Project Administration Manual

Project Number: 55131-001
Loan and Grant Numbers: LXXXX; GXXXX
August 2022

Kyrgyz Republic: Strengthening Regional Health Security Project

ABBREVIATIONS

ABEC	–	Almaty–Bishkek Economic Corridor
ADB	–	Asian Development Bank
AMR	–	antimicrobial resistance
BLBH	–	Better Labs for Better Health
CAREC	–	Central Asia Regional Economic Cooperation
CCP	–	Construction Code of Practice
CDL	–	Clinical Diagnostic Laboratory
CLC	–	Coordination Laboratory Council
COVID-19	–	coronavirus disease
CQI	–	continuous quality improvement
CSC	–	Construction Supervision Company
EQA	–	External Quality Assessment
e-SPAR	–	electronic State Parties Self-Assessment Annual Reporting
FFM	–	financial management manual
GAP	–	gender action plan
GMPC	–	General Medical Practice Center
IAU	–	Internal Audit Unit
ICU	–	Intensive Care Unit
ICT	–	information and communications technology
IHR	–	International Health Regulations
ILAC	–	International Laboratory Accreditation Cooperation
ILC	–	Interlaboratory Comparison
ISO	–	International Organization for Standardization
JEE	–	Joint External Evaluation
KCA	–	Kyrgyz Center for Accreditation
KSMI	–	Kyrgyz State Medical Institute for Retraining and Advanced Training
LAT	–	Laboratory Assessment Tool
LIMS	–	laboratory information management system
MHIF	–	Mandatory Health Insurance Fund
MOF	–	Ministry of Finance
MOH	–	Ministry of Health
PFM	–	public financial management
PI	–	performance indicator
PIU	–	project implementation unit
RHS	–	regional health security
SOE	–	statement of expenditure
SSES	–	State Sanitary and Epidemiological Surveillance
TAT	–	turnaround time
WHO	–	World Health Organization

CONTENTS

Project Administration Manual Purpose and Process

The project administration manual (PAM) describes the essential administrative and management requirements to implement the project on time, within budget, and in accordance with the policies and procedures of the government and Asian Development Bank (ADB). The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

The Ministry of Health is wholly responsible for the implementation of ADB-financed projects, as agreed jointly between the borrower and ADB, and in accordance with the policies and procedures of the government and ADB. ADB staff is responsible for supporting implementation including compliance by the Ministry of Health of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

At loan negotiations, the borrower and ADB shall agree to the PAM and ensure consistency with the loan and grant agreement. Such agreement shall be reflected in the minutes of the loan negotiations. In the event of any discrepancy or contradiction between the PAM and the loan and grant agreement, the provisions of the loan and grant agreement shall prevail.

After ADB Board approval of the project's report and recommendations of the President (RRP), changes in implementation arrangements are subject to agreement and approval pursuant to relevant government and ADB administrative procedures (including the Project Administration Instructions) and upon such approval, they will be subsequently incorporated in the PAM.

I. PROJECT DESCRIPTION

1. The proposed project follows the Asian Development Bank's (ADB's) COVID-19 emergency assistance and vaccine projects in the Kyrgyz Republic and ongoing regional support.[1] It will be part of a continuum of support to health sector building on good relations and policy dialogue built over the years. It contributes to regional health security (RHS) by improving health sector resilience to outbreaks of emerging and re-emerging infectious diseases in the country. The project addresses critical bottlenecks in RHS and the country's International Health Regulations (IHR) compliance, namely diagnostic capacities and regional linkages of laboratories, and hospitals in busy border zones.

2. The project is aligned with the following impact: improved public health and regional health security in the Kyrgyz Republic.[2] The project outcome is enhanced coverage of effective laboratory and border hospital services in Chui and Osh oblasts. The project outputs are as follows, and the description of project components, project facilities and laboratory master plan are in Appendix 1.

3. **Output 1: Capacity, quality, and networking of reference laboratories in Bishkek and Osh cities strengthened.** The output will upgrade and strengthen the capacities of State Sanitary and Epidemiological Surveillance (SSES) and clinical diagnostic reference laboratories in Bishkek and Osh cities as apex institutions with advanced referral diagnostics, internal quality assurance and biosafety, skills training facilities, and technical support for external quality assurance and licensing, based on international best practices and standards, with linkages to global and regional laboratories and resource institutions such as WHO-led Better Labs for Better Health (BLBH) initiative.

4. **Output 2: Laboratory services based on continuous quality improvement in Chui and Osh oblasts (including Bishkek and Osh cities) developed.** The output will develop cohesive networks of SSES and clinical diagnostic laboratory services in Chui and Osh oblasts (including Bishkek and Osh cities) with restructuring, upgrading, and continuous quality improvement. This will include: (i) strengthening governance capacity for the national laboratory system including regulation, standards, planning, financing, management, monitoring, and studies for innovative solutions; (ii) developing a laboratory system and financing plan for Chui and Osh laboratory systems with all stakeholders including support systems such as supplies and maintenance; (iii) upgrading or adapting and equipping laboratories based on modern quality and biosafety standards; (iv) networking SESS and clinical diagnostic laboratories in Chui and Osh oblasts internally and with patient care and cross-border services using digital and physical communication systems; and (v) developing a continuous quality improvement program for all laboratories in Chui and Osh oblasts including training module development and skills training.

5. **Output 3: Patient care and biosafety capacity in hospitals in border area and high travel zones in Chui and Osh oblasts improved.** The output will upgrade and strengthen the capacities of hospitals with referral laboratories for preparedness, prevention and control, screening, and case management of infectious diseases in border areas and high travel zones in

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[1] ADB. Kyrgyz Republic: COVID-19 Active Response and Expenditure Support Program; ADB. Kyrgyz Republic: COVID-19 Pandemic Emergency Project; ADB. Kyrgyz Republic: COVID-19 Vaccine Support Project under the Asia Pacific Vaccine Access Facility; and ADB. 2017. Regional: Almaty–Bishkek Economic Corridor Support..

[2] Kyrgyz Republic. 2019. *Joint Order on the Implementation of the Action Plan for the Implementation of the International Health Regulations (2005) in the Kyrgyz Republic for 2020-2022.* Bishkek; Kyrgyz Republic. 2019. The Program of the Kyrgyz Republic Government on Public Health Protection and Health Care System Development for 2019–2030 "Healthy Person–Prosperous Country"; and ADB. 2021. *CAREC Health Strategy 2030*. Manila.

Chui and Osh oblasts. This will include upgrading and equipping facilities, staff training, and cross-border coordination for information exchange and outbreak prevention and control.

II. IMPLEMENTATION PLANS

A. Project Readiness Activities[3]

Table 1: Project Readiness Activities, Responsibilities, and Estimated Timeframe

	Indicative Activities	Month in 2021-2022													
		12	1	2	3	4	5	6	7	8	9	10	11	12	Responsible Unit/Agency/ Government
1	Establish project implementation arrangements														MOH
	Establish PIU	X													MOH
	Establish PC	X						X	X						MOH
	Establish PSC								X						MOH
2	Advance contracting actions (equipment)				X	X	X	X	X	X					PIU, PC, and MOH
	a. G-03: Imaging equipment (OCB international)						X	X	X	X	X				PIU, PC, and MOH
	b. G-04: Hospital equipment essential (OCB international)						X	X	X	X	X				PIU, PC, and MOH
	c. G-02: Cytology (OCB international)						X	X	X	X	X				PIU, PC, and MOH
	d. G-01: Laboratory equipment & reagent (OCB international)						X	X	X	X	X				PIU, PC, and MOH
3	Government Fiscal and Investment Council consideration								X						MOF and MOH
4	ADB Board consideration										X				ADB
5	Loan and grant signing											X			ADB, MOF and MOH
6	Government ratification												X		MOF and MOH
7	Loan and grant effectiveness												X		ADB, MOF and MOH

ADB = Asian Development Bank, MOF = Ministry of Finance, MOH = Ministry of Health, PC = Procurement Committee, PIU = Project Implementation Unit, PSC = Project Steering Committee.
Source: Asian Development Bank.
Note: MOH will oversee advance contracting actions, and PIU will submit procurement forms and/or draft bidding documents to ADB. MOH formulates various procurement committees based on the works, goods, or services to be procured. Bid documents for four priority packages under advance procurement action have been prepared, and the MOH plans to issue invitations for bids before circulation of the ADB President's report and recommendation to the ADB Board of Directors.

[3] ADB. 2021. TA-6818: Support to Strengthening Regional Health Security Project will continue supporting start-up activities.

B. Overall Project Implementation Plan

6. The project will be implemented from 1 October 2022 to 30 September 2027. The loan and grant closing date is 31 March 2028. Table 2 presents the Gantt chart recording outputs with key implementation activities (on a quarterly basis) that is updated annually and submitted to ADB with contract and disbursement projections for the following year.

Table 2: Project Implementation Plan

	Activities	Advance Actions 2022				Year 1 2023				Year 2 2024				Year 3 2025				Year 4 2026				Year 5 2027				Year 6 2028			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	A. DMF																												
1	**Output 1: Capacity, quality, and networking of reference laboratories in Bishkek and Osh cities strengthened**																												
1.1	Promote formal recognition of selected laboratories as reference laboratories, identify reference functions, develop operational plans, and provide support to reference laboratories in carry out these functions.																												
1.2	Prepare with the reference laboratories budgets for their reference functions.																												
1.3	Establish mentoring program for 4 project reference laboratories and 2 other labs previously supported by WHO, agree on monitoring checklists and mentoring plan, and provide mentoring in preparation for accreditation to international standards (project reference labs to apply for ISO accreditation within 36 months from Effective Date) .																												
1.4	Select a universal tool to monitor performance of the mentored laboratories within the project and collect and analyze the data annually.																												
1.5	Support national reference laboratories during the first runs of carrying out their functions for lower-level laboratories																												
1.6	Upgrade laboratory infrastructure, laboratory equipment, and teaching facilities.																												
1.7	**Regional collaboration activities:**																												
1.7.1	ABEC: conduct activities on the Kyrgyz side for the National AMR Reference Laboratory, including standardization of approaches and methods for validation of reference																												

	Activities	Advance Actions 2022				Year 1 2023				Year 2 2024				Year 3 2025				Year 4 2026				Year 5 2027				Year 6 2028			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	diagnostics of antimicrobial resistance with Bacteriology SSES lab, Bishkek (AMR testing) – national reference lab, in year-4 and 5.																												
1.7.2	CAREC: Organize regional conference/webinar, assessment on national laboratory system (LAT national module, e-SPAR and JEE)																												
2	**Output 2: Laboratory services based on continuous quality improvement in Chui and Osh oblasts (including Bishkek and Osh cities) developed**																												
2.1	**Strengthen governance capacity for the national laboratory system including regulation, standards, planning, financing, management, monitoring, and studies for innovative solutions.**																												
2.1.1	National quality and safety standards:																												
2.1.1a	Conduct assessment of current quality and (bio)safety standards and norms governing laboratories and mechanisms of control of compliance.																												
2.1.1b	Conduct research and consultations with CLC, representatives of MOH, KCA, WHO on optimal way to develop and implement laboratory standards.																												
2.1.1c	Update draft standards (national quality and safety standards for laboratories), legislation and their implementation plan with involvement of stakeholders.																												
2.1.2	Circulate drafts among stakeholders, collect and incorporate feedback, develop final proposal of norms and legislation.																												
2.1.3	Provide advocacy and support to respective government agencies and other stakeholders in adopting the standards and legislation (within 24 months from Effective Date).																												
2.1.4	Identify in consultations with stakeholders what support KCA needs to become full ILAC member for ISO 15189 and develop plan for these support activities (e. g. training of experts, training audits); perform support																												

	Activities	Advance Actions 2022				Year 1 2023				Year 2 2024				Year 3 2025				Year 4 2026				Year 5 2027				Year 6 2028			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	activities for KCA to become full ILAC member.																												
2.1.5	Select national mentors for all other labs in preparation for accreditation to national standards.																												
2.1.6	Review baseline LAT assessment of individual laboratories and compile a list of informative and actionable PI.																												
2.1.7	Pilot PIs chosen for each type and level of laboratory in the Project laboratories.																												
2.1.8	Carry out preparatory work and implement innovative solutions pilot:																												
a	Optimizing bacteriology testing																												
b	Outsourcing selected tests																												
c	Outsourcing specimen transportation																												
2.2	**Develop a cohesive laboratory system and financing plan for the Chui and Osh laboratory system with stakeholders including support systems such as supplies and maintenance.**																												
2.2.1	Approve and adopt the national Laboratory Optimization Master plan 2023-2030 (within 12 month from Effective date)																												
2.2.2	Establish a small (4-5 members) Costing Working Group – represented by CDL and SSES lab expert members of CLC																												
2.2.3	Based on the Chui and Osh Optimization Master Plan, agree on a list of tests to be included in the costing exercise.																												
2.2.4	Together with MHIF, determine costing methodology based WHO costing tools adapted to the needs.																												
2.2.5	Present and get approval of MHIF and MOH on costing methodology and outcome (cost of test).																												
2.2.6	Propose updated reimbursement mechanism reflecting calculated costs to MHIF.																												
2.2.7	Propose updated benefit package (selected tests).																												

	Activities	Advance Actions 2022				Year 1 2023				Year 2 2024				Year 3 2025				Year 4 2026				Year 5 2027				Year 6 2028			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
2.2.8	Support labs to prepare budgets, update payment system, monitor expenditure and utilization (sustainability measures).																												
2.3	**Upgrade and equip laboratories as per plan based on modern quality and biosafety standards.**																												
2.3.1	Civil work/renovation:																												
a	Prepare description of civil work and finalize tender documentation.																												
b	Conduct tendering of civil work packages and contract award.																												
c	Monitor progress and compliance with environmental and social safeguards.																												
d	Verify payment and as-built.																												
2.3.2	Laboratory equipment upgrading:																												
a	Define tender packages and finalize tender documents.																												
b	Manage tendering process, tender evaluation and contract award.																												
c	Monitor delivery, installation, technical training and handing over.																												
d	Monitor execution of warranty and post-warranty maintenance services.																												
2.4	**Network SESS and clinical diagnostic laboratories in Chui and Osh oblasts internally and with patient care and cross-border services using digital and physical communication systems.**																												
2.4.1	Prepare tender document for IT hardware and TOR																												
2.4.2	Define development/customization requirements - type of tests to be reported digitally, PIs to be generated from LIMS and use of PIs, cross-border information sharing, etc.																												
2.4.3	Prepare LIMS implementation plan and operational guidelines																												
2.4.4	Software development/customization and interface with lab equipment																												

	Activities	Advance Actions 2022				Year 1 2023				Year 2 2024				Year 3 2025				Year 4 2026				Year 5 2027				Year 6 2028			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
2.4.5	Prepare and conduct user training including basic computer skill																												
2.4.6	Conduct user acceptance testing and go-live																												
2.4.7	Monitor post-live performance																												
2.5	**Develop a CQI program for the Chui and Osh laboratory services including strengthening human resources for health.**																												
2.5.1	Review existing postgraduate training curricula for laboratorians of different levels in both branches of KSMI, including waste management.																												
2.5.2	Develop needed curricula taking into account new topics (new methods, equipment, etc.), beginner and advanced courses, number of laboratory personnel in the country, capacity of teaching laboratories and teachers' capacity, financial sustainability and geographical access.																												
2.5.3	Identify teaching personnel, survey their needs in education and conduct training workshops and on-job training for core teaching staff in both branches of KSMI.																												
2.5.4	Assemble working groups for respective disciplines and manage developing of needed courses.																												
2.5.5	Provide support during the first runs of the new courses in the renovated facilities.																												
2.5.6	Research needs and possibilities, select candidates and organize for them relevant studies abroad supported by the Project scholarships																												
2.5.7	Research the possibilities and select and organize twinning programs for two reference laboratories																												
3	**Output 3: Patient care and biosafety capacity in hospitals in border area and high travel zones in Chui and Osh oblasts improved**																												
3.1	Civil work/renovation:																												
a	Prepare description of civil work and finalize tender documentation for civil work.																												

	Activities	Advance Actions 2022				Year 1 2023				Year 2 2024				Year 3 2025				Year 4 2026				Year 5 2027				Year 6 2028			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
b	Conduct tendering of civil work packages and contract award.																												
c	Monitor progress and compliance with environmental and social safeguards.																												
d	Verify payment and as-built.																												
3.2	Medical equipment upgrading:																												
a	Define tender packages and finalize tender documents.																												
b	Manage tendering process, tender evaluation, and contract award.																												
c	Monitor delivery, installation, technical training and handing over.																												
d	Monitor execution of warranty and post-warranty maintenance services.																												
3.3	Provide training related to infection prevention and control.																												
	B. Management Activities																												
	Establish PIU																												
	Recruit key PIU staff (PIU Manager, Procurement Specialist, and Finance Officer)																												
	Recruit remaining PIU staff																												
	Initiate advertisement and award consultant for baseline and endline survey																												
	Initiate advertisement and award consultant for construction supervision company																												
	Initiate advertisement and award consultants for LIMS and CQI																												
	Initiate advertisement and award consultant for preparation of service contracts: Rationalization of Bacteriology test, Outsourcing of special CDL lab test Bishkek, and Sample collection transport																												
	Initiate advertisement and award consultant for auditing																												

	Activities	Advance Actions 2022				Year 1 2023				Year 2 2024				Year 3 2025				Year 4 2026				Year 5 2027				Year 6 2028			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	Initiate advertisement and award equipment packages (office, lab, medical, ICT)																												
	Initiate advertisement and award civil work contractors																												
	Implementation of civil works contracts																												
	Environment Management Plan key activities																												
	Gender Action Plan key activities																												
	Continuous monitoring and reporting on project activities (Quarterly)																												
	Annual and Midterm review (semiannual ADB review missions)																												
	Government Project Completion Report																												
	ADB Project Completion Report Mission																												

ABEC = Almaty-Bishkek Economic Corridor, AMR = antimicrobial resistance, CDL = clinical diagnostic laboratory, CLC = Coordination Laboratory Council, CQI = continuous quality improvement, e-SPAR = electronic State Parties Self-Assessment Annual Reporting Tool, KCA = Kyrgyz Center for Accreditation, KSMI = Kyrgyz State Medical Institute for Retraining and Advanced Training, DMF = design and monitoring framework, JEE = joint external evaluation, ILAC = International Laboratory Accreditation Cooperation, ISO = International Organization for Standardization, ICT = information and communication technology, IT = information technology, LAT = Laboratory Assessment Tool, LIMS = laboratory information management system, MHIF = Mandatory Health Insurance Fund, MOH = Ministry of Health, PI = performance indicator, PIU = project implementation unit, Q = quarter, SSES = State Sanitary and Epidemiological Surveillance, TOR = terms of reference, WHO = World Health Organization.

Source: Asian Development Bank.

III. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Implementation Organizations: Roles and Responsibilities

7. The project implementation organization are summarized in Table 3. MOH will be the executing agency (EA) of the project and will be responsible for overall strategic planning, guidance, and management of the project, and ensuring compliance with the loan and grant covenants. A project implementation unit (PIU) established within the MOH supports planning, implementation, monitoring and supervision, and coordination of all activities under the project.

8. **Project steering committee.** The project steering committee (PSC) will be the MOH high-level committee, which will monitor and supervise the program. The PSC comprises the Deputy Minister, MOH (chair), PIU Manager (secretary), director of the SSES, director of the Department of Laboratory Services, director general of Department of Medical Services, director of the Department of Organization of Medical Care and Public Health, director of the E-Health Center (which is also involved in cross-border information sharing), head of Strategic Planning and Program Implementation Department and director of the MHIF, representative of the CLC, representatives of the Ministry of Finance and the Ministry of Economy, and representatives from project laboratories and project hospitals. Other officials may be invited as and when needed. The PSC will meet every 3 months to carry out the functions listed in Table 3.

