings, seminars, and conferences[c]	8.0
3. Contingencies	25.0
Subtotal (B)	**500.0**
Total (A+B)	**1,000.0**

ADB = Asian Development Bank, EAKPF = Republic of Korea e-Asia and Knowledge Partnership Fund
Note: The TA is estimated to cost $1,000,000, of which contributions from ADB and EAKPF are presented in the table. The government will provide counterpart support in the form of counterpart staff, office accommodation for consultants, Internet connection, access to e-GP software and hardware, information and documents relevant to TA implementation, and other in-kind contributions. The value of the government contribution is estimated to account for 1.04% of the total TA cost.
[a] Financed by the Asian Development Bank's Technical Assistance Special Fund (TASF 7).
[b] IT equipment: servers and ancillary equipment. Upon completion of this TA all equipment will be transferred to the IA. EAKPF does not finance the purchase of equipment, this will be 100% financed from ADB's share. All other financing and disbursements will be prorated at a ratio of ADB: 37.5/EAKPF: 62.5
[c] Upon development of new software and before operation starts, trainings for government users will be needed in every region and capital city (7+1). This item provides for venue rental and associated expenses.
[d] Financed by EAKPF and administered by ADB.
Source: Asian Development Bank estimates.

LIST OF LINKED DOCUMENTS
http://www.adb.org/Documents/LinkedDocs/?id=55109-001-TAReport

1.   Terms of Reference for Consultants
2.   Contribution to Strategy 2030 Operational Priorities
3.   Procurement Plan
4.   Procurement Risk Assessment and Management Plan