Table 3: Project Implementation Organizations and Roles and Responsibilities

Project Implementation Organizations	Management Roles and Responsibilities
Executing agency (MOH)	Project Director, representing MOH, provides: • Overall strategic planning, guidance, and management of the project, including for ensuring compliance with the loan and grant covenants. • Formulates various procurement committees based on the works, goods, or services to be procured. • Final government approver for the bidding documents and contract awards.
Project Steering Committee	Project Steering Committee established in the project led by MOH with participation from CLC, SSES, Department of Laboratory Services, Department of Organization of Medical Care and Public Health, E-Health Center, Strategic Planning and Program Implementation Department, MHIF, MOF, MOE, representatives of project laboratories and project hospitals, and other key bodies will oversee project implementation: • Meet quarterly, or as and when necessary, to review implementation progress and resolve constraints related to implementation; • Make key policy-level decisions to facilitate project implementation; and • Provide necessary support to the PIU to ensure smooth project implementation.
PIU established in the MOH	PIU, headed by a Project Director and managed by a PIU Manager, will be established in MOH to provide the required technical, administrative, and logistical support for project implementation. The PIU will coordinate and manage the overall project: • Plan, manage, and implement project activities on a day-to-day basis;

	• Act as the point of contact with ADB on project implementation matters; • Ensure and monitor compliance of loan and grant covenants, including safeguards; • Open the advance accounts for the project; • Manage and be accountable for the project advance accounts; • Submit progress reports, withdrawal applications, statements of expenditures, and other project-related information in a timely manner to ADB and MOH; • Supervise consultancy contracts; and • Submit audited project financial statements to ADB no later than 6 months after the close of each fiscal year.
Representatives of project laboratories and project hospitals	The representatives of project facilities, will: • Facilitate PIU in implementation of project activities; and • Facilitate interaction with local institutions or authorities if necessary.
ADB	As the funding agency, ADB will: • Provide project funds and oversee project implementation; • Monitor compliance with loan and grant agreements and the project administration manual; • Monitor implementation of the agreed project implementation arrangements, including compliance with the agreed disbursement, procurement, consultant selection, and reporting arrangements; • Monitor schedules of activities, including funds flow; • Review compliance with agreed procurement procedures and loan and grant covenants; • Monitor effectiveness of the project to achieve its expected outputs and outcomes, safeguards, and anticorruption measures; • Approve procurement activities at no-objection basis and withdrawal applications; and • Undertake periodic review missions (at least twice a year), joint midterm and project completion review missions with the government.

ADB = Asian Development Bank, CLC = Coordination Laboratory Council, MHIF = Mandatory Health Insurance Fund, MOF = Ministry of Finance, MOE = Ministry of Economy, MOH = Ministry of Health, PIU = Project Implementation Unit, SSES = State Sanitary and Epidemiological Surveillance.
Source: Asian Development Bank.

B. Key Persons Involved in Implementation

9. The executing agency's project director and alternate project director, and ADB's division director and project team leader are presented below.

Executing Agency

Ministry of Health

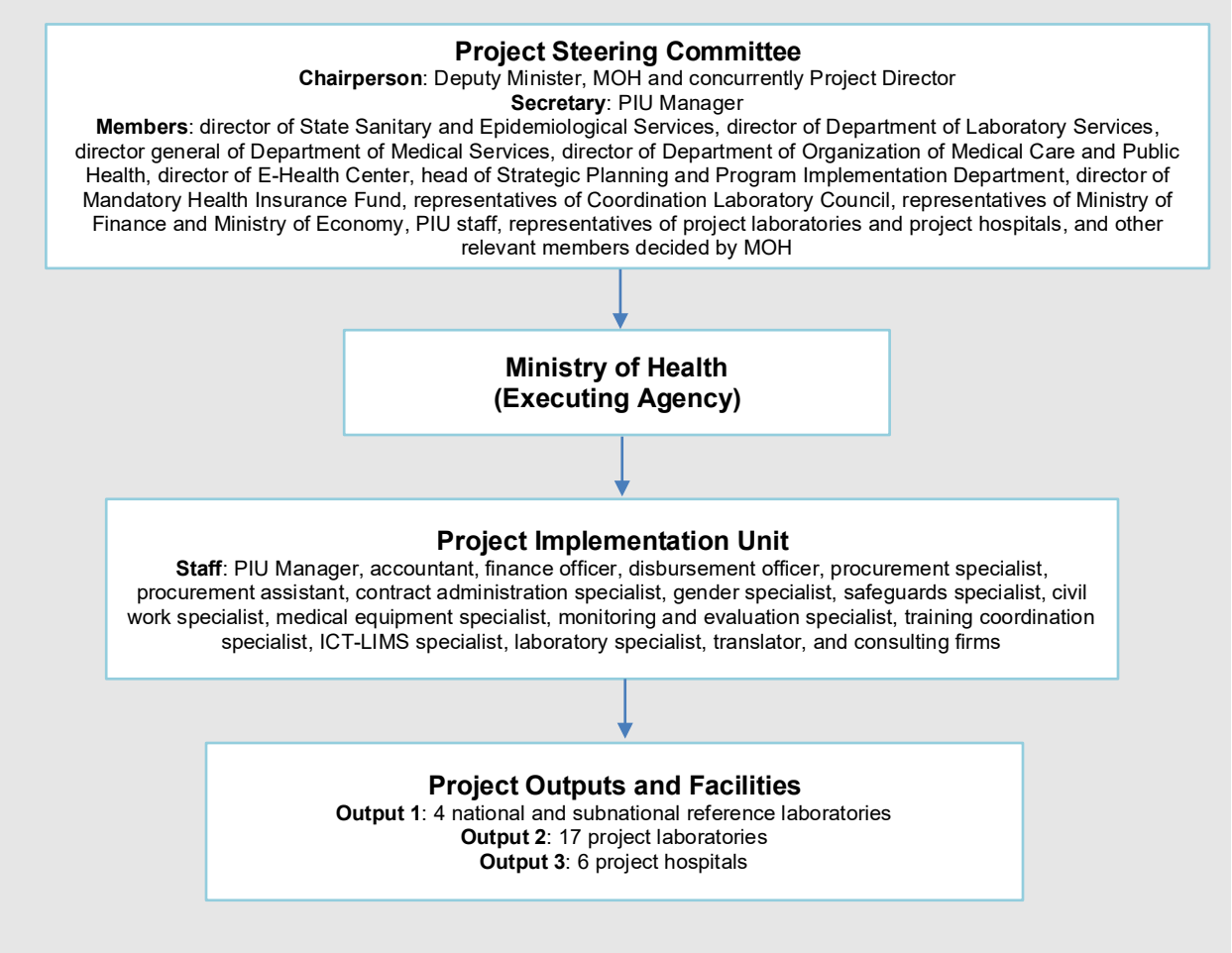
Mr. Jarkynbek Kasymbekov
Deputy Minister (currently Acting Minister)
Ministry of Health
148 Moskovskaya Street
Bishkek, Kyrgyz Republic 720040
Telephone: + 996 312 662614 (office)
E-mail address: mz@med.kg

	Mr. Ulan Sadykov Deputy Minister Ministry of Health 148 Moskovskaya Street Bishkek, Kyrgyz Republic 720040 Telephone: + 996 312 662614 (office) E-mail address: mz@med.kg
Asian Development Bank	
Division Director	Ms. Rie Hiraoka Director, Social Sector Division Central and West Asia Department Telephone No.: (63 2) 8632-4444 E-mail address: rhiraoka@adb.org
Project Team Leader	Mr. Brian Chin Senior Health Specialist Central and West Asia Department Telephone No.: (63 2) 8632-4444 E-mail address: bchin@adb.org

C. Project Organization Structure

10. The chart below shows the reporting lines and essential internal structures of key organizations involved in implementation (including project implementation unit).

Figure 1: Project Organization Structure



IV. COSTS AND FINANCING

11. The project is estimated to cost $35 million, inclusive of taxes and duties, physical and price contingencies, interest, and other charges during implementation (Table 4).

Table 4: Summary Cost Estimates
($ million)

Item	Amount[a]
A. Base Cost[b]	
Output 1. Capacity, quality, and networking of reference laboratories in Bishkek and Osh cities strengthened	15.27
Output 2. Laboratory services based on continuous quality improvement in Chui and Osh oblasts (including Bishkek and Osh cities) developed	11.07
Output 3. Patient care and biosafety capacity in hospitals in border area and high travel zones in Chui and Osh oblasts improved	5.05
Subtotal (A)	**31.39**
B. Contingencies[c]	**3.31**
C. Financing Charges During Implementation[d]	**0.30**
Total (A+B+C)	**35.00**

[a] Includes taxes and duties of $4.71 million. Such amount does not represent an excessive share of the project cost. The government will finance taxes and duties of $3.56 million, which will be covered by the government through exemptions. The government will also provide in-kind project administration support.
[b] In June 2022 prices.
[c] Physical contingencies computed at 5% for all cost categories. Price contingencies, which are calculated based on escalation rates for domestic and international costs estimated for the Kyrgyz Republic, include provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate. The annual escalation rate for international costs is estimated at 1.7% for each year from 2022 to 2023 and 1.8% per year from 2023 onward. The annual escalation rate for domestic costs is estimated at 15% for 2022, 12% for 2023, 7% for 2024, and 5% from 2025 to 2027.
[d] Interest rate for ADB's concessional project loans from ordinary capital resources for Group A countries is 1% per year during grace period and 1.5% per year thereafter. There are no commitment or other charges on all sources of financing.
Source: Asian Development Bank and the Government of the Kyrgyz Republic.

12. The summary project financing plan is in Table 5. ADB will finance a total of $30 million, comprising a grant of $20 million from ADB's Special Funds resources (Asian Development Fund), and a concessional loan of $10 million from ADB's ordinary capital resources. The government will provide counterpart funds totaling $5 million equivalent. The loan will have a term of 32 years including a grace period of 8 years, interest rate of 1% per year during grace period and 1.5% per year thereafter; and such other terms and conditions set forth in the draft loan agreement.

13. ADB loan will finance the expenditures for goods and civil works, and a portion of taxes and duties of approximately $1.15 million, while the ADB grant will finance goods, consulting services, and nonconsulting services as described in the detailed cost tables below. The government has assured ADB that it will meet any financing shortfall to ensure project outputs are fully implemented.

Table 5: Summary Financing Plan

Source	Amount ($ million)	Share of total (%)
Asian Development Bank		
Special Funds resources (ADF 13 Thematic Pool)	20.0	57.1
Ordinary capital resources (concessional loan)	10.0	28.6
Government of the Kyrgyz Republic	5.0	14.3
Total	**35.0**	**100.0**

ADF = Asian Development Fund.
Source: Asian Development Bank and the Government of the Kyrgyz Republic.

A. Cost Estimates Preparation and Revisions

14. The cost estimates have been prepared based on inputs received from the MOH and other government departments.

B. Key Assumptions

15. The following key assumptions underpin the cost estimates and financing plan:

(i) Exchange rate: Som81.11 = $1.00 (as of 3 June 2022).
(ii) Price contingencies based on expected cumulative inflation over the implementation period are as follows:

Table 6: Escalation Rates for Price Contingency Calculation

Item	2022	2023	2024	2025	2026	2027	Average
Foreign rate of price inflation	1.7%	1.7%	1.8%	1.8%	1.8%	1.8%	1.8%
Domestic rate of price inflation	15.0%	12.0%	7.0%	5.0%	5.0%	5.0%	5.3%

Source: Asian Development Bank estimates.

(iii) In-kind contributions were calculated using market rates and by applying Kyrgyz Republic's tax and duty rate to the cost items qualified for exemption.

C. Detailed Cost Estimates by Expenditure Category

Table 7: Detailed Cost Estimates by Expenditure Category

Item		($ million)			
		Foreign	**Local**	**Total Cost[a]**	**% of Total Base Cost[a]**
A.	**Investment Costs[b]**				
	1. Consulting Services	0.92	2.41	3.33	10.6%
	a. International	0.92	-	0.92	2.9%
	b. National	-	2.41	2.41	7.7%
	2. Civil Works	-	3.66	3.66	11.7%
	3. Goods and Equipment	21.84	-	21.84	69.6%
	a. Laboratory equipment	18.00	-	18.00	57.3%
	b. Hospital equipment	3.37	-	3.37	10.7%
	c. ICT equipment	0.48	-	0.48	1.5%
	4. Nonconsulting Services	0.42	1.20	1.62	5.2%
	a. Optimizing services	0.34	-	0.34	1.1%
	b. Outsourcing of services	-	1.01	1.01	3.2%
	c. Twinning and scholarship	0.08	0.20	0.28	0.9%
B.	**Recurrent Costs**				
	Incremental project administration	-	0.93	0.93	2.9%
	Subtotal (B)	**-**	**0.93**	**0.93**	**2.9%**
	Total Base Cost	**23.19**	**8.20**	**31.38**	**100.0%**
C.	**Contingencies[c]**				
	1. Physical	1.16	0.41	1.57	5.0%
	2. Price	1.17	0.58	1.75	5.6%
	Subtotal (C)	**2.33**	**0.99**	**3.32**	**10.6%**
D.	**Financing charges during project implementation[d]**	**-**	**-**	**-**	
	Interest during implementation	-	0.30	0.30	0.9%
	Subtotal (D)		0.30	0.30	0.9%
Total Project Cost (A+B+C+D)		**25.51**	**9.48**	**35.00**	**111.5%**

Notes: Numbers may not sum precisely because of rounding.

[a] Includes taxes and duties of $4.71 million, of which $3.56 million will be covered by the government through exemptions from taxes and duties. The government will also provide in-kind project administration support.

[b] In June 2022 prices.

[c] Physical contingencies computed at 5% for all cost categories. Price contingencies, which are calculated based on escalation rates for domestic and international costs estimated for the Kyrgyz Republic, include provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate. The annual escalation rate for international costs is estimated at 1.7% for each year from 2022 to 2023 and 1.8% per year from 2023 onward. The annual escalation rate for domestic costs is estimated at 15% for 2022, 12% for 2023, 7% for 2024, and 5% from 2025 to 2027.

[d] Interest rate for ADB's concessional project loans from ordinary capital resources for Group A countries is 1% per year during the grace period and 1.5% per year thereafter. There are no commitment or other charges on all sources of financing.

Source: Asian Development Bank estimates.

D. Allocation and Withdrawal of Loan and Grant Proceeds

Table 8: Allocation and Withdrawal of Loan Proceeds

Number	Item	Total Amount Allocated for ADB Loan Financing ($)		Basis for Withdrawal from the Loan Account
		Category	Subcategory	
1	Civil Works **	3,660,000		100.0% of total expenditure claimed
2	Goods and Equipment	5,226,000		100.0% of total expenditure claimed
2A	Laboratory equipment (cytology, laboratory furniture and minor equipment)		1,380,000	100.0% of total expenditure claimed
2B	Hospital equipment		3,371,000	100.0% of total expenditure claimed
2C	ICT equipment		475,000	100.0% of total expenditure claimed*
3	Interest	296,989		100.0% of total amounts due
4	Unallocated	817,011		
	Total	**10,000,000**		

ADB = Asian Development Bank, ICT = information and communications technology.
*Exclusive of taxes and duties imposed within the territory of the Borrower.
**Subject to the condition for withdrawal described in paragraph 7 of Schedule 3 of the Loan Agreement.
Source: Asian Development Bank estimates.

Table 9: Allocation and Withdrawal of Grant Proceeds

Number	Item	Total Amount Allocated for ADB Grant Financing ($)	Basis for Withdrawal from the Grant Account
		Category	
1	Consulting Services **	2,940,000	100.0% of total expenditure claimed*
2	Goods and Equipment (Laboratory equipment) **	13,620,000	100.0% of total expenditure claimed*
3	Nonconsulting Services **	1,450,000	100.0% of total expenditure claimed*
4	Unallocated	1,990,000	
	Total	**20,000,000**	

ADB = Asian Development Bank.
*Exclusive of taxes and duties imposed within the territory of the Recipient.
**Subject to the condition for withdrawal described in paragraph 6 of Schedule 1 of the Grant Agreement.
Note: Grant funds will be prioritized for imported goods and equipment because procurement using Grant funds is exempt from taxes and customs duties.
Nonconsulting Services includes twinning and scholarships, optimizing lab resources, and outsourcing as described in the Procurement Plan.
Source: Asian Development Bank estimates.

E. Detailed Cost Estimates by Financier

Table 10: Detailed Cost Estimates by Financier ($ million)

Item		ADB Loan		ADB Grant		Government		Total Cost[a]	% of base cost	Taxes and Duties
		Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category			
A.	**Investment Costs[b]**									
	1. Consulting Services			**2.94**	**88.3%**	**0.39**	**11.7%**	**3.33**	**10.6%**	**0.39**
	a. International			0.824	89.3%	0.10	**10.7%**	0.92	2.9%	0.10
	b. National			2.116	87.9%	0.29	**12.1%**	2.41	7.7%	0.29
	2. Civil Works	**3.66**	**100.0%**					**3.66**	**11.7%**	**0.39**
	3. Goods and Equipment	**5.23**	**23.9%**	**13.62**	**62.4%**	**3.00**	**13.7%**	**21.84**	**69.6%**	**3.75**
	a. Laboratory equipment	1.38	7.7%	13.62	75.7%	3.00	16.6%	18.00	57.3%	3.17
	b. Hospital equipment	3.37	100.0%					3.37	10.7%	0.58
	c. ICT equipment	0.48	100.0%					0.48	1.5%	
	4. Nonconsulting Services			**1.45**	89.3%	**0.17**	**10.7%**	**1.62**	**5.2%**	**0.14**
	a. Optimizing services			0.30	89.3%	0.04	10.7%	0.34	1.1%	0.04
	b. Outsourcing			0.90	89.3%	0.11	10.7%	1.01	3.2%	0.11
	c. Twinning and scholarship			0.25	89.3%	0.03	10.7%	0.28	0.9%	0.03
	Subtotal (A)	**8.89**	**29.2%**	**18.01**	**59.1%**	**3.56**	**11.7%**	**30.46**	**97.1%**	**4.71**
B.	**Recurrent Costs**									
	Incremental project administration					0.93	100.0%	0.93	2.9%	
	Subtotal (B)					**0.93**	100.0%	0.93	2.9%	
	Total Base Cost	**8.89**	**28.3%**	**18.01**	**57.4%**	**4.48**	**111.7%**	**31.38**	**100.0%**	**4.71**
C.	**Contingencies[c]**									
	1. Physical	0.44	28.3%	0.90	57.4%	0.22	14.3%	1.57	5.0%	0.24
	2. Price	0.37	21.2%	1.09	62.3%	0.29	16.6%	1.75	5.6%	0.25
	Subtotal (C)	**0.81**	**24.5%**	**1.99**	**60.0%**	**0.51**	**15.5%**	**3.32**	**10.6%**	**0.49**
D.	**Financing charges during project implementation[d]**									
	Interest during implementation	0.30	100.0%					0.30	0.9%	
	Subtotal (D)	**0.30**	**100.0%**				**100.0%**	**0.30**	**0.9%**	
Total Project Cost (A+B+C+D)		**10.00**	**28.6%**	**20.00**	**57.1%**	**5.00**	**14.3%**	**35.00**	**111.5%**	**5.20**

Note: Numbers may not sum precisely because of rounding.

[a] Includes tax and duties of $4.71 million, of which $3.56 million will be covered by the government through exemptions from taxes and duties. The government will also provide in-kind project administration support.

[b] In June 2022 prices.

[c] Physical contingencies computed at 5% for all cost categories. Price contingencies, which are calculated based on escalation rates for domestic and international costs estimated for the Kyrgyz Republic, include provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate. The annual escalation rate for international costs is estimated at 1.7% for each year from 2022 to 2023 and 1.8% per year from 2023 onward. The annual escalation rate for domestic costs is estimated at 15% for 2022, 12% for 2023, 7% for 2024, and 5% from 2025 to 2027.

[d] Interest rate for ADB's concessional project loans from ordinary capital resources for Group A countries is 1% per year during the grace period and 1.5% per year thereafter. There are no commitment or other charges on all sources of financing.

Source: Asian Development Bank estimates.

F. Detailed Cost Estimates by Outputs

Table 11: Detailed Cost Estimates by Output

($ million)

		Total[a]	Output 1	% of Cost Category	Output 2	% of Cost Category	Output 3	% of Cost Category
A.	**Investment Costs[b]**							
	1. Consulting Services	3.33	1.49	44.8%	1.30	39.0%	0.54	16.2%
	a. International	0.92	0.50	53.9%	0.37	40.0%	0.06	6.1%
	b. National	2.41	0.99	41.3%	0.93	38.6%	0.48	20.1%
	2. Civil Works	3.66	1.22	33.4%	1.58	43.1%	0.86	23.4%
	3. Goods and Equipment	21.84	11.04	50.5%	7.44	34.0%	3.37	15.4%
	a. Laboratory equipment	18.00	10.80	60.0%	7.20	40.0%		
	b. Hospital equipment	3.37					3.37	100.0%
	c. ICT equipment	0.48	0.24	50.0%	0.24	50.0%		
	4. Nonconsulting Services	1.62	1.15	70.7%	0.48	29.3%		
	a. Optimizing services	0.34	0.34	100.0%				
	b. Outsourcing	1.01	0.67	66.7%	0.34	33.3%		
	c. Twinning and scholarship	0.28	0.14	50.0%	0.14	50.0%		
	Subtotal (A)	**30.46**	**14.90**	**48.9%**	**10.79**	**35.4%**	**4.77**	**15.7%**
B.	**Recurrent Costs**							
	Incremental project administration	0.93	0.37	40.0%	0.28	30.0%	0.28	30.0%
	Subtotal (B)	**0.93**	**0.37**	**40.0%**	**0.28**	**30.0%**	**0.28**	**30.0%**
	Total Base Cost	**31.39**	**15.27**	**48.7%**	**11.07**	**35.3%**	**5.05**	**16.1%**
C.	**Contingencies[c]**							
	1. Physical	1.56	0.76	48.7%	0.55	35.3%	0.25	16.1%
	2. Price	1.75	0.88	50.3%	0.62	35.6%	0.25	14.1%
	Subtotal (C)	**3.31**	**1.64**	**49.5%**	**1.17**	**35.4%**	**0.50**	**15.0%**
D.	**Financing charges during project implementation[d]**							
	Interest during implementation	0.30	0.14	48.7%	0.10	35.3%	0.05	16.0%
	Subtotal (D)	**0.30**	**0.14**	**48.7%**	**0.10**	**35.3%**	**0.05**	**16.0%**
Total Project Cost (A+B+C+D)		**35.00**	**17.06**	**48.7%**	**12.35**	**35.3%**	**5.59**	**16.0%**

Note: Numbers may not sum precisely because of rounding.

[a] Includes taxes and duties of $4.71 million, of which $3.56 million will be covered by the government through exemptions from taxes and duties. The government will also provide in-kind project administration support.

[b] In June 2022 prices.

[c] Physical contingencies computed at 5% for all cost categories. Price contingencies, which are calculated based on escalation rates for domestic and international costs estimated for the Kyrgyz Republic, include provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate. The annual escalation rate for international costs is estimated at 1.7% for each year from 2022 to 2023 and 1.8% per year from 2023 onward. The annual escalation rate for domestic costs is estimated at 15% for 2022, 12% for 2023, 7% for 2024, and 5% from 2025 to 2027.

[d] Interest rate for ADB's concessional project loans from ordinary capital resources for Group A countries is 1% per year during the grace period and 1.5% per year thereafter. There are no commitment or other charges on all sources of financing.

Source: Asian Development Bank estimates.

G. Detailed Cost Estimates by Year

Table 12: Detailed Cost Estimate by Year
($ million)

		2022	2023	2024	2025	2026	2027	Total[a]
A.	**Investment Costs[b]**							
	1. Consultant	0.12	0.69	0.96	0.74	0.62	0.19	3.33
	a. International	-	0.16	0.35	0.25	0.14	0.02	0.92
	b. National	0.12	0.53	0.61	0.49	0.48	0.17	2.41
	2. Civil Works	-	3.66	-	-	-	-	3.66
	3. Goods and Equipment	-	2.51	7.07	8.34	2.53	1.39	21.84
	a. Laboratory equipment	-	1.84	5.44	7.14	2.36	1.22	18.00
	b. Hospital equipment	-	0.67	1.35	1.01	0.17	0.17	3.37
	c. ICT equipment	-	-	0.29	0.19	-	-	0.48
	4. Nonconsulting Services	-	0.04	0.19	0.56	0.56	0.28	1.62
	a. Optimizing services	-	-	0.03	0.12	0.12	0.06	0.34
	b. Outsourcing	-	-	0.09	0.37	0.37	0.18	1.01
	c. Twinning and scholarship	-	0.04	0.07	0.07	0.07	0.04	0.28
	Subtotal (A)	**0.12**	**6.90**	**8.23**	**9.64**	**3.71**	**1.86**	**30.46**
B.	**Recurrent Costs**							
	Incremental project administration	0.06	0.19	0.19	0.19	0.19	0.10	0.93
	Subtotal (B)	**0.06**	**0.19**	**0.19**	**0.19**	**0.19**	**0.10**	**0.93**
	Total Base Cost	**0.17**	**7.10**	**8.42**	**9.84**	**3.89**	**1.96**	**31.38**
C.	**Contingencies[c]**							
	1. Physical	0.01	0.35	0.42	0.49	0.19	0.10	1.57
	2. Price	0.00	0.21	0.35	0.61	0.36	0.22	1.75
	Subtotal (C)	**0.01**	**0.56**	**0.77**	**1.11**	**0.55**	**0.32**	**3.32**
D.	**Financing charges during project implementation[d]**							
	Interest during implementation	-	0.02	0.05	0.09	0.09	0.05	0.30
	Subtotal (D)	-	0.02	0.05	0.09	0.09	0.05	0.30
	Total Project Cost (A+B+C+D)	**0.19**	**7.68**	**9.25**	**11.03**	**4.53**	**2.32**	**35.00**
	% Total Project Cost	**0.5%**	**21.9%**	**26.4%**	**31.5%**	**13.0%**	**6.6%**	**100.0%**

Note: Numbers may not sum precisely because of rounding.

[a] Includes taxes and duties of $4.71 million, of which $3.56 million will be covered by the government through exemptions from taxes and duties. The government will also provide in-kind project administration support.

[b] In June 2022 prices.

[c] Physical contingencies computed at 5% for all cost categories. Price contingencies which are calculated based on escalation rates for domestic and international costs estimated for the Kyrgyz Republic, include provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate. The annual escalation rate for international costs is estimated at 1.7% for each year from 2022 to 2023 and 1.8% per year from 2023 onward. The annual escalation rate for domestic costs is estimated at 15% for 2022, 12% for 2023, 7% for 2024, and 5% from 2025 to 2027.

[d] Interest rate for ADB's concessional project loans from ordinary capital resources for Group A countries is 1% per year during the grace period and 1.5% per year thereafter. There are no commitment or other charges on all sources of financing.

Source: Asian Development Bank estimates.

H. Contract and Disbursement S-Curve

16. The projection for contract awards includes contingencies and unallocated amounts, but excludes front-end fees, service charges, and interest during implementation.

Table 13: Contract Awards and Disbursement (Loan)
($ million)

Year	Contract Awards						Year	Disbursements					
	Q1	**Q2**	**Q3**	**Q4**	**Total**	**Cum.**		**Q1**	**Q2**	**Q3**	**Q4**	**Total**	**Cum.**
2022	-	-	-	0.00	0.00	0.00	**2022**	-	-	-	0.00	0.00	0.00
2023	0.00	0.00	3.70	2.50	6.20	6.20	**2023**	0.00	0.00	1.20	0.58	1.78	1.78
2024	3.50	0.00	0.00	0.00	3.50	9.70	**2024**	0.80	0.84	1.83	1.83	5.34	7.12
2025	0.00	0.00	0.00	0.00	0.00	9.70	**2025**	1.83	0.13	0.13	0.13	2.22	9.34
2026	0.00	0.00	0.00	0.00	0.00	9.70	**2026**	0.36	0.02	0.02	0.02	0.43	9.74
2027	0.00	0.00	-	-	0.00	9.70	**2027**	0.24	0.02	-	-	0.26	10.00

Note: Interest during implementation amounting to $296,988 is not included in the contract awards schedule.

Figure 2: Loan - projected cumulative disbursement and contract award S-curve

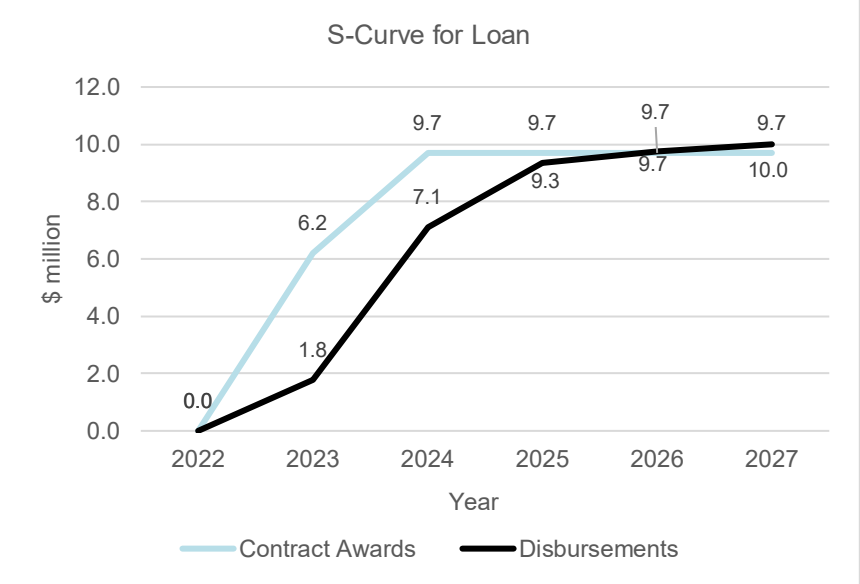
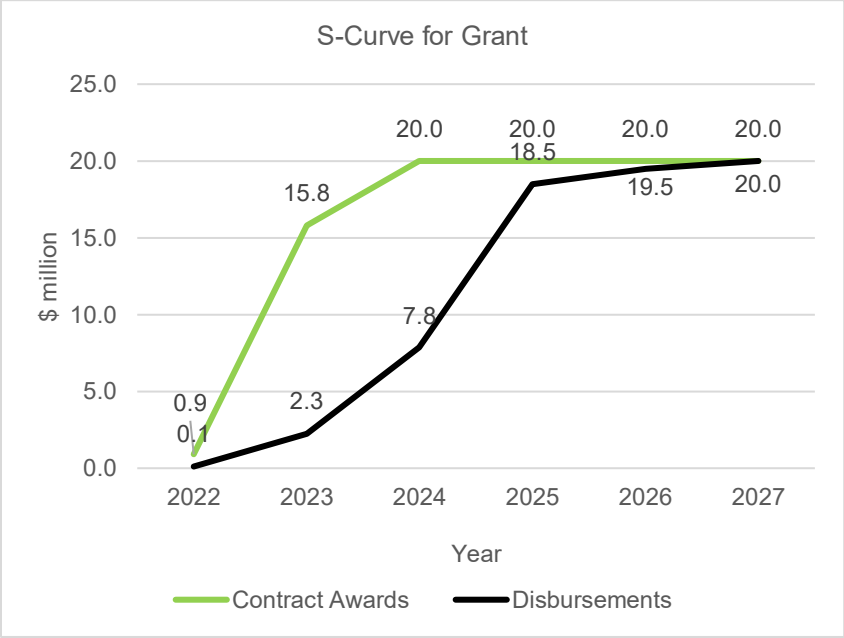


Table 14: Contract Awards and Disbursement (Grant)

($ million)

Year	Contract Awards						Year	Disbursements					
	Q1	**Q2**	**Q3**	**Q4**	**Total**	**Cum.**		**Q1**	**Q2**	**Q3**	**Q4**	**Total**	**Cum.**
2022	-	-	-	0.91	0.91	0.91	**2022**	-	-	-	0.11	0.11	0.11
2023	0.00	0.50	0.78	13.60	14.88	15.79	**2023**	0.08	1.63	0.17	0.28	2.16	2.26
2024	1.05	1.05	1.05	1.06	4.21	20.00	**2024**	0.25	0.29	0.25	4.78	5.57	7.83
2025	0.00	0.00	0.00	0.00	0.00	20.00	**2025**	4.83	4.15	0.84	0.81	10.63	18.46
2026	0.00	0.00	0.00	0.00	0.00	20.00	**2026**	0.26	0.26	0.26	0.26	1.04	19.50
2027	0.00	0.00	-	-	0.00	20.00	**2027**	0.25	0.25	-	-	0.50	20.00

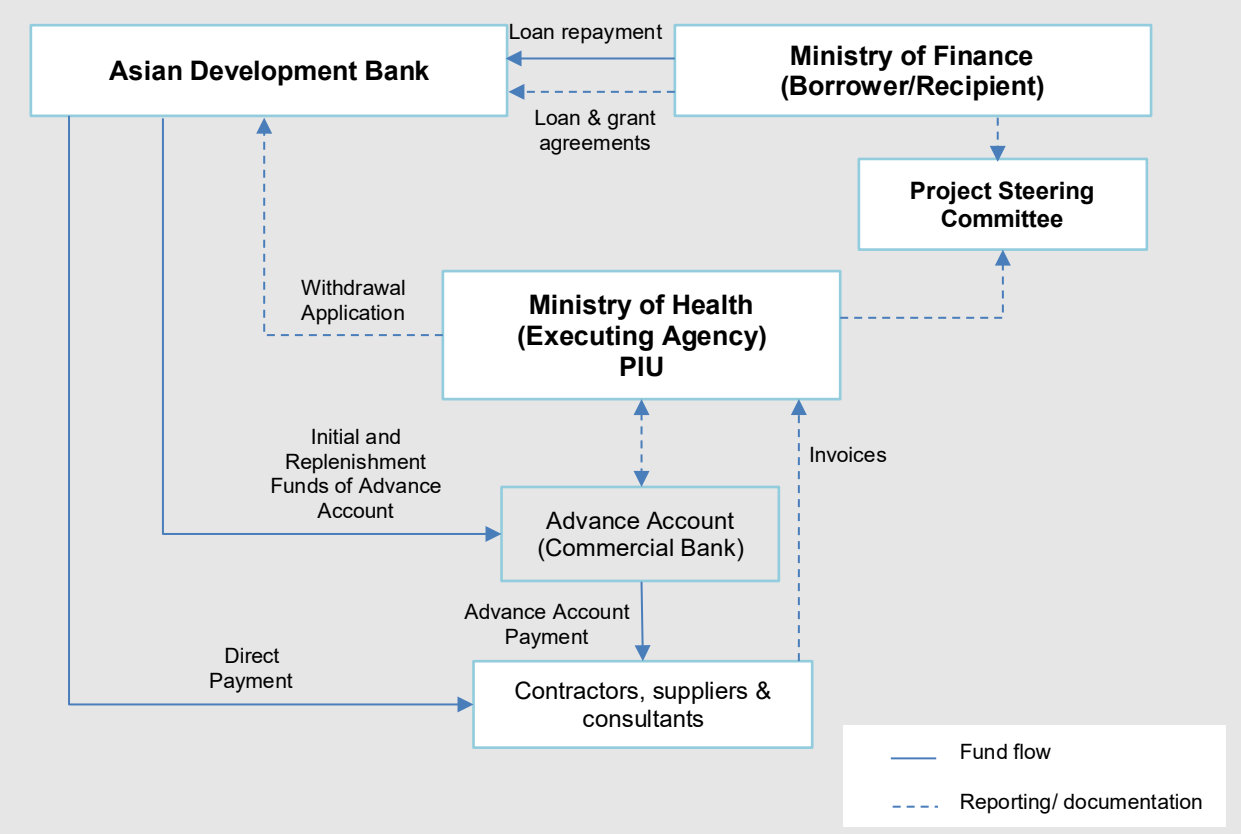
Figure 3: Grant - projected cumulative disbursement and contract award S-curve



I. Fund Flow Diagram

17. The figure below shows how the funds will flow from ADB and the borrower to implement project activities, and how documents for requests for disbursement will flow to ADB. PIU will establish and maintain advance accounts for each funding source. Advance fund procedures are described in paras 30-31.

Figure 4: Fund Flow Diagram



V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

18. The financial management assessment (FMA) was conducted in March 2022 in accordance with ADB's Guidelines for the Financial Management and Analysis of Projects and the Financial Due Diligence: A Methodology Note. The FMA considered the capacity of the MOH, including funds flow arrangements, staffing, accounting and financial reporting systems, financial information systems, and internal and external auditing arrangements.

19. The government of Kyrgyz Republic's public financial management (PFM) system is overall well-functioning and based on a solid legal and regulatory framework as well as clear institutional structure. The latest published assessment of the government's PFM system using the public expenditure and financial accountability (PEFA) was prepared in 2021. Many areas of PFM achieved higher PEFA scores in 2020. These include: (i) comprehensiveness of information included in budget documentation; (ii) extent of unreported government operations; (iii) information available to the public; (iv) orderly budget process; (v) effectiveness of payroll controls; (vi) competition, value for money and controls in public procurement; (vii) effectiveness of internal controls for non-salary expenditure; (viii) effectiveness of internal audit; (ix) quality and timeliness of in-year budget reports; and (x) legislative scrutiny of audit reports. In terms of the three budgetary outcomes, these improvements promise more benefit in terms of efficient service delivery than of aggregate budget discipline and effective resource allocation.

20. The main areas of the PFM needing improvement are: (i) expenditure composition outturns; (ii) public access to fiscal information; (iii) fiscal risk reporting; (iv) macroeconomic and fiscal forecasting; (v) revenue administration; and (vi) expenditure arrears.

21. The EA has some experience in implementing ADB-funded projects, but PIU staff is yet to be selected and this is considered a risk for project implementation. As a mitigating measure for establishment of new PIU and hiring of new staff, ADB requires staff to undergo online training on ADB procurement prior starting the project. The PIU Manager, Accountant, Finance Officer, and Disbursement Officer from the PIU and key MOH staff will be trained in ADB disbursement as per ADB's *Loan Disbursement Handbook* (2017, as amended from time to time). This should include advance fund management and procedures, statement of expenditure (SOE), withdrawal applications, financial reporting, and external audit. The PIU will establish policies and procedures at the beginning of the project to ensure compliance with ADB regulations and requirements. The PIU will also need to develop a Financial Management Manual (FMM) on the agreed processes and procedures based on MOH regulations and ADB requirements. Based on the EA's implementation experience with the ongoing ADB-funded project and other development partner funded projects, the EA has demonstrated financial management capacity to administer such procedures as advance account and SOE with terms proposed.

22. MOH usually does not include the PIU in the internal audit and the standards applied by the Chamber of Accounts are not completely aligned with international standard. MOH will cause the detailed consolidated project financial statements to be audited in accordance with International Standards on Auditing, by an independent auditor acceptable to ADB. MOH will submit the audited project financial statements together with the auditor's opinion in the English language to ADB within 6 months from the end of the fiscal year.

23. The risk rating for each criterion in Table 15 is as follows: (i) fund flow arrangements (moderate); (ii) staffing (substantial); (iii) planning and budgeting (moderate), (iv) accounting

policies (substantial); (v) internal control (moderate); (vi) internal audit (moderate); (vii) financial reporting (moderate); (viii) information systems (low); and (ix) external audit (low).

24. The financial management assessment overall finds the project financial management risk to be substantial (pre-mitigation). Based on the timely implementation of the mitigation measures outlined in the financial management action plan, the project financial management arrangements thus deemed satisfactory.

1. Executing Agency

25. MOH will be the executing agency (EA) and will be responsible for overall project implementation. EA will be supported by PIU responsible for procurement, inventory and assets management, project monitoring responsibilities, and disbursement and fiduciary responsibilities.

26. PIU will be established with 16 staff, including personnel for (i) financial management, (ii) disbursements, (iii) financial reporting and accounting, (iv) financial records management, and (v) managing annual financial audits. MOH uses 1C accounting software for inventories and assets tracking, which is further publicly disclosed in the register on website www.pharm.kg. PIU will use the same platform for inventory and assets management procured under the project. All equipment is received, delivered, handover certificates signed, registered, and labeled. This has been confirmed through ADB review missions. For instance, under the ADB-supported COVID-19 Pandemic Emergency Project, the equipment procured and delivered are observed to be in use. There is a low risk that all equipment will not be used as intended.

27. A Financial Management Action Plan (Table 16) has been agreed with the EA to address the risks.

Table 15: Summary Risk and Mitigating Measures

Risk Type	Risk Description	Risk Assessment (pre-mitigation)[a]	Mitigation Measures
Inherent Risk[b]			
Country-level risks	GOKR's PFM system is overall well-performing and has improved over the last years. Main areas of the PFM needing improvement are: (i) expenditure composition outturns, (ii) public access to fiscal information, (iii) fiscal risk reporting, (iv) macroeconomic and fiscal forecasting, (v) revenue administration, and (vi) expenditure arrears.	Moderate	ADB to engage in policy dialogue and development coordination with the GOKR and other development partners, to determine the support that can be provided to address the areas for improvement.
Entity-specific risks	MOH has limited direct experience with implementing ADB projects, and the PIU may not be adequately staffed with well-qualified and experienced consultants. Risk of not finding experienced consultants.	Moderate	The PIU will prepare an FMM, to be approved by ADB, that will detail financial management processes and procedures based on MOH regulations and the PAM. ADB will provide training to PIU staff on ADB's FM requirements and procedures. PIU staff can also self-train

Risk Type	Risk Description	Risk Assessment (pre-mitigation)[a]	Mitigation Measures
	The FM procedures used by the PIU (under MOF) of the ongoing ADB-funded COVID-19 Pandemic Emergency Project are well-established and follow ADB FM procedures and requirements. However, there is no FMM that covers this.		using ADB e-Learning modules for IPSAS and project financial management. The PIU will prepare a FMM, to be approved by ADB, that will be in line with standards and procedures implemented under previous ADB-financed projects.
Overall Inherent Risk		*Moderate*	
Control Risk [c]			
Staffing	Although MOH has implemented ADB- and development partner–funded projects, MOH staff have limited experience in directly managing the financial aspects of development partner–funded projects. The limited experience of MOH could expose the project to high risks in the project preparation and implementation phases.	Substantial	Key PIU staff (PIU manager, accountant, finance officer, procurement specialist, and disbursement officer) will be engaged in advance and ensure project readiness and continuity of implementation. ADB will provide training to PIU staff on ADB financial management and procurement procedures to strengthen the fiduciary capacity of the project.
Fund flow	MOH has limited direct experience in managing the fund flow for ADB projects, which can lead to delays and inaccuracies in processing the funds.	Moderate	The PIU will prepare an FMM, to be approved by ADB, based on MOH regulations and agreed procedures in the PAM. ADB will provide training to PIU staff on ADB disbursement procedures. Advance account will be established in the name of the project for proper monitoring.
Planning and budgeting	The PIU will apply the planning and budgeting procedures required by MOH and ADB. PIU staff have not yet been recruited. There is a risk that experienced staff may not be available, which may cause delays or inaccuracies in project implementation.	Moderate	The PIU will prepare an FMM, to be approved by ADB, based on MOH regulations and agreed procedures in the PAM. Key PIU staff (PIU manager, accountant, finance officer, procurement specialist, and disbursement officer) will be engaged in advance and ensure project readiness and continuity of implementation.
Accounting	MOH lacks a FMM that details financial management processes and procedures.	Substantial	The PIU will prepare a FMM, to be approved by ADB, that will detail financial management processes and procedures based on MOH regulations and PAM.

Risk Type	Risk Description	Risk Assessment (pre-mitigation)[a]	Mitigation Measures
Internal Control	As civil servants, MOH follows the Kyrgyz Republic's Law on Anticorruption, which includes whistleblower protection. The Law on Anticorruption does not cover PIU staff since they are not civil servants.	Moderate	The FMM will also include internal control procedures that will cover aspects of transparency, accountability, and internal audit to provide assurance on operations.
Internal audit	The PIU is not included in the annual internal audit plan of MOH's IAU because of a lack of staff resources in the IAU.	Moderate	Although the majority of planned audits were implemented and there is evidence that most internal audits receive adequate responses on the part of the auditee, MOH will include the PIU in MOH's annual internal audit plan and share the report findings and recommendations with ADB. The PIU will recruit an internal audit consultant to conduct internal audit of the project.
Financial reporting	There is a risk that PIU staff that will be recruited might not be familiar with ADB requirements that will cause delays in implementation of the project.	Moderate	Key PIU staff (PIU manager, accountant, finance officer, procurement specialist, and disbursement officer) will be engaged in advance to ensure project readiness and continuity of implementation. The PIU will prepare an FMM, to be approved by ADB, that will detail financial reporting processes and procedures based on MOH regulations and the PAM. Project-level financial reporting undertaken by the PIU will follow ADB requirements, including by adhering to international standards. The PIU will also report to government entities as required.
Information systems	The PIU (under MOF) of the ongoing ADB-funded COVID-19 Pandemic Emergency Project uses a 1C financial data processing system with functionalities aligned with ADB reporting requirements. For that PIU's reporting to external organizations, data are exported to an Excel spreadsheet, which may increase mistakes.	Low	Use of 1C and financial data processing system will be continued.

Risk Type	Risk Description	Risk Assessment (pre-mitigation)[a]	Mitigation Measures
External audit	Chamber of Accounts' external audits only partially follow international audit standards.	Low	MOH always engages a private firm to conduct an annual audit of the project financial statements based on terms of reference approved by ADB and in accordance with International Standards on Auditing. MOH has had no issues with this procedure during previous ADB projects in the Kyrgyz Republic.
Overall Control Risk		*Substantial*	
Overall Risk		**Substantial**	

ADB = Asian Development Bank, COA = Chamber of Accounts, DPCC = development partners coordination council, FM = financial management, FMM = financial management manual, GOKR = Government of the Kyrgyz Republic, IAU = Internal Audit Unit, IPSAS = International Public Sector Accounting Standards, ISA = International Standards on Auditing, MOF = Ministry of Finance, MOH = Ministry of Health, PAM = Project Administration Manual, PFM = public financial management, PIU = project implementation unit, SOE = statement of expenditure.

[a] Low, moderate, substantial, high.

[b] Inherent risk is the susceptibility of the program financial management system to factors present in its operating environment, such as country- or sector-level rules and regulations, and the agency's working environment (assuming absence of any checks or internal controls).

[c] Control risk is the risk that the program's accounting and internal control framework are inadequate to ensure program funds are used economically and efficiently and for the purpose intended, and that the use of funds is properly reported.

Source: Asian Development Bank.

Table 16: Timebound Financial Management Action Plan

Weakness	Mitigation Action	Responsibility	Target Date
Ministry of Health			
Staffing PIU staff is yet to be recruited. There is a risk that recruited staff may not be familiar with ADB-financed projects.	Key PIU staff (PIU manager, accountant, finance officer, procurement specialist, and disbursement officer) will be engaged in advance and ensure project readiness and continuity of implementation. ADB will provide training to PIU staff on ADB financial management and procurement procedures to strengthen the fiduciary capacity of the project.	MOH/PIU ADB	Condition for disbursement 3 months after loan and grant effectiveness
Fund flow MOH has limited direct experience in managing the fund flow for ADB projects which can lead to delays and inaccuracies in processing the funds.	The PIU will prepare an FMM, to be approved by ADB, based on MOH regulations and agreed procedures in the PAM. ADB will provide training to PIU staff on ADB disbursement procedures. Advance account will be established in the name of the project for proper monitoring.	MOH/ ADB	6 months after loan and grant effectiveness 3 months after loan and grant effectiveness By loan and grant effectiveness

Weakness	Mitigation Action	Responsibility	Target Date
Accounting MOH lacks a FMM that details financial management processes and procedures.	The PIU will prepare an FMM, to be approved by ADB, that will detail financial management processes and procedures based on MOH regulations and the PAM.	MOH/PIU ADB	6 months after loan and grant effectiveness
Internal control As civil servants, MOH follows the Kyrgyz Republic's Law on Anticorruption, which includes whistleblower protection. The Law on Anticorruption does not cover PIU staff since they are not civil servants.	The FMM will also include internal control procedures that will cover aspects of transparency, accountability, and internal audit to provide assurance on operations.	MOH/PIU ADB	6 months after loan and grant effectiveness
Internal audit The PIU is not included in the annual internal audit plan of MOH's IAU because of a lack of staff resources in the IAU.	Although the majority of planned audits were implemented and there is evidence that most internal audits receive adequate responses on the part of the auditee, MOH will include the PIU in MOH's annual internal audit plan and share the report findings and recommendations with ADB. The PIU will recruit an internal audit consultant to conduct internal audit of the project.	MOH-IAU	6 months after loan and grant effectiveness 6 months after loan and grant effectiveness
External audit Chamber of Accounts' external audits only partially follow international audit standards.	MOH always engages a private firm to conduct an annual audit of the project financial statements based on terms of reference approved by ADB and in accordance with International Standards on Auditing. MOH has had no issues with this procedure during previous ADB projects in the Kyrgyz Republic.	MOH	6 months after loan and grant effectiveness

ADB = Asian Development Bank, COA = Chamber of Accounts, FMM = financial management manual, GOKR = government of Kyrgyz Republic, GRM = grievance redress mechanism, IAU = Internal Audit Unit, ISA = International Standards on Auditing, MOH = Ministry of Health, MOF = Ministry of Finance, PAM = project administration manual, PIU = project implementation unit.
Source: Asian Development Bank.

B. Disbursement

1. Disbursement Arrangements for ADB

28. The loan and grant proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2017, as amended from time to time)[4], and detailed arrangements agreed upon between the government and ADB. Online training for project staff on disbursement policies and procedures is available.[5] Project staff are encouraged to avail of this training to help ensure efficient disbursement and fiduciary control.

29. PIU comprising of individual consultants will be responsible for (i) preparing disbursement projections, (ii) requesting budgetary allocations for counterpart funds from MOF, (iii) collecting supporting documents, and (iv) preparing and sending withdrawal applications to ADB.

[4] The handbook is available electronically from ADB website at http://www.adb.org/documents/loan-disbursement-handbook
[5] ADB. Disbursement eLearning. https://elearn.adb.org/course/index.php?categoryid=10

30. **Advance fund procedure.** Separate advance accounts will be established and maintained by PIU for each funding source. Advance accounts in US dollar currency under the name of the project will be established at a bank per requirements in ADB's *Loan Disbursement Handbook* (2017, as amended from time to time) and is not part of the sanction list and has access to SWIFT for international transfer of funds. Under this procedure, ADB will make advance disbursements from the loan and grant accounts for deposit to the advance accounts to be used exclusively for ADB's share of eligible expenditures. PIU who administers the advance accounts, is accountable and responsible for proper use of advances to the advance accounts.

31. The total outstanding advance to the advance accounts should not exceed the estimate of ADB's share of expenditures to be paid through the advance accounts for the forthcoming 6 months. Supporting documents should be submitted to ADB or retained by the borrower in accordance with ADB's *Loan Disbursement Handbook* (2017, as amended from time to time) when liquidating or replenishing the advance account.

32. **Statement of expenditure procedure**.[6] The SOE procedure may be used by PIU for reimbursement of eligible expenditures or liquidation of advances to the advance account(s). The ceiling of the SOE procedure is the equivalent of $100,000 per individual payment. Supporting documents and records for the expenditures claimed under the SOE should be maintained and made readily available for review by ADB's disbursement and review missions, upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit. Reimbursement and liquidation of individual payments in excess of the SOE ceiling should be supported by full documentation when submitting the withdrawal application to ADB.

33. Before the submission of the first withdrawal application (WA), the borrower should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the government, together with the authenticated specimen signatures of each authorized person. The minimum value per WA is stipulated in the *Loan Disbursement Handbook* (2017, as amended from time to time). Individual payments below such amount should be paid through the advance fund procedure, unless otherwise accepted by ADB. The borrower should ensure sufficient category and contract balances before requesting disbursements. Use of ADB's Client Portal for Disbursements (CPD)[7] system is encouraged for submission of withdrawal applications to ADB. MOH confirmed during fact-finding mission that they would use CPD for project disbursements.

2. Disbursement Arrangements for Counterpart Fund

34. The government will provide counterpart in-kind support in the form of exemptions of customs duties and taxes on procurement from grants, steering committee and project oversight responsibilities, information management, and project administration support in the form of office space and counterpart staff. The project costs include taxes and duties of $4.71 million, of which ADB will finance $1.15 million from the loan proceeds while the government will contribute $3.56 million through exemptions from tax and duties. Such amount does not represent an excessive share of the project cost. The government will also provide in-kind project administration support.

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[6] SOE forms are available in Appendix 7B and 7D of ADB's *Loan Disbursement Handbook* (2017, as amended from time to time).

[7] The CPD facilitates online submission of WA to ADB, resulting in faster disbursement. The forms to be completed by the Borrower are available online at https://www.adb.org/documents/client-portal-disbursements-guide

C. Accounting

35. The PIU will use cash-based accounting and will maintain, or cause to be maintained, separate books and records by funding source for all expenditures incurred on the project following International Public Sector Accounting Standard for cash-based accounting. The PIU will prepare project financial statements in accordance with the government's accounting laws and regulations which are consistent with international accounting principles and practices. PIU uses 1C accounting software to track individual expenditures.

D. Auditing and Public Disclosure

36. The PIU will cause the detailed project financial statements to be audited in accordance with International Standards on Auditing, by an independent auditor acceptable to ADB. The audited project financial statements together with the auditor's opinion will be presented in the English language to ADB within 6 months from the end of the fiscal year by the PIU.

37. The audit report for the project financial statements will include a management letter and auditor's opinions, which cover (i) whether the project financial statements present an accurate and fair view or are presented fairly, in all material respects, in accordance with the applicable financial reporting standards; (ii) whether the proceeds of the loan and grant were used only for the purpose(s) of the project; and (iii) whether the borrower or executing agency was in compliance with the financial covenants contained in the legal agreements (where applicable).

38. Compliance with financial reporting and auditing requirements will be monitored by review missions and during normal program supervision, and followed up regularly with all concerned, including the external auditor.

39. The government and MOH have been made aware of ADB's approach to delayed submission, and the requirements for satisfactory and acceptable quality of the audited project financial statements.[8] ADB reserves the right to require a change in the auditor (in a manner consistent with the constitution of the borrower), or for additional support to be provided to the auditor, if the audits required are not conducted in a manner satisfactory to ADB, or if the audits are substantially delayed. ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures.

40. Public disclosure of the audited project financial statements, including the auditor's opinion on the project financial statements, will be guided by ADB's *Access to Information Policy* (2018).[9] After the review, ADB will disclose the audited project financial statements and the opinion of the

[8] ADB's approach and procedures regarding delayed submission of audited project financial statements:
- When audited project financial statements are not received by the due date, ADB will write to the executing agency advising that (a) the audit documents are overdue; and (b) if they are not received within the next 6 months, requests for new contract awards and disbursement such as new replenishment of advance accounts, processing of new reimbursement, and issuance of new commitment letters will not be processed.
- When audited project financial statements are not received within 6 months after the due date, ADB will withhold processing of requests for new contract awards and disbursement such as new replenishment of advance accounts, processing of new reimbursement, and issuance of new commitment letters. ADB will (a) inform the executing agency of ADB's actions; and (b) advise that the loan may be suspended if the audit documents are not received within the next 6 months.
- When audited project financial statements are not received within 12 months after the due date, ADB may suspend the loan.

[9] ADB. 2018. *Access to Information Policy*. Manila.

auditors on the project financial statements no later than 14 days of ADB's confirmation of their acceptability by posting them on ADB's website. The management letter, additional auditor's opinions, and audited entity financial statements will not be disclosed.[10]

[10] This type of information would generally fall under public communications policy exceptions to disclosure. ADB. 2011. *Public Communications Policy*. Paragraph 97(iv) and/or 97(v).

VI. PROCUREMENT AND CONSULTING SERVICES

A. Advance Contracting and Retroactive Financing

41. All advance contracting and retroactive financing will be undertaken in conformity with *ADB Procurement Policy* (2017, as amended from time to time) and *Procurement Regulations for ADB Borrowers* (2017, as amended from time to time. The request for expression of interest for consultant selection and issuance of invitations to bid under advance contracting and retroactive financing will be subject to ADB approval. The borrower/recipient, and MOH, have been advised that approval of advance contracting and retroactive financing does not commit ADB to finance the project.

42. **Advance contracting.** Advance contracting may be undertaken for (i) recruitment of PIU staff to support advance procurement actions, (ii) procurement of laboratory equipment including reagents, (iii) procurement of hospital equipment, and (iv) procurement of civil works.

43. **Retroactive financing.** The retroactive financing limit for eligible expenditures incurred within 12-months prior to the signing date of the related loan and grant agreements can be up to a maximum of 20% of the approved financing amount.

B. Procurement of Goods, Works, and Consulting Services

44. To achieve value for money, effectiveness of procurement; and to mitigate risks around supply chain volatility, security and quality of the supply, and the requirements on local access to technical support for specialized equipment, a strategic procurement analysis was undertaken. The analysis assessed the executing agency's capacity to undertake procurement, current market options, existing suppliers in the ongoing projects and other recently undertaken projects funded development partners in relation to government priorities, lesson learnt and good practices from similar procurement in the region. Given the uncertainty and restrictions in the current circumstances, it was assessed that the diversified procurement arrangement will help mitigate procurement risks in the context of COVID-19 and the ongoing conflict in the region.

45. All procurement of goods, works, nonconsulting, and consulting services in the project will be undertaken in accordance with *ADB Procurement Policy* (2017, as amended from time to time) and *Procurement Regulations for ADB Borrowers* (2017, as amended from time to time).

46. The main procurement will be civil works, laboratory equipment including consumables and reagents for the project laboratories. The project includes LIMS implementation support and hardware. To improve case management at the border and high travel zone hospitals, the project hospitals will be provided with emergency and diagnostic equipment.

47. The project includes consulting services for (i) baseline/endline survey; (ii) construction supervision; (iii) CQI and sustainable laboratory financing; (iv) LIMS implementation support; (v) preparation of service contracts for (a) outsourcing selected CDL tests to private labs in Bishkek, (b) outsourcing lab samples transportation in Bishkek and Osh, and (c) optimization of bacteriology tests in Bishkek; (vi) audit firm; (vii) regional collaboration; and (viii) support MOH and PIU in ensuring compliance to ADB SPS requirements and national laws, rules and regulations.

48. Nonconsulting services include (i) outsourcing selected CDL tests to private labs in Bishkek, (ii) outsourcing lab samples transportation in Bishkek and Osh, (iii) optimizing bacteriology tests in Bishkek, and (iv) twinning and scholarship.

49. An 18-month procurement plan indicating threshold and review procedures, goods, works, nonconsulting and consulting services contract packages are in Section C and open competitive bidding guidelines is in Section D. The cost estimate of the packages is based on the quantity in the cost estimate item list and reference unit price provided by the MOH or obtained through the market analysis.

50. All consultants will be recruited according to *ADB Procurement Policy* (2017, as amended from time to time) and *Procurement Regulations for ADB Borrowers* (2017, as amended from time to time).[11] The terms of reference for all consulting services are detailed in Section E.

51. The PIU will engage an estimated 745 person-months of experts to (i) facilitate project management and implementation, and (ii) strengthen the institutional and operational capacity of the executing agency. In addition, there will be one national internal auditor engaged for one person-month. Total national person-months is 745.

52. Consulting firms will be engaged using the quality- and cost-based selection (QCBS) method with a standard quality–cost ratio of 80:20; Consultants' Qualifications Selection (CQS) and Least Cost Selection (LCS).

C. Procurement Plan

Basic Data

Project Name: Strengthening Regional Health Security Project	
Project Number: 55131-001	**Approval Number:**
Country: Kyrgyz Republic	**Executing Agency**: Ministry of Health
Project Procurement Risk: Low	**Implementing Agency**: N/A
Project Financing Amount: US$ 35,000,000 **ADB Financing:** US$ 30,000,000 **Cofinancing (ADB Administered):** **Non-ADB Financing:** US$ 5,000,000	**Project Closing Date:** 31 March 2028
Date of First Procurement Plan: 8 June 2022	**Date of this Procurement Plan**: 26 July 2022
Procurement Plan Duration: 18 **months**	**Related to COVID-19 response efforts:** Yes
Advance Contracting: Yes	**Use of e-procurement (e-GP):** No

D. Methods, Review and Procurement Plan

53. Except as the Asian Development Bank (ADB) may otherwise agree, the following methods shall apply to procurement of goods, works, and consulting services.

[11] Checklists for actions required to contract consultants by method available in e-Handbook on Project Implementation at: http://www.adb.org/documents/handbooks/project-implementation/

Procurement of Goods and Works	
Method	**Comments**
Open Competitive Bidding (OCB) for Goods	All prior review
Direct Contracting for Goods	Twinning and Scholarship (nonconsulting services)
Open Competitive Bidding (OCB) for Works	All prior review

Consulting Services	
Method	**Comments**
Quality- and Cost-Based Selection for Consulting Firm	Quality:cost ratio - 80:20
Consultant's Qualification Selection for Consulting Firm	Construction Supervision package
Least-Cost Selection for Consulting Firm	Audit firm
Competitive for Individual Consultant	PIU staff and individual consultants
Direct Contracting for Individual Consultant	PIU Manager, PIU Procurement Specialist, Civil Engineer

E. Lists of Active Procurement Packages (Contracts)

54. The following table lists goods, works, non-consulting and consulting services contracts for which the procurement activity is either ongoing or expected to commence within the procurement plan duration.

Goods and Works							
Package Number	**General Description**	**Estimated Value (in US$)**	**Procurement Method**	**Review**	**Bidding Procedure**	**Advertisement Date** (quarter/year)	**Comments**
CW-01	Civil works in Bishkek	1,550,000.00	OCB	Prior	1S1E	Q4 / 2022	Non-Consulting Services: No Advertising: National No. Of Contracts: 6 Prequalification of Bidders: No Domestic Preference Applicable: No Advance Contracting: No Bidding Document: Small Works High Risk Contract: No Covid-19 Response? Yes

	Lot 1: SSES-National AMR Bishkek Lot 2: CDL National Reference Lab, National Hospital Lot 3: CDL City Clinical Hospital No. 1, Bishkek (laboratory & emergency admission) Lot 4: CDL National Centre for MCH Bishkek Lot 5: CDL Republican Infectious Clinical Hospital Lot 6: National Hospital Bishkek	250,000.00 350,000.00 400,000.00 150,000.00 200,000.00 200,000.00					
CW-02	Civil works in Chui Oblast	850,000.00	OCB	Prior	1S1E	Q4 / 2022	Non-Consulting Services: No Advertising: National No. Of Contracts: 4 Prequalification of Bidders: No Domestic Preference Applicable: No Advance Contracting: No Bidding Document: Small Works High Risk Contract: No Covid-19 Response? Yes

	Lot 1: SSES Tokmok Lot 2: CDL Zhail Lot 3: CDL Tokmok and emergency admission Lot 4: CDL Issyk-Ata and emergency admission	150,000.00 150,000.00 250,000.00 300,000.00					
CW-03	Civil works in Osh city Lot 1: SSES-Subnational AMR Osh Lot 2: CDL Subnational Reference Lab Clinical Hospital	450,000.00 120,000.00 180,000.00	OCB	Prior	1S1E	Q4 / 2022	Non-Consulting Services: No Advertising: National No. Of Contracts: 3 Prequalification of Bidders: No Domestic Preference Applicable: No Advance Contracting: No Bidding Document: Small Works High Risk Contract: No Covid-19 Response? Yes

	Lot 3: SSES Nookat	150,000.00					
CW-04	Civil works in Osh oblast	810,000.00	OCB	Prior	1S1E	Q4 / 2022	Non-Consulting Services: No Advertising: National No. Of Contracts: 4 Prequalification of Bidders: No Domestic Preference Applicable: No Advance Contracting: No Bidding Document: Small Works High Risk Contract: No Covid-19 Response? Yes
	Lot 1: CDL Uzgen and emergency admission	360,000.00					
	Lot 2: CDL Kara-Suu and emergency admission	250,000.00					
	Lot 3: SSED Aravan	50,000.00					
	Lot 4: SSES Alai	150,000.00					
G-01	Laboratory equipment and reagents	13,620,000.00	OCB	Prior	1S1E	Q3 / 2022	Non-Consulting Services: No Advertising: International No. Of Contracts: 4

	Lot 1: Coagulogy, haematology, immunology Lot 2: Bacteriology Lot 3: Chemistry Lot 4: General lab equipment	3,500,000.00 3,900,000.00 4,200,000.00 2,020,000.00					Prequalification of Bidders: No Domestic Preference Applicable: No Advance Contracting: Yes Bidding Document: Goods High Risk Contract: No Covid-19 Response? Yes Comments: Advance action
G-02	Cytology equipment	980,000.00	OCB	Prior	1S1E	Q3 / 2022	Non-Consulting Services: No Advertising: International No. Of Contracts: 1 Prequalification of Bidders: No Domestic Preference Applicable: No Advance Contracting: Yes

							Bidding Document: Goods High Risk Contract: No Covid-19 Response? Yes Comments: Advance action
G-03	Imaging Equipment	2,766,000.00	OCB	Prior	1S1E	Q3 / 2022	Non-Consulting Services: No Advertising: International No. Of Contracts: 1 Prequalification of Bidders: No Domestic Preference Applicable: No Advance Contracting: Yes Bidding Document: Goods High Risk Contract: No Covid-19 Response? Yes Comments: Advance action
G-04	Hospital equipment essential	375,000.00	OCB	Prior	1S1E	Q3 / 2022	Non-Consulting Services: No Advertising: International No. Of Contracts: 1 Prequalification of Bidders: No

							Domestic Preference Applicable: No Advance Contracting: Yes Bidding Document: Goods High Risk Contract: No Covid-19 Response? Yes Comments: Advance action
G-05	Laboratory furniture and minor laboratory equipment	400,000.00	OCB	Prior	1S1E	Q1 / 2023	Non-Consulting Services: No Advertising: International No. Of Contracts: 1 Prequalification of Bidders: No Domestic Preference Applicable: No Advance Contracting: No Bidding Document: Goods High Risk Contract: No Covid-19 Response? Yes
G-06	Hospital equipment standard	230,000.00	OCB	Prior	1S1E	Q1 / 2023	Non-Consulting Services: No Advertising: International No. Of Contracts: 1

							Prequalification of Bidders: No Domestic Preference Applicable: No Advance Contracting: No Bidding Document: Goods High Risk Contract: No Covid-19 Response? Yes
G-07	ICT equipment LIMS & collection points	475,000.00	OCB	Prior	1S1E	Q2 / 2023	Non-Consulting Services: No Advertising: International No. Of Contracts: 1 Prequalification of Bidders: No Domestic Preference Applicable: No Advance Contracting: No Bidding Document: Goods High Risk Contract: No Covid-19 Response? Yes

Consulting Services							
Package Number	**General Description**	**Estimated Value (in US$)**	**Selection Method**	**Review**	**Type of Proposal**	**Advertisement Date** (quarter/year)	**Comments**
CS-01	Construction supervision	100,000.00	CQS	Prior	BTP	Q4 / 2022	Non-Consulting Services: No

							Type: Firm Assignment: National Advance Contracting: No Covid-19 Response? Yes
CS-02	LIMS implementation consultant	750,000.00	QCBS	Prior	STP	Q3 / 2022	Non-Consulting Services: No Type: Firm Assignment: National Quality-Cost Ratio: 80:20 Advance Contracting: No Covid-19 Response? Yes
CS-04	CQI and sustainable laboratory financing	820,000.00	QCBS	Prior	STP	Q1 / 2023	Non-Consulting Services: No Type: Firm Assignment: International Quality-Cost Ratio: 80:20 Advance Contracting: No Covid-19 Response? Yes
CS-05	Baseline and endline survey	100,000.00	CQS	Prior	BTP	Q2 / 2023	Non-Consulting Services: No Type: Firm Assignment: National Advance Contracting: No Covid-19

							Response? Yes
CS-06	External Audit firm	120,000.00	LCS	Prior	BTP	Q1 / 2023	Non-Consulting Services: No Type: Firm Assignment: National Advance Contracting: No Covid-19 Response? Yes
CS-07	Regional collaboration	100,000.00	CQS	Prior	BTP	Q3 / 2023	Non-Consulting Services: No Type: Firm Assignment: National Advance Contracting: No Covid-19 Response? Yes
ICS-01	PIU Manager	66,000.00	DC	Prior		Q3 / 2022	Non-Consulting Services: No Type: Individual Assignment: National Expertise: Project management Advance Contracting: No Covid-19 Response? Yes Comments: 66 person-months
ICS-02	PIU Accountant	59,400.00	Competitive	Prior		Q3 / 2022	Non-Consulting Services: No Type: Individual Assignment: National Expertise: Accounting

							Advance Contracting: No Covid-19 Response? Yes Comments: 66 person-months
ICS-03	PIU Finance Officer	59,400.00	Competitive	Prior		Q3 / 2022	Non-Consulting Services: No Type: Individual Assignment: National Expertise: Finance Advance Contracting: No Covid-19 Response? Yes Comments: 66 person-months
ICS-04	PIU Disbursement Officer	48,000.00	Competitive	Prior		Q3 / 2022	Non-Consulting Services: No Type: Individual Assignment: National Expertise: Finance Advance Contracting: No Covid-19 Response? Yes Comments: 60 person-months
ICS-05	PIU Procurement Specialist	59,400.00	DC	Prior		Q3 / 2022	Non-Consulting Services: No Type: Individual Assignment: National Expertise: Procurement Advance Contracting: No

							Covid-19 Response? Yes Comments: 66 pm
ICS-06	PIU Procurement Assistant	43,200.00	Competitive	Prior		Q3 / 2022	Non-Consulting Services: No Type: Individual Assignment: National Expertise: Procurement Advance Contracting: No Covid-19 Response? Yes Comments: 54 pm
ICS-07	Contract Administration Specialist	24,000.00	Competitive	Prior		Q4 / 2022	Non-Consulting Services: No Type: Individual Assignment: National Expertise: Contracts Advance Contracting: No Covid-19 Response? Yes Comments: 30 pm
ICS-08	Gender Specialist	19,200.00	Competitive	Prior		Q4 / 2023	Non-Consulting Services: No Type: Individual Assignment: National Expertise: Gender Advance Contracting: No Covid-19 Response? Yes Comments: 24

							pm
ICS-09	Safeguards Specialist	19,200.00	Competitive	Prior		Q4 / 2022	Non-Consulting Services: No Type: Individual Assignment: National Expertise: Safeguards Advance Contracting: No Covid-19 Response? Yes Comments: 24 pm
ICS-10	Civil Engineer	9,600.00	DC	Prior		Q3 / 2022	Non-Consulting Services: No Type: Individual Assignment: National Expertise: Civil engineering Advance Contracting: No Covid-19 Response? Yes Comments: 12 pm
ICS-11	Medical Equipment Specialist	32,400.00	Competitive	Prior		Q4 / 2022	Non-Consulting Services: No Type: Individual Assignment: National Expertise: Equipment specialist Advance Contracting: No Covid-19 Response? Yes Comments: 36 pm
ICS-12	PIU Monitoring and Evaluation	48,000.00	Competitive	Prior		Q3 / 2022	Non-Consulting Services: No

	Specialist						Type: Individual Assignment: National Expertise: Monitoring and evaluation Advance Contracting: No Covid-19 Response? Yes Comments: 60 pm
ICS-13	Training Coordination Specialist	32,400.00	Competitive	Prior		Q2 / 2023	Non-Consulting Services: No Type: Individual Assignment: National Expertise: Training Advance Contracting: No Covid-19 Response? Yes Comments: 48 pm
ICS-14	ICT – LIMS Specialist	39,600.00	Competitive	Prior		Q4 / 2022	Non-Consulting Services: No Type: Individual Assignment: National Expertise: ICT health Advance Contracting: No Covid-19 Response? Yes Comments: 48 pm
ICS-15	Laboratory specialist	32,400.00	Competitive	Prior		Q4 / 2022	Non-Consulting Services: No Type: Individual

							Assignment: National Expertise: lab expert Advance Contracting: No Covid-19 Response? Yes Comments: 36 pm
ICS-16	Translator	54,000.00	Competitive	Prior		Q4 / 2022	Non-Consulting Services: No Type: Individual Assignment: National Expertise: translation and editing Advance Contracting: No Covid-19 Response? Yes Comments: 60 pm
ICS-17	Internal auditor	2,000.00	Competitive	Prior		Q1 / 2023	Non-Consulting Services: No Type: Individual Assignment: National Expertise: audit Advance Contracting: No Covid-19 Response? Yes Comments: 1 pm
PIU-Admin	PIU admin staff	51,800.00	Competitive	Prior		Q3 / 2022	Non-Consulting Services: No Type: Individual Assignment: National

							Expertise: office admin, driver, admin asst Advance Contracting: No Covid-19 Response? Yes Comments: admin positions for a period of 60 months

F. List of Indicative Packages (Contracts) Required Under the Project

55. The following table lists goods, works, non-consulting and consulting services contracts for which procurement activity is expected to commence beyond the procurement plan duration and over the life of the project (i.e., those expected beyond the current procurement plan duration).

Nonconsulting services						
Package Number	**General Description**	**Estimated Value (in US$)**	**Procurement Method**	**Review**	**Bidding Procedure**	**Comments**
NCS-01	Twinning and Scholarship	250,000.00	DC	Prior	DC	Non-Consulting Services: Yes No. Of Contracts: 1 Advance Contracting: No High Risk Contract: Yes Covid-19 Response? Yes Comments: KSMI will be engaged, Q2 2024
NCS-02	Optimizing lab resources for bacteriology tests and reagents in Bishkek	300,000.00	OCB	Prior	1S1E	Non-Consulting Services: Yes Advertising Type: National No. Of Contracts: 1 Prequalification of Bidders: No

						Domestic Preference Applicable: No Bidding Document: Goods Covid-19 Response? Yes Comments: Q3 2024
NCS-03	Outsourcing of selected CDL tests to private labs in Bishkek	600,000.00	OCB	Prior	1S1E	Non-Consulting Services: Yes Advertising Type: National No. Of Contracts: 1 Prequalification of Bidders: No Domestic Preference Applicable: No Bidding Document: Goods Covid-19 Response? Yes Comments: Q3 2024
NCS-04	Outsourcing of sample transportation in Chui and Osh oblasts	300,000.00	OCB	Prior	1S1E	Non-Consulting Services: No Advertising Type: National No. Of Contracts: 1 Prequalification of Bidders: No Domestic Preference Applicable: No Bidding Document: Goods

						Covid-19 Response? Yes Comments: Q3 2024

Consulting Services						
Package Number	**General Description**	**Estimated Value (in US$)**	**Selection Method**	**Review**	**Type of Proposal**	**Comments**
CS-03	Preparation of service contracts for outsourcing special CDL tests in Bishkek; outsourcing sample collection transport in Bishkek and Osh; and optimization of bacteriology tests in Bishkek	250,000.00	QCBS	Prior	BTP	Non-Consulting Services: No Type: Firm Advertising: International Quality-Cost Ratio: 80:20 Covid-19 Response? Yes Comments: Q2 2024

G. Open Competitive Bidding

1. General

56. The procurement and recruitment will follow:
(i) ADB Procurement Policy for Goods, Works, Nonconsulting and Consulting Services – July 2017[12]
(ii) Procurement Regulations for ADB Borrowers (“Regulations”) for Goods, Works, Nonconsulting and Consulting Services – July 2017[13]
(iii) Open Competitive Bidding Guidance Note on Procurement - June 2018[14]
(iv) Consulting Services administered by ADB Borrowers Guidance Note on Procurement – June 2018[15]

57. The executing agency will only use the last ADB Standard Bidding Documents English for Open Competitive Bidding (OCB) and eventually the Russian version for OCB National if

[12] ADB. 2017. *ADB Procurement Policy: Goods, Work, Nonconsulting and Consulting Services*. Manila.
[13] ADB. 2017. *Procurement Regulations for ADB Borrowers*. Manila.
[14] ADB. 2018. *Guidance Note on Procurement: Open Competitive Bidding*. Manila.
[15] ADB. 2018. *Consulting Services Administered by ADB Borrowers ing-services.* Manila, and for information Framework Agreements for Consulting Services. Manila.

necessary, if the Kyrgyz version has not yet been adapted according to those new ADB regulations.

(i) Prequalification: https://www.adb.org/documents/prequalification-bidders-guide
(ii) Goods: Guidelines: https://www.adb.org/documents/procurement-goods-guide; SBD: 1S-1E https://www.adb.org/sites/default/files/sdb-goods-1s1e-dec2021.zip;1S-2E: https://www.adb.org/sites/default/files/sdb-goods-1s2e-dec2021.zip
(iii) Works – Small: Guidelines: https://www.adb.org/documents/procurement-small-works-guide; SDB: 1S-1E https://www.adb.org/sites/default/files/works-small-1s1e-dec2021.zip;1S-2E https://www.adb.org/sites/default/files/works-small-1s2e-dec2021.zip
(iv) Consulting Services Guidelines: https://www.adb.org/documents/selection-consulting-services

2. Eligibility

58. The eligibility of bidders shall be as defined under Eligibility provisions of ADB Procurement Guidelines (March 2013, as amended from time to time), accordingly, no bidder or potential bidder should be declared ineligible for reasons other than those provided in the Guidelines.

3. Preferences

59. No domestic preference shall be given for domestic bidders and for domestically manufactured goods for selected packages.

4. Bid Security and Performance Security

60. Where required, bid security (earnest money), retention money (or security deposit) and performance security (or performance guarantee) shall be in the form of a demand draft, certified check, letter of credit, or bank guarantee from a reputable bank. The terms and conditions of bid security as well as retention money and performance security shall be clearly specified in the forms provided and/or conditions of contract in terms of periods of validity and grounds for forfeiture, or release of the bank guarantees, or refund of the cash security deposits.

5. Rejection of All Bids and Rebidding

61. Bids shall not be rejected, and new bids solicited, without ADB's prior concurrence.

6. Low Bids and Unbalanced Bids

62. Bids shall not be rejected solely because the bid price is seriously lower than the estimate or unbalanced. The bidder whose bid is determined to be the lowest evaluated substantially responsive bid may be required by the Executing Agency (EA) to provide a higher performance security to a level sufficient to protect the EA against financial loss in the event of default of the successful bidder under the Contract.

7. Participation by Government-owned Enterprises

63. Government-owned enterprises in the Kyrgyz Republic shall be eligible to participate as bidders only if they can establish that they are legally and financially autonomous, operate under commercial law and are not a dependent agency of the contracting authority. Furthermore, they will be subject to the same bid and performance security requirements as other bidders.

8. Right to Inspect/Audit

64. A provision shall be included in all OCB works and goods contracts financed by ADB requiring suppliers and contractors to permit ADB to inspect their accounts and records and other documents relating to the bid submission and the performance of the contract, and to have them audited by auditors appointed by ADB.

9. Fraud and Corruption

65. The Borrower shall reject a proposal for award if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the contract in question.

66. ADB will declare a firm or individual ineligible, either indefinitely or for a stated period, to be awarded a contract financed by ADB, if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for, or in executing, an ADB-financed contract.

H. Consultant's Terms of Reference

1. Consulting firms

67. National and international consulting firms will be engaged by the project to provide support to PIU in specific areas: (i) baseline/endline survey, (ii) construction supervision; (iii) CQI and sustainable laboratory financing; (iv) LIMS implementation support; (v) regional health collaboration; and (vi) preparation of service contracts for outsourcing of selected CDL lab tests for Bishkek and sample transportation, and optimization of bacteriology tests. The terms of reference for these consulting services firms are in Appendix 2 (2A, 2B, 2C, 2D, 2E, and 2F).

2. Individual Consultants

68. In addition, individual consultants will be engaged to support the PIU. The 17 positions and the terms of reference of the consultants are shown in the table below.

Table 17: Individual Consultants (PIU)

Expert	Minimum Qualifications	Person-Months	Responsibilities and Tasks
PIU Manager	• Qualifications in public sector administration with at least 10 years of experience in government project administration, at least three years preferably financed by international agencies. Preferably a PhD/MD degree.	66	• Report to MOH and be responsible for, and duly authorized, to manage all responsibilities and tasks related to project implementation with MOH as the EA; • Liaise with MOH administration and technical experts, MOF, other ministries, agencies, partners, and other stakeholders involved to ensure sound administrative, and technical project implementation;

Expert	Minimum Qualifications	Person-Months	Responsibilities and Tasks
	• Strong managerial, analytical and problem-solving capacities; • Able to speak, write and read English.		• Ensure that all social and environmental safeguards are adhered to as per ADB guidelines; • Ensure sound procurement procedures as per ADB guidelines and ensure to update the project administration manual on a quarterly basis; • Have authority to approve minor project expenditures with financial ceilings to be agreed with MOH and MOF, and sign off on major project expenditure above financial ceilings to be agreed with MOH and MOF to be submitted for approval to MOH and MOF; • Ensure that the accountability measures are respected by the EA during project implementation. This will include updating of operational and yearly budget plans, review of all reports before submission, and contractual management. Be responsible for overall financial management and for timely reporting to the EA; oversight committee and ADB; • Ensure adequate project monitoring and reporting as required with ADB; • Facilitate ADB review missions, respond to ADB queries, and ensure timely MOH midterm and end-of-project evaluations and action taken as agreed.
Accountant	• Certified public accountant or equivalent with a least 10 years of demonstrated relevant experience, including with international agencies; • Strong analytical and financial management capacities; • Preferably able to speak, write and read English.	66	• The Accountant will report to the PIU Manager and be responsible for and authorized to ensure the quality of project accounts; • Ensure that the project accounting, financial management, recording and reporting system and tools meet international standards; • Provide training to the PIU financial team on accounting and financial management; • Conduct regular inspection of accounts; • Guarantee accuracy and timeliness of finance and accounting data and timely submission of monthly financial reports to the PIU Manager; • Monitor contract awards and disbursements in accordance with the budget in the loan and grant agreements; • Assure that all audit recommendations are incorporated into the accounting system and implemented.
Finance Officer	• Financial degree that reflects strong competence in financial management, and at least 10 years of proven experience in financial management, preferably with international agencies. Knowledge of basic procurement system requirements/certifications, preferably have an MD degree in Finance. • Write and read English.	66	• The Finance Officer will be working in close cooperation with the PIU Manager and the Accountant, MOH, MOF, and will guide and consult other PIU staff and consultants if and when required; • Develop and set up the digital project accounts, financial management, records and reporting system with tools, procedures and manual; • Provide staff training on MOF, MOH and ADB financial management standards and procedures; • Assure that all financial and procurement staff fulfill their responsibilities in accordance with their scope of work;

Expert	Minimum Qualifications	Person-Months	Responsibilities and Tasks
			• Ensure the project financial management system and procurement is fully operational during the entire project implementation period; • Manage all operating expenditures for the PIU; • Report bank statements; issue certificates required for customs or tax clearance; • Maintain the finance management information system with support of the disbursement officer; • Prepare budget reviews and monthly financial reports; • Prepare the documents related to payments of contracts and withdrawal applications with the disbursement officer; • Manage advance account replenishment and financial status of the project; • Manage all audit-related tasks together with the disbursement officer; • Review the PIU operating expenditures and payments orders; • Maintain the bookkeeping system for all PIU operating costs and keep record of all petty cash disbursed; and • Manage and review bank operations for PIU contract payments; • Participate in ADB review missions, audits and other functions.
Disbursement Officer	• Financial degree with demonstrated competence in accounting at least five years of experience.	60	• The Disbursement Officer will report to the Finance Officer and work closely with other PIU staff and consultants; • Manage the operating expenditures for the PIU; • Process financial data with the finance management information system; • Manage the preparation of budget revisions and monthly financial reports; • Manage payments of contracts and withdrawal applications; • Process the advance account replenishment and financial status of the project; • Manage the PIU operating expenditures and payments orders; • Maintain the bookkeeping system for all PIU operating cost; • Manage all petty cash disbursements; • Manage and prepare bank operations for PIU contracts payments; • Monitor and record all financial transactions including direct payments made by ADB, advance accounts, and advanced. • Verify handling of project funds on project sites; • Prepare statements of expenditure; • Prepare withdrawal applications and documentation to replenish the advance account;

Expert	Minimum Qualifications	Person-Months	Responsibilities and Tasks
			• Prepare weekly financial reports and monthly consolidated financial statements. • Acceptance, control and registration of primary cash documentation, advance reports, analysis of accounts receivable / payable, accounting tangible asserts, reconciliation of accounts with counterparties, inventory check, work with banks, settlement of payments under contracts. • Keeping timesheets, drafting regulations, instructions, job descriptions, orders, organization of meetings / trainings, business trips • Assist with financial audit.
Procurement Specialist	• Graduate degree in business administration, logistics and supplies or related field, with proven procurement capabilities, and at least 8 years of experience in substantive procurement, preferably with international agencies; • Write and read in English.	66	• The Procurement Specialist will report to the PIU Manager, work closely with the financial PIU team on all matters involving financing, and work closely with other PIU staff and consultants to ensure quality procurement and sound procurement practices. • Plan, manage, supervise, track and report all procurements and procurement processes; • Regularly check and circulate updated Procurement Plan; • Prepare bid documents and contracts for consultant services, non-consultant services, civil works (construction), and the procurement of goods (equipment); • Supervise requests for quotations (RFQ) for small contracts; • Respond to request for clarifications (RFCs) from bidding companies; • Organize pre-bid meetings as needed and prepare minutes of those meetings; • Facilitate the MOH bid evaluation committees; • Prepare Variation Orders for all contracts as needed; • Verify that all contract relevant documents are available and valid (bank guaranties, social security, insurances, drawing, etc.); • Ensure that all documents are approved, signed and published on time; • Respond to queries from stakeholders including MOH, ADB, contractors, suppliers, and consultants; • Experience in conducting electronic procurement. Knowledge of the rules of the e-procurement portal; • Official correspondence with government agencies, ADB on bidding issues; • Handling complaints about misconduct on the part of both the tender committee and suppliers; • Publication of tender announcements by projects; • Responsibility for the clear fulfillment of duties in tenders;

Expert	Minimum Qualifications	Person-Months	Responsibilities and Tasks
			• Providing advice on procurement procedures to members of gender commissions and bidders for compliance with procurement guidelines; • Ability to maintain confidentiality of information related to tenders.
Procurement Assistant	• Graduate degree in business administration or related field, proven procurement capabilities, with at least 5 years of experience in procurement, preferably also with international agencies; • Write and read in English.	54	• The Procurement Assistant will report to the Procurement Expert and work closely with the financial PIU team on all matters involving financing and with other PIU staff and consultants to ensure quality procurement and sound procurement practices; • Digitally track all procurement activities and maintain the Procurement Plan; • Assist with the preparation of bid documents and contracts for consultant services, non-consultant services, civil works (construction), and the procurement of goods (equipment); • Prepare requests for quotations (RFQ) for small contracts; • Prepare answers for request for clarifications (RFCs) from bidding companies; • Prepare Variation Orders for contracts as needed; • Ensure that all contract relevant documents are available and valid (bank guaranties, social security, insurances, drawing, etc.); • Ensure that all relevant procurement documents are approved, signed and published on time; and • Assist with responding to queries from stakeholders.
Contract Administration Specialist	• Degree in law. Additional engineering education is an advantage. • Experience in international projects at least 6 years. Experience in contract administration of 5 years or more. • Ability to read estimates/budgets and specifications. • Knowledge of English at least Intermediate.	30	• Work in close coordination with PIU Manager, MOH, MOF, and other ministries, and report to the PIU Manager; • Analyze national and international legal and regulatory documents and guidelines for their alignment with existing laws and regulations and best practices (including but not limited to the country's laws and regulations); • Report on findings and establish recommendations for the development or adaptation of these legal and regulatory documents and guidelines; • Present and discuss findings and recommendations in meetings, workshops, and stakeholders; • Assist with the preparation and review of relevant documents. • Legal analysis of documents; • Concluding and monitoring the execution of the terms of contracts; • Keep control on changes in the main terms of the contract.
Gender Specialist	• Postgraduate degree in sociology, gender studies,	24	• Assist and guide the PIU and stakeholders to implement the gender action plan (GAP) in accordance with ADB and Government of KR

Expert	Minimum Qualifications	Person-Months	Responsibilities and Tasks
	development studies or other relevant discipline; • At least 5 years' experience in gender-related work and community development; • Good knowledge of indigenous peoples' and gender issues related to health services and health projects and prior work experience with ADB-funded or donor-funded projects; • Write and read in English.		gender-related policies and plans in order to achieve the women's empowerment results of GAP; • Provide guidance for mainstreaming gender and social inclusion considerations in activities related to project implementation, management and monitoring, including assessing the gender-responsiveness of the project at midterm and completion; • Monitor implementation of GAP targets; collect qualitative and quantitative data showing progress on GAP targets and include findings into reports to the Executing Agency (EA) / ADB; • Ensure that gender-disaggregated data and gender-specific indicators in the GAP and design monitoring framework are incorporated into the project performance and monitoring system; and that GAP implementation is incorporated into annual work plans and budgets.
Safeguards Specialist	• Preferred postgraduate degree in environmental science, environmental engineering, urban planning or equivalent. • Experience in preparing or monitoring the implementation of environmental safeguards of donor-funded projects. • Write and read in English.	24	The Safeguard Specialist will cover environment, health and safety, resettlement and indigenous people/ethnic group safeguard requirements. For environmental safeguards the safeguard specialist will provide technical assistance and support to the PIU in carrying out the responsibilities for environmental management plan (EMP) implementation, monitoring and reporting and safeguard documentation. The role will include but not be limited to: • Act as point of contact for the construction supervision firm particularly its national environmental safeguard specialist; • Ensure EMP is part of bidding documents; • Review and clear any contractor response to bidding document environmental requirements e.g. Construction EMP if required; • Support PIU to undertake safeguard duties; • Prepare the Semi-Annual Environmental Monitoring Report for submission to ADB during the construction and annually thereafter; • Site visits to conduct monitoring and consultation with affected people; • Ensure the contractors have requisite permits and permissions are in place for all works.
Civil Engineer	• Civil Engineer or architect; • At least 10 years relevant experience in the design and construction supervision of construction projects, preferably related to health sector infrastructure; • Familiar with health facility standards and design; • Familiar with MOH standards for civil works component of	12	• In coordination with the PIU Manager, lab expert, medical equipment specialist and others, provide technical inputs, supervise and monitor of civil work activities; • Provide inputs in evaluating civil works tender; • Coordinate with the head of labs and hospitals prior and during contract implementation to minimize disruption to normal activities; • Ensure that the contractors mobilized required key experts/workers, approved materials and equipment

Expert	Minimum Qualifications	Person-Months	Responsibilities and Tasks
	health facilities and cost estimates; • Knowledgeable on the preparation of detailed engineering design of building projects that includes but not limited to structural, architectural, electrical, mechanical, sanitary and cost estimates; • Write and read in English.		that are consistent with the scheduled construction activities; • Monitor and supervise the civil works and ensure that the contractors are undertaking their respective tasks in accordance with the approved contracts and standards; • Take responsibility in supervision of civil works; • Review and recommend appropriate action in the review of submitted requests for billings, variation orders and other related documentation; • Ensure that the contractor is adhering with the environmental, social safeguards, occupational health and safety requirements and gender action plan, in coordination with the safeguards specialist; • Participate in the project meetings and provide appropriate guidance and recommendation on the civil works component, as need arises; • Assists in review and certification of accomplishments and project completion; • Prepare and submit regular progress reports as stipulated; • Perform other tasks as may be requested by the PIU Manager.
Medical Equipment Specialist	• The engineer will have a postgraduate degree in biomedical engineering or related field; • Familiar with the health facility standards related to medical equipment and ADB procurement guidelines; • Knowledgeable on the preparation Bill of Quantities, specifications and providing input to the design team related to engineering services and space requirements; • Preparation of cost estimates; • Write and read in English.	36	• In coordination with the PIU Manager, procurement specialist, civil work specialist, supervise and monitor the activities of the suppliers; • Support the ICT specialist in equipment interface with LIMS; • Coordinate with the head of labs and hospitals prior and during contract implementation to ensure the normal activities will not be affected by the project activities; • Ensure that the suppliers have mobilized required key experts/workers, approved materials and equipment that are consistent with the scheduled delivery and installation activities; • Monitor and supervise the delivery and installation and ensure that the suppliers are undertaking their respective tasks in accordance with the approved contracts and standards; • Coordinate and monitor training activities provided by suppliers; • Conduct commissioning and handing over and ensure completeness of documentations; • Assists in review and certification of accomplishments and project completion; • Perform other tasks as may be requested by the PIU Manager.
Monitoring and Evaluation Specialist	• Postgraduate degree in bio-statistics, public health or related field;	60	• Prepare annual operational plans for the project; • Facilitate in developing and updating project monitoring guidelines for project financed activities

Expert	Minimum Qualifications	Person-Months	Responsibilities and Tasks
	• Experience in project planning, monitoring and evaluation is preferred; • Preferable previous experience in implementation of ADB/World Bank funded project; • Strong computer and analytical skills; • Write and read in English.		• Work with specialists of the PIU to develop and update project monitoring system including data collection tools, analytical framework, and operationalized database; • Train project staff and other relevant staff on using of the monitoring system; • Coordinate the planning and implementation of baseline, endline and other assessments for the project; • Consolidate and summarize key progress data for midterm and end-of-project evaluation studies; • Support PIU with data analysis and reporting; • Preparing project reports following the requirements of the government and ADB; • Other tasks assigned by PIU Manager.
Training Coordination Specialist	• Postgraduate degree in laboratory science, healthcare management or other related field; • 10 years work experience in the laboratory or clinical training; • Experience in the design of training curricula and modules, development of training content and delivery of in-service training programs; • Experience in the conduct of clinical knowledge assessments, baseline capacity needs analysis and post-training evaluation and performance assessments; • Write and read in English.	48	• Provide overall coordination of the project's capacity building activities; • Undertake training needs assessment to determine in detail the capacity development needs of health staff and other stakeholders in the project's target locations; • Prepare a multi-year capacity development plan for project stakeholders; • In collaboration with the procurement specialist, prepare the terms of reference for engagement of a firm to deliver the training program; • Oversee and quality assure preparation and delivery of the training program • In collaboration with the Planning, Monitoring and Evaluation Specialist develop data collection systems and ensure the routine collection of training output and outcome data • Perform other tasks as may be requested by the PIU Manager.
ICT – LIMS Specialist	• Degree in information technology or software development; • At least 10 years of working experience in implementation of comparable health system environments.	36	• Work with the ICT consulting firm and users to define customization, LIMS/analyzers interface and reporting requirements for the LIMS; • Collaborate with the M&E expert to define the performance indicators to be generated from the LIMS; • Develop implementation plan and operational guidelines of the LIMS; • Conduct basic computer skills training for lab staff; • Monitor implementation progress.
Laboratory Specialist	• Degree in medical laboratory technology, microbiology, biochemistry or related field; • 10 years hand-on experience in practical laboratory work, preferably	36	• In coordination with the PIU Manager, civil work specialist, medical equipment specialist and others, coordinate laboratory equipment procurement and civil work; • Provide inputs in laboratory equipment tender;

Expert	Minimum Qualifications	Person-Months	Responsibilities and Tasks
	experience in quality assurance and accreditation of laboratory; • Preferable previous experience in implementation of project supported by international agencies related to laboratory services; • Write and read in English.		• Coordinate with CLC and subsequently also the international CQI firm, provide support to CLC to finalize laboratory optimization plan; • Coordinate with the international lab costing consultant to support CLC in carrying out lab services costing exercise, coordinate with MHIF to get consensus on costing methods; support CLC in • Coordinate with MHIF and support CLC to update the tariffs and the benefit package of lab services; • Coordinate with the CQI firm in implementation of activities, monitor the progress and outputs; • Prepare and submit regular progress reports as required; • Perform other tasks as may be requested by the PIU Manager.
Translator	• Degree in English or related field with 5 years' experience in translating Russian-English; • Working experience in health sector is preferred.	60	• Translate project documents; • Provide interpretation support.

VII. SAFEGUARDS

69. In compliance with ADB's *Safeguard Policy Statement* (2009), the project's safeguard categories are as follows.[16]

70. **Environment (category B).** The project is categorized B for environment. Two Draft initial environmental examination (IEE) reports and corresponding environmental management plan (EMP) have been prepared in accordance with ADB's *Safeguard Policy Statement* (2009) and government laws and regulations. The project impacts during civil works are anticipated to be localized, short term, and can be adequately managed by good civil works practice. The laboratories and hospitals are already operational, and their footprint will not change as a result of the project interventions; no new construction of buildings will take place under the project. The IEEs will be updated based on detailed design and will be included in the bid and contract documents. If Draft IEEs have been included in the bidding documents to meet project readiness, PIU will provide the bidders with the Updated IEEs and will ensure sufficient time is provided, if required, to consider any additional requirements.

71. Based on the findings of the Draft IEEs, the risks to the environment are considered to be minor for the project; the minor negative impacts are expected to occur during the construction and operation phase. The findings will be reconfirmed in the Updated IEEs.

72. The implementation of mitigation measures during the civil works will be the responsibility of the Contractor, hence the required environmental mitigation measures will be defined in the bidding and contract documents. The contractors will be required to submit site-specific and package-specific environmental management plan (SEMP). The SEMP will include pre-works photo-documentation of all sites that will be required by the contractor to execute the works, personnel in charge of and budget on environment, health and safety (EHS), frequency of reporting to PIU, list of logbooks/records to be maintained related to EHS, and information as specified in the IEEs.

73. The PIU Safeguards Specialist will review and confirm the mitigation measures in the SEMP are appropriate, specific and commensurate with the impacts identified due to the works. No works will be allowed until the SEMP is cleared by the PIU Safeguards Specialist. The two Safeguards Specialists (under ICS-09) will support the PIU Safeguards Specialist, prepare monitoring/inspection checklists (daily, weekly, and monthly) based on the contractors' SEMP, identify non-compliances and required corrective actions, ensure proper documentation and logbooks, and prepare all necessary reports as required by ADB SPS, specified in the loan agreement and this PAM, national laws and regulations, and as may be required by the PIU Safeguards Specialist. Prior to start of works, the contractors will be required to attend a Safeguards Orientation Training to be provided by the two Safeguards Specialists and/or PIU Safeguards Specialist.

74. The operational impacts will be those regularly experienced by a functioning laboratory including generation of medical waste, chemical and biological waste and wastewater which may pose environmental and occupational health and safety risks. These can be managed by enforcing and improving existing waste management and biosafety practices at the facility, through support by the project with a continuous quality improvement program.

[16] ADB. Safeguard Categories. https://www.adb.org/site/safeguards/safeguard-categories.

75. The Safeguards Specialists (PIU and project consultants), together with the contractors' EHS staff will ensure that people in the project sites and those that are affected by the project are meaningfully consulted, their views are considered in the project implementation and continuously provided with project-related information. The PIU will need to establish and notify a grievance redressal mechanism according to ADB SPS requirements.

76. Semi-annual environmental monitoring report will be submitted to ADB every 31 July (for period covering January to June) and 31 January (for period covering July to December) commencing six months upon effectivity dates until the Project Completion Report has been issued. Any unanticipated impacts that may be identified during project implementation will be screened, categorized and assessed according to ADB SPS requirements and may require updating of the IEEs or preparation of corrective action plans.

77. Table 18 provides indicative activities related to environmental safeguards. The information will be reviewed based on the Updated IEEs, during ADB review missions or as needed.

Table 18. Indicative Activities on Environmental Safeguards During Project Implementation

Phase	Remarks
Upon effectivity of loan	Establish and notify Grievance Redressal Mechanism Prepare Stakeholders Engagement Plan Mobilize PIU Safeguards Specialist
Upon availability of detailed design	Update IEE based on detailed design and submit to ADB for review and disclosure. Ensure design considerations to avoid impacts are discussed with the design team. Ensure operational requirements per IEE and EMP are considered.
Prior to Issuance of Bid documents	Include IEE and confirm requirements are included in the bill of quantities/provisional sum, personnel/staff and Particular Conditions of the Contract. Confirm loan agreement (Schedule 5) provisions related to bidding and contract documents are included.
During bid evaluation review	Confirm bidders inclusion of EHS requirements and costs.
Prior to award of contract	Ensure all necessary permits and clearances have been obtained
Upon mobilization of the contractor	Ensure contractor including subcontractors will undertake Safeguards Orientation Training to be provided by the Safeguards Specialists (PIU and/or any of the 2 project consultants) Confirm appointment of EHS personnel
Prior to start of works including site preparation and/or installation of contractor facilities	Require contractor to submit site-specific and package-specific EMP (SEMP) to PIU Review and verify contractor's SEMP prior to clearance by PIU Prepare monitoring and inspection checklists based on contractor's SEMP Discuss monitoring and submission of reports
During works	Consider regular meetings to discuss EHS status and corrective actions, if any Submit environmental monitoring reports until project completion report is issued Prepare timebound corrective action plan (CAP) Address grievances/complaints as required Disclose safeguards monitoring reports and CAP (if any) in language and form understable by affected people and stakeholders

Upon completion of works	Prepare post-construction audit report
Project Completion Report	Include report on environmental safeguards implementation and lessons-learned

78. **Involuntary resettlement (category C).** The project will not entail any new land acquisition as civil works will include minor refurbishment and repair of existing facilities to provide increased capacity. Hence, the project falls in Category C safeguard categorization in accordance with ADB's *Safeguard Policy Statement* (2009). Civil works and safeguard expert will be responsible for assessing the potential land acquisition and resettlement (LAR) impact of any proposed refurbishment or repairs prior to starting civil works at any facility. Works that will entail LAR impact, will not be financed under this project. Site-based social due diligence has been performed to confirm that there is no land acquisition, economic displacement, or restriction of access to land use as all construction and repairs will be made on existing medical facilities as per the project design. In case any claims or complaints are submitted during the project implementation, an effective and efficient grievance redress mechanism (GRM, Appendix 7), being already in place, will enhance the provision of timely and sensible hearings and facilitate solutions. The social safeguards compliance monitoring results will be reported by MOH to ADB within (i) quarterly progress reports, (ii) two consolidated annual reports, and (iii) a project completion report. The provided reports will include a separate section on social safeguards monitoring, including the filled-up IR screening checklists for the reporting period.

79. **Indigenous peoples (category C).** Ethnic minorities in the proposed urban project sites constitute about 10% of the population and are economically fully integrated and at parity with the Kyrgyz. These minorities are not considered indigenous as defined by ADB's *Safeguard Policy Statement* (2009) for project operation purposes, resulting there is no impact on indigenous people and therefore the project falls in Category C in accordance with ADB safeguard categorization. Whether indigenous or not, the more relevant concern is for small ethnic groups living in border areas and mountains. These groups are more likely to be poor and vulnerable to the impact of the epidemic, being far from treatment centers and clinics with limited means and possibly language and cultural barriers. The project will provide services to the population living within the project catchment areas.

80. **Communication strategy.** MOH will undertake various activities to implement the communication strategy, in compliance with ADB information disclosure and consultation requirements. The project will be rolled out as part of comprehensive sector plans and program, and stakeholder will be kept informed through regular aid coordination mechanism already in place. Coordination among ministries shall also be assured.

81. **Prohibited investment activities.** Pursuant to ADB's *Safeguard Policy Statement* (2009), ADB funds may not be applied to the activities described on ADB Prohibited Investment Activities List set forth at Appendix 5 of ADB's *Safeguard Policy Statement* (2009).

VIII. GENDER AND SOCIAL DIMENSIONS

82. In 2019, the Kyrgyz Republic ranked 120th out of 189 countries and territories in the United Nations Development Programme (UNDP), with a Human Development Index (HDI) of 0.697. From 2015 to 2019, the poverty rate has reduced from 32% to 20%.[17] Women in the Kyrgyz Republic have been disproportionately affected by earlier economic reforms in terms of work opportunities and social benefits. Female employment was almost halved (42%) by 2007, especially because of job losses in the health sector. By 2018, about 40% of the workforce was female, with low employment of women aged 25-34 years with young children.

83. The COVID-19 pandemic caused an 8.6% contraction of the GDP in 2020, with modest GDP growth of 3.4% expected in 2021.[18] The Kyrgyz Republic's economy is highly dependent on the export of minerals, trade, tourism, and migrant labor, making up about 30% of GDP. As a result of lockdown measures, domestic and foreign employment have dropped sharply. In health and social services, female represents over 83% of the health workforce, implying that more women than men are at risk of contracting an occupational infection like COVID-19.

84. This being a regional health security project focusing laboratory and border hospital services based on all-inclusive technical protocols, the project is not designed to target the poor. The project benefits all citizens including the poor by contributing to preventing and containing infectious diseases, and especially benefit those living in the catchment area of targeted laboratory services by improving access to quality laboratory services and hospitals in busy border areas, with further indirect benefits on household income and post-pandemic recovery.

85. The project's gender categorization is *effective gender mainstreaming*. The government has ratified key international accords on human rights and gender equality including the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) in 1997. It has set up a nation-wide structure to implement the Kyrgyz Republic's first long-term National Gender Strategy (NGS) on Achieving Gender Equality by 2020 adopted in 2012. Modest progress was reported in NGS implementation. To ensure effective gender mainstreaming and results in the Project, a Project Gender Action Plan (GAP) has been agreed with MOH that is aligned with government-wide gender equality commitments. The GAP proposes effective targeting and participation of women. Key gender designs and targets are included in the project's design monitoring framework (DMF), and mirrored in the GAP, and provisions on monitoring and reporting on gender designs included in the loan and grant assurance agreements. The GAP is in Table 19.

Table 19: Gender Action Plan

Activities	Target Indicators	Responsibility	Timeframe
Outcome: Coverage of effective laboratory and border hospital services in Chui and Osh oblasts enhanced.			
Enhanced essential clinical diagnostics tests	Number of essential clinical diagnostic tests[a] including tests for female-specific health conditions[b], performed by project CDLs increased by at least 30% (2022 baseline: 30 tests)	PIU, MHIF, Heads of healthcare organizations	2023-2028

[17] National Statistical Committee of the Kyrgyz Republic. Poverty Rate (accessed 5 May 2022).
[18] International Monetary Fund. 2021. Kyrgyz Republic: Staff Concluding Statement of the 2021 Article IV Mission.

Activities	Target Indicators	Responsibility	Timeframe
Output 1: Capacity, quality and networking of reference laboratories in Bishkek and Osh cities strengthened			
1.1 Conduct a survey of laboratories staff to determine working conditions and their perception on any improvements brought by the project	1.1.1 Both baseline/endline survey questionnaires include gender-specific questions (training attended, promotions, incentives) and sex-disaggregated data.	PIU, Consultant	Q4 2022
1.2 Factor in women's needs in the upgrading of infrastructure for laboratory services	1.2.1 At least 1 staff consultation conducted in each project laboratory to identify needs of female personnel (through questionnaire [online] or interviews [offline]). 1.2.2 All toilets of project laboratories have female hygiene facilities, e.g., bidet, menstrual hygiene facilities, etc.	PIU	Q1-Q4 2023
1.3 Continuously improve the quality of laboratory services	1.3.1 Each project reference laboratory participates in EQA for at least 50% of tests it offers, including at least 50% of tests for female-specific health conditions[b] (2022 baseline: about 15% tests covered; 0% of tests for female-related health conditions covered)	PIU, Consultant	Q4 2023-Q3 2027
Output 2: Laboratory services based on continuous quality improvement in Chui and Osh oblasts (including Bishkek and Osh) developed.			
2.1 Improve laboratory services for women	2.1.1 At least 70% of 13 non-reference project laboratories meet national quality and safety standards (2022 baseline: 0) 2.1.2 At least 20 new essential laboratory tests are introduced and performed in project CDLs, of which 15 are related to female-specific health conditions, reflecting enhanced accessibility to the essential package of clinical diagnostic tests[c] (2022 baseline: N/A)	PIU, MHIF, Heads of healthcare organizations	Q2 2023-Q3 2027
2.2 Collect sex-disaggregated data of patients	2.2.1 All records of patients availing laboratory services are disaggregated by sex and age.	PIU, Consultant	Q2 2023-Q3 2027
Output 3: Patient care and biosafety capacity in hospitals in border areas and high travel zones in Chui and Osh oblasts improved			
3.1 Provide gender-sensitive patient and provider care	3.1.1 Six border hospitals upgraded with low carbon and climate-resilient infrastructure and equipment for improved patient and provider care and surge capacity (2022 baseline: 0)	PIU, Consultant	Q1 2022-Q3 2024

Activities	Target Indicators	Responsibility	Timeframe
	3.1.2 At least 90% of female staff in six border hospitals improved knowledge and skills on infection prevention and control, measured by pre- and post- training surveys (2022 baseline: N/A). 3.1.3 At least 80% of laboratory personnel in Chui and Osh oblasts trained on gender-sensitive administration of laboratory tests, measured by pre- and post- training surveys. 3.1.4 All participating hospitals have sex-segregated with menstrual hygiene facilities toilets for women and men in or near the emergency departments.		
3.2 Increase the understanding of service providers of women's and men's health needs	3.2.1 At least 1 information board in all project laboratories on health issues including women's health issues (anemia, breastfeeding, STDs, HIV, TB, GBV), as well importance of investing in women's health. 3.2.2 Study conducted on sex-differentiated effects of outbreaks and pandemics, especially on female health workers, female patients, and on households with female heads.	PIU (possible partners could be other development agencies like WHO)	2023-2025

CDLs = clinical diagnostic laboratories, EQA = external quality assessment, GBV = gender-based violence, HIV = human immunodeficiency virus, MHIF = Mandatory Health Insurance Fund, PIU = project implementation unit, STDs = sexually transmitted diseases, TB = tuberculosis, WHO = World Health Organization.

[a] Essential package of tests refers to a number of critical, integral, or basic clinical diagnostic tests vital for the diagnosis of the health condition or disease. 21 out of 61 tests are for female-specific health conditions, of which 18 are new tests currently not provided. Total new tests to be introduced is 31.

[b] Pregnancy, anemia, thyroid disorders, cervical and ovarian cancer.

[c] New tests related to female-specific health conditions include: ferritin, transferin, general urine analysis with station, folic acid, chorionadotropin (HCG), CEA-Carcioembrionic antigen, tumor markers CA–125, CA 15-3, CA 19-9, TSH, FT3, FT4, anti-TPO, thyroglobulin, antibodies to thyroglobulin, bacteria detection and AMR using automated systems, MALDI-ToF, and cytology tests.

Source: Asian Development Bank.

IX. PERFORMANCE MONITORING, EVALUATION, REPORTING, AND COMMUNICATION

A. Project Design and Monitoring Framework

86. The design and monitoring framework (DMF) is a summary of the project design and contains the core indicators that focus on the overall project results.

Table 20: Design and Monitoring Framework

Impact the project is aligned with:
Public health and regional health security in the Kyrgyz Republic improved[a]

Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
Outcome			
Coverage of effective laboratory and border hospital services in Chui and Osh oblasts enhanced	By March 2028: a. Public health laboratory services capacity increased to 70% (2022 baseline: 60% national average based on e-SPAR 2021) (OP 1.1, OP 7.3) b. Number of essential clinical diagnostic tests,[b] including tests for female-specific health conditions, performed by project CDLs increased by at least 30% (2022 baseline: 30 tests) (OP 1.1, OP 2.2) c. Border hospitals and points of entry capacities increased to 65% (2022 baseline: 47% national average based on e-SPAR 2021) (OP 1.1, OP 7.3)	a and c. e-SPAR self-assessment reports; WHO laboratories' annual reports b. Laboratories' baseline and end-line surveys using a standard checklist; reports generated from LIMS	R: Increasing capacities take time to effect beyond the project implementation period
Outputs			
Output 1: Capacity, quality, and networking of reference laboratories in Bishkek and Osh cities strengthened	1a. By October 2025, 4 project reference laboratories have applied for ISO 15189 accreditation[c] (2022 baseline: 0) (OP 6.1.1) 1b. By October 2025, 4 project reference laboratories are linked to peripheral laboratories through LIMS and sample transportation services (2022 baseline: 0) (OP 6.2.1) 1c. By September 2027, average LAT score of four project reference laboratories (national and subnational) improved to at least 85% (2022 baseline: 64%) (OP 6.2.1, OP 7.3) 1d. By September 2027, each project reference laboratory participates in external quality assessment for at least 50% of tests it offers, including at least 50% of tests for female-specific health conditions[d] (2022 baseline: About 15% tests covered; 0% of tests for female-specific health conditions covered) (OP 2.2.2, OP 6.2.1) 1e. By September 2027, at least 75% of project reference laboratories (national and subnational) accredited to an international ISO laboratory standard[c] (2022 baseline: 0) (OP 6.2.1, OP 7.3)	1a-1e. Reference laboratories' baseline and end-line surveys 1a, 1c-1e. Reference laboratories' annual reports; project progress reports	A: Regulatory and other stakeholders support reforms R: Staff and budget constraints reduce MOH's stewardship role in laboratory optimization reform

Output 2: Laboratory services based on continuous quality improvement in Chui and Osh oblasts (including Bishkek and Osh cities) developed	By September 2027: 2a. LAT score of 13 non-reference project laboratories improved to at least 70% (2022 baseline: 45%) (OP 6.2.1, OP 7.3) 2b. At least 70% of 13 non-reference project laboratories meet national quality and safety standards for laboratory, including for (mostly female) staff (2022 baseline: 0) (OP 6.2.1) 2c. At least 20 new essential laboratory tests are introduced and performed in project CDLs, of which 15 are related to female-specific health conditions, reflecting enhanced accessibility to the essential package of clinical diagnostic tests (2022 baseline: N/A) (OP 2.2.2, OP 6.2.1) 2d. Turnaround time for bacteriology culture and antimicrobial sensitivity tests decreased to 3 days (2022 baseline: 10 days) (OP 6.2.1)	2a-2d. Chui and Osh laboratories' baseline and end-line surveys 2b-2d. Chui and Osh laboratories' annual report; project progress reports 2b-2d. Annual monitoring using standard checklist 2c-2d. Reports generated from LIMS	
Output 3: Patient care and biosafety capacity in hospitals in border area and high travel zones in Chui and Osh oblasts improved	3a. By October 2024, 6 border hospitals upgraded with low carbon and climate-resilient infrastructure and equipment for improved patient and provider care and surge capacity (2022 baseline: 0) (OP 3.1.3, OP 3.2.5, OP 6.2.1, OP 7.3) 3b. By September 2027, at least 90% of female staff in six border hospitals improved knowledge and skills on infection prevention and control (2022 baseline: N/A) (OP 2.1.1, OP 6.2.1, OP 7.3)	3a-3b. Project quarterly progress reports using the checklist 3b. Pre- and post-training assessments	

Key Activities with Milestones

1. Capacity, quality, and networking of reference laboratories in Bishkek and Osh cities strengthened

1.1 Promote formal recognition of selected laboratories as reference laboratories, identify reference functions, develop plans, and provide support to carry out these functions (Q1 2023–Q3 2027).

1.2 Prepare the reference laboratories' budgets for their reference functions (Q4 2023–Q1 2024).

1.3 Establish a mentoring program[e] for reference laboratories to apply for ISO accreditation within 36 months from loan and grant effectiveness (Q4 2023–Q3 2027).

1.4 Select a universal tool to monitor the performance of the four reference laboratories, and collect and analyze data annually (Q3 2024–Q3 2027).

1.5 Support reference laboratories during the early stages of their work to provide training and external quality assessment for non-reference laboratories (Q3 2023–Q3 2027).

1.6 Upgrade laboratory infrastructure, laboratory equipment, and teaching facilities (Q1 2023–Q2 2024).

1.7 Carry-out regional collaboration activities with Almaty–Bishkek Economic Corridor and Central Asia Regional Economic Cooperation (Q1 2023–Q3 2027).

2. Laboratory services based on continuous quality improvement in Chui and Osh oblasts (including Bishkek and Osh cities) developed.

2.1 Strengthen governance capacity for the national laboratory system, including regulations, standards, planning, financing, management, monitoring, and studies for innovative solutions.

2.1.1 Conduct research of existing quality and (bio)safety standards and develop updated draft national quality and safety standards meeting modern requirements, respective legislation, and plan to implement the quality and safety standards (Q2–Q4 2023).

2.1.2 Circulate drafts for feedback and develop a final proposal of standards and legislation (Q1 2024).
2.1.3 Provide advocacy and support to agencies and stakeholders in adopting the quality and safety standards and legislation within 24 months from loan and grant effectiveness (Q2-Q3 2024).
2.1.4 Identify the support the KCA needs to obtain full ILAC membership for ISO 15189; develop the plan; and perform support activities for the KCA to become a full ILAC member (Q4 2024–Q3 2025).
2.1.5 Select national mentors for all other laboratories in preparation for accreditation to national standards (Q4 2023–Q3 2027).
2.1.6 Review baseline LAT assessment and compile a list of informative and actionable performance indicators (Q4 2023).
2.1.7 Choose pilot performance indicators for each type and level of laboratory in the project laboratories (Q1–Q2 2024).
2.1.8 Carry-out preparatory work and implement innovative pilot solutions (Q3 2024–Q3 2027).

2.2 Develop a cohesive laboratory system and financing plan for Chui and Osh laboratories with stakeholders, including support components such as supplies and maintenance.
2.2.1 Approve and adopt the National Laboratory Optimization Master Plan 2023–2030 within 12 months from loan and grant effectiveness (Q4 2023).
2.2.2 Establish a 4- to 5-member laboratory costing working group, represented by CDL and State Sanitary and Epidemiological Surveillance Coordination Laboratory Council members (Q1 2023).
2.2.3 Based on the optimization master plan, agree on a list of tests to be included in the costing exercise (Q2 2023).
2.2.4 With MHIF, determine costing methodology based on WHO costing tools adapted to the needs of the country (Q2 2023).
2.2.5 Present and get the approval of MHIF and the Ministry of Health on costing methodology and outcome (Q2–Q3 2023).
2.2.6 Propose an updated reimbursement mechanism to MHIF that reflects the calculated cost of laboratory tests (Q3–Q4 2023).
2.2.7 Propose an updated benefits package (selected tests) (Q3–Q4 2023).
2.2.8 Support laboratories to prepare budgets, update payment systems, and monitor expenditures and utilization (sustainability measures) (Q3 2023–Q2 2024).

2.3 Upgrade and equip laboratories based on modern quality and biosafety standards.
2.3.1 Civil works and/or minor renovation: (i) prepare a description of civil works and finalize tender documentation, (ii) conduct tendering and contract awarding, (iii) monitor progress and compliance with environmental and social safeguards, and (iv) verify payments against work completed (Q1 2022–Q3 2023).
2.3.2 Laboratory equipment upgrading: (i) define and prepare bidding documents (Q1–Q2 2022); (ii) approve and advertise bidding documents (by ADB Board consideration date), evaluate bids, and award contracts (Q3–Q4 2022); (iii) monitor delivery, installation, technical training, and handing-over (Q1–Q4 2023); and (iv) monitor execution of warranty and post-warranty maintenance services (Q1 2024–Q3 2027).

2.4 Network SESS laboratories and CDLs in Chui and Osh oblasts internally and with patient care and cross-border services using digital and physical communication systems.
2.4.1 Prepare LIMS consulting firm terms of reference (Q1–Q3 2022); and approve and advertise terms of reference, evaluate firms, and award contract (Q4 2022–Q1 2023).
2.4.2 Define LIMS development and/or customization requirements (Q2 2023); prepare tender document for information technology hardware (Q2 2023); approve and advertise bidding document, evaluate bids, and award contract (Q2 2023–Q3 2023).
2.4.3 Prepare LIMS implementation plan and operational guidelines (Q2–Q3 2023).
2.4.4 Develop and/or customize software, and interface with laboratory equipment (Q3 2023–Q1 2024).
2.4.5 Conduct user training, including basic computer skills (Q1–Q2 2024).
2.4.5 Prepare and conduct user acceptance testing and go live (Q2–Q3 2024).
2.4.6 Monitor post-live performance (Q4 2024–Q3 2027).

2.5 Develop a continuous quality improvement program for the Chui and Osh laboratory services, including strengthening human resources for health.
- 2.5.1 Review post-graduate training curricula of KSMI, including waste management for laboratories (Q2 2023).
- 2.5.2 Develop needed curricula taking into account needs and capacities (Q3 2023).
- 2.5.3 Identify teaching personnel and conduct training workshops for the core teaching staff of KSMI (Q3–Q4 2023).
- 2.5.4 Assemble working groups for respective disciplines and manage the development of courses (Q4 2023–Q3 2024).
- 2.5.5 Provide support during the first runs of new courses in the renovated facilities (Q2 2024–Q1 2025).
- 2.5.6 Select candidates and organize relevant studies abroad supported by project scholarships (Q4 2023–Q3 2027).
- 2.5.7 Select and organize twinning programs for two reference laboratories (Q4 2024–Q3 2027).

3. Patient care and biosafety capacity in hospitals in border areas and high travel zones in Chui and Osh oblasts improved.

3.1 Civil works and minor renovation: (i) prepare a description of civil works and finalize tender documentation, (ii) conduct tendering and contract awarding, (iii) monitor progress and compliance with environmental and social safeguards, and (iv) verify payments against work completed (Q1 2022–Q3 2023).

3.2 Laboratory equipment upgrading: (i) define tender packages and finalize tender documents; (ii) manage tendering process, tender evaluation, and contract awarding; (iii) monitor delivery, installation, technical training, and handing-over; and (iv) monitor execution of warranty and post-warranty maintenance services (Q1 2022–Q3 2027).

3.3 Provide training related to infection prevention and control (Q1–Q2 2025).

Project Management Activities

Establish PIU (Q3 2022)
Recruit key PIU staff (Q3-Q4 2022)
Initiate advertisement of consultants, equipment, and civil works packages (Q3 2022-Q1 2023)
Award consultant, equipment, and civil works contracts (Q4 2022-Q4 2023)
Continuous monitoring and reporting on (i) referral laboratory diagnostics, quality assurance, training, licensing support, digital communication, specimen transport, and information technology; (ii) laboratory system regulation, CQI, planning and financing, and civil and biomedical engineering; and (iii) project coordination, procurement, financial management, gender, environment, resettlement, social safeguards, monitoring and evaluation, research, and audit (Quarterly)

Inputs

ADB:	$20,000,000 (grant)
	$10,000,000 (concessional loan)
Government:	$ 5,000,000

A = assumption, ADB = Asian Development Bank, ABEC = Almaty-Bishkek Economic Corridor, CAREC = Central Asia Region Economic Cooperation, CDL = clinical diagnostic laboratory, CLC = Coordination Laboratory Council, CQI = continuous quality improvement, EQA = external quality assessment, e-SPAR = electronic State Parties Self-Assessment Annual Reporting Tool, HRH = human resources for health, ILAC = International Laboratory Accreditation Cooperation, ISO = International Organization for Standardization, KCA = Kyrgyz Center for Accreditation, KSMI = Kyrgyz State Medical Institute for Retraining and Advanced Training, LAT = Laboratory Assessment Tool, LIMS = laboratory information management system, MHIF = Mandatory Health Insurance Fund, MOH = Ministry of Health, OP = operational priority, PI = performance indicator, PIU = project implementation unit, Q = quarter, R = risk, SSES = State Sanitary and Epidemiological Surveillance, TAT = turnaround time, WHO = World Health Organization.

[a] Kyrgyz Republic. 2019. Joint Order on implementing the Action Plan for the Implementation of the International Health Regulations (2005) in the Kyrgyz Republic for 2020-2022; Kyrgyz Republic. 2019. The Program of the Kyrgyz Republic Government on Public Health Protection and Health Care System Development for 2019-2030 “Healthy Person – Prosperous Country”; and ADB. 2022. *CAREC Health Strategy 2030*. Manila.

[b] The essential package of tests refers to a number of critical, integral, or basic clinical diagnostic tests vital for the diagnosis of a health condition or disease. The package consists of 61 tests, of which 31 will be new (there are currently 30 tests being performed). Out of 61 tests, 21 are related to female-specific health conditions, of which 18 will be new.

[c] Laboratories processing patient samples should aim for ISO 15189 *Medical laboratories: Requirements for quality and competence* accreditation, while laboratories processing samples from environment, food, and consumer products

should aim for ISO/ International Electrotechnical Commission 17025 *General requirements for the competence of testing and calibration laboratories* accreditation.
[d] Pregnancy, anemia, thyroid disorders, cervical and ovarian cancer.
[e] The mentoring program includes all four antimicrobial resistance laboratories previously mentored by WHO's Better Laboratories for Better Health initiative (three of which are project facilities while the one non-project facility is the Bacteriology Laboratory of Jalalabad Oblast Regional Hospital).
Contribution to Strategy 2030 Operational Priorities
Expected values and methodological details for all OP indicators to which this operation will contribute results are detailed in Contribution to Strategy 2030 Operational Priorities (accessible from the linked documents in Appendix 2 of ADB's Report and Recommendation of the President to the Board of Directors).
Source: Asian Development Bank.

B. Monitoring

87. **Project performance monitoring.** The project will regularly monitor the performance targets defined in the proposed Design and Monitoring Framework. Achievements of project outputs and outcome will be monitored through surveys (baseline and endline) and specific reports, while quarterly project progress reporting will regularly monitor the project inputs and activities.

88. Within three months of loan and grant effectiveness, the MOH will, through the PIU, design a comprehensive project performance monitoring and evaluation system (PPMES)[19] and submit to ADB for approval. The PIU has overall responsibility for monitoring the project, track the performance indicators, and ensure achievement of results. On a quarterly basis the project will report on overall physical and financial progress, implementation progress by outputs, GAP, social dimensions, risk assessment and risk management plan, and compliance with loan and grant covenants. All project data will be gender and ethnic group-disaggregated to the extent possible.

89. At least twice a year, ADB will field review missions of the project together with the EA, including field visits to ascertain the progress being made in terms of capacity building, construction, and equipment commissioning, etc. and interact with beneficiaries and field staff.

90. **Compliance monitoring**. Any loan/grant covenants will be monitored during ADB review missions. Based on the understanding reached during these missions, status will be updated in ADB's project performance reporting system.

91. Each report will be in English and in a consistent format agreed to with ADB. The consolidated annual report will include (i) progress as measured through the indicator's performance targets, (ii) key implementation issues and solutions, (iii) updated procurement plan, (iv) updated work plan for the next 6 months, and (v) GAP monitoring update table.

92. **Safeguards monitoring.** Environmental compliance monitoring will be in line with the agreed EMP to ensure protection of the natural, ecological, and human environment at the different stages of project implementation. Monitoring will take place as follows:

(i) ADB will monitor the compliance of the MOH to the environmental provisions by reviewing quarterly progress reports and by periodic supervision missions.
(ii) The PIU will ensure that the environmental provisions contained in the EMP are in the contract documents of civil works.
(iii) The project's contractors will ensure compliance to the EMP and set up a framework to monitor the EMP.

[19] ADB. 2007. Project Performance Management System.

(iv) The PIU civil engineer and safeguards specialist will monitor environmental compliance at the civil work sites. The experts will submit quarterly progress reports and undertake periodic supervision visits.
(v) The PIU through the CQI and sustainable laboratory financing firm, will carry out health care waste management training for health workers in the sites once operational.

93. The PIU will monitor the following environmental indicators in the EMP, where applicable: (i) noise generation; (ii) air quality; (iii) solid and liquid waste management; and (iv) traffic impairment.

94. The project will not require the acquisition of new land as existing sites will be renovated. No involuntary resettlement is envisaged for civil works. There is no impact on indigenous people as none of the existing health facilities are near to where indigenous people live.

95. **Gender and social dimensions monitoring.** The project is classified as an effective gender mainstreaming project. The activities in the GAP will be monitored by the PIU. All GAP targets will be integrated in the project M&E framework and reported quarterly to ADB. [20] The GAP identifies the following areas of focus:

(i) ensure that trends in gender-sensitive indicators are analyzed and understood;
(ii) gender-sensitive recruitment policies are implemented and followed;
(iii) civil works consider gender and disabled person's needs.

C. Evaluation

96. Project evaluation will be carried out during (i) midterm evaluation: assessment of progress of project implementation and adjustments, around 30 months after the start of project implementation; and (ii) end-of-project evaluation and impact assessment 60 months after the start of project implementation. The midterm and end-of-project evaluation reports will be made available before ADB's midterm review mission and project completion report mission respectively. Specifically, the midterm evaluation report will be prepared by PIU and will be reviewed together with ADB in ADB's midterm review mission. The end-of-project evaluation report is considered the government's project completion report and will be prepared by PIU, and will be reviewed together with ADB in ADB's project completion report mission. The ADB's project completion report will follow. Within 6 months of physical completion of the project, the executing agency will submit to ADB a project completion report analyzing project implementation, project performance and achievements against the targets, and expected project impacts. [21]

D. Reporting

97. The PIU, through MOH, will provide ADB with:
(i) quarterly progress reports in a format consistent with ADB's project performance management system; [22]

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[20] ADB's Handbook on Social Analysis: A Working Document, is available at: http://www.adb.org/Documents/Handbooks/social-analysis/default.asp, Staff Guide to Consultation and Participation: http://www.adb.org/participation/toolkit-staff-guide.asp, and CSO Sourcebook: A Staff Guide to Cooperation with Civil Society Organizations: http://www.adb.org/Documents/Books/CSO-Staff-Guide/default.asp

[21] Project completion report format is available at: http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar

[22] ADB. 2007. Project Performance Management System.

(ii) consolidated annual reports including (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions, (c) updated procurement plan, (d) updated implementation plan for the next 12 months, (e) GAP monitoring update table, and (f) implementation of the EMP (semiannual reports during construction phase) and any social safeguards impacts;
(iii) annual financial review reports, and coordinate the response to the annual audit reports which will be submitted to ADB within 6 months after closing of the financial year;
(iv) a project completion report within 6 months of physical completion of the project.

E. Stakeholder Communication Strategy

98. MOH as executing agency will undertake information disclosures on the project and its benefits, including but not limited to information related to the RRP and GAP. Public disclosure of the project financial statements, including the audit report on the project financial statements, will be guided by ADB's *Access to Information Policy* (2018).[23] After review, ADB will disclose the project financial statements for the project and the opinion of the auditors on the financial statements within 30 days of the date of their receipt by posting them on ADB's website.

99. The project information on the government website shall include information for each contract, the list of participating bidders, name of the winning bidder, basic details on bidding procedures adopted, amount of contract awarded, and the list of goods/services, including consulting services, procured. The website should provide a link to ADB's Office of Anticorruption and Integrity (https://www.adb.org/integrity/report-violations) for reporting to ADB any allegations of corrupt, fraudulent, coercive, or collusive practices arising out of the project and project activities.

X. ANTICORRUPTION POLICY

100. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project.[24] All contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all project contractors, suppliers, consultants, and other service providers. Individuals and/or entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contracts under the project.[25]

101. To support these efforts, relevant provisions are included in the loan agreement and grant agreement and the bidding documents for the project.

XI. ACCOUNTABILITY MECHANISM

102. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's

[23] ADB. 2018. *Access to Information Policy*. Manila.
[24] Anticorruption Policy: https://www.adb.org/documents/anticorruption-policy
[25] ADB's Office of Anticorruption and Integrity website: https://www.adb.org/integrity

operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make an effort in good faith to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism. [26]

XII. RECORD OF CHANGES TO THE PROJECT ADMINISTRATION MANUAL

103. All revisions and/or updates during the course of implementation should be retained in this section to provide a chronological history of changes to implemented arrangements recorded in the PAM, including revision to contract awards and disbursement S-curves.

[26] ADB. Accountability Mechanism. https://www.adb.org/who-we-are/accountability-mechanism/main

Appendix 1: Project Components and Activities, Project Facilities, and Project Laboratory Master Plan (Framework)

1. The project has three outputs: (i) capacity, quality, and networking of reference laboratories in Bishkek and Osh cities strengthened; (ii) laboratory services based on continuous quality improvement in Chui and Osh oblasts (including Bishkek and Osh cities) developed; and (iii) patient care and biosafety capacity of hospitals in border areas and high-travel zones in Chui and Osh oblasts improved.

A. KEY STRATEGIES ADDRESSING CAPACITY AND QUALITY OF LABORATORY SERVICES

2. The core components of the project largely relate to laboratory services strengthening. To improve laboratory services in a sustainable way, the following issues need to be addressed:

(i) development and implementation of quality and safety standards for laboratories;
(ii) education and training of laboratory specialists;
(iii) support for laboratories during quality and safety standards implementation;
(iv) monitoring efficiency of laboratory services; and
(v) calculation of the cost and sustainable financing of laboratory services.

1. Development and implementation of basic quality and safety standards for laboratories

3. Kyrgyz laboratory-related legislation lacks modern and concise set of basic requirements for a functioning laboratory and a mechanism for its implementation. In world practice, this is usually achieved by licensing legislation which provides a basic set of standards and a mechanism for its reinforcement. Licensing does exist in the Kyrgyz Republic, but it is applied only to private laboratories. Also, laboratory licenses have no expiration date, which means that there is no control of continuous meeting licensing requirements. State-funded laboratories are not required by law to obtain a license. There is a quality control mechanism within Ministry of Health (MOH) called “Medical Accreditation” (MAC) which applies to all state clinical organizations, be it a hospital or a laboratory. In recent years, the requirements applicable to laboratories have been updated, but they have not been yet implemented, and mechanism of compliance control also needs improvement.

4. Biosafety and biosecurity aspects of Kyrgyz laboratories also have been governed by outdated norms. While international biosafety/security standards are more or less applied in national laboratories working with dangerous pathogens (TB-, HIV-centers, Center for Quarantine Infections and Especially Dangerous Pathogens), regular state sanitary and epidemiological surveillance (SSES) laboratories or clinical diagnostic laboratories (CDLs) usually have no access control to laboratory rooms, storage and patient records; and have poor ventilation systems, poor use of personal protective equipment (PPE), and no inventory of dangerous materials.

5. The project’s continuous quality improvement (CQI) consulting firm will need to research existing regulatory framework governing health laboratories, reveal deficiencies, and suggest needed changes. Consultants will need to consider and choose the most suitable mechanism to ensure compliance of laboratories with the national quality and safety standards (licensing, certification, or accreditation). The process should be conducted in close interaction with CLC, MOH, Kyrgyz Center for Accreditation (KCA), and WHO.

2. Education and training of laboratory specialists

6. Many aspects of laboratory performance need to be addressed by upgrade of personnel's knowledge and skills. Currently, laboratory specialists often mention insufficient access to and provision of relevant training for laboratory workforce of different levels. For instance, pre-graduate curricula for medical or laboratory doctors in the top national medical school, Kyrgyz State Medical Academy, do not offer any courses in laboratory diagnostics. University-level graduates can get qualifications in laboratory diagnostics after 9 months-long, paid out of pocket postgraduate training. After that, needed technical competencies usually are acquired at on-the-job trainings of laboratory doctors and technicians. Specialization in laboratory diagnostics and continuing education are provided by Kyrgyz State Medical Institute for Retraining and Advanced Training (KSMI). The central KSMI is located in Bishkek, and two KSMI departments offer courses in laboratory diagnostics – Department of Clinical Laboratory Diagnostics and Department of Public health with Infectious Control Courses. Another branch of the Retraining Institute is located in Osh – Southern Branch of KSMI. Laboratory courses there are offered by Interfaculty Department of Therapy Specialization with a course in Laboratory Diagnostics.

7. The project intends to upgrade reference and peripheral laboratories in terms of hardware, equipment, and computerization. Also, management of the laboratories, such as costing, budget and workload planning, networking, is to be improved. New level of performance will need better trained personnel and **continuing education programs**. First, the consultant firm will need to review available training programs in Retraining institutes and conduct survey on knowledge and skill demands. Needed areas may include operating new technologically advanced equipment, mastering new examination methods, different aspects of quality management system (QMS), (bio)risks management and waste management, sample transportation. The courses might have different versions, such as "for beginners" and "advanced". Also, there should be refresher courses in current general and priority health topics, for instance, vaccinology and immunity of infectious diseases, and control and prevention of antimicrobial resistance. The courses may have different length (e.g., from 1 day to 2 weeks) and format (online or face-to-face). Along with courses the mechanism of informing laboratories should be developed. Access to the education from outside the major cities and financial sustainability of the courses for KSMI and students should be addressed.

8. All laboratory staff are required to accumulate 250 hours of continuing education over 5 years; 175 hours out of 250 have to be courses in KSMI. The remaining hours can be participation in conferences, other courses, also online, participation in other professional activities, such as audits or MOH tasks, which can be registered with KSMI. Consultants would need to estimate how many course-hours should be available to fulfill time requirements for the laboratorians of different levels and specializations currently working in all national laboratories. Required courses should be developed with close collaboration with KSMI staff. Also, **upgrade/training of teachers**, in technical and teaching skills should be planned and carried out.

9. The reference laboratories within the project will also serve as **skill laboratories**, with classrooms and teaching laboratories where students will have hands on trainings. Staff of reference laboratories should be supported and encouraged to work as part-time teachers, as they know the practical functioning of laboratory first-hand. The consultants should plan and ensure creation of adequate skill laboratories, for that they should evaluate the needed capacity of teaching laboratories in terms of space, equipment, supplies, and teachers, so that students have sufficient access to relevant practical sessions.

10. The project will identify the competencies to be acquired and provide scholarships for qualified candidates to be trained abroad.

3. Support for laboratories during quality & safety standards implementation

11. Overall national laboratory system's quality can be guaranteed if laboratories perform in compliance with quality standards. Kyrgyz Center for Accreditation (KCA) is a member of International Laboratory Accreditation Cooperation (ILAC) for laboratory standard ISO/IEC 17025 *General requirements for the competence of testing and calibration laboratories*, but not yet for ISO 15189 *Medical laboratories: Requirements for quality and competence*. Because of that, accreditation to ISO 15189 by KCA is not yet recognized internationally. The country medical laboratory system will benefit if KCA becomes a full ILAC member for the international quality standard developed specifically for medical laboratories – ISO 15189. CQI consulting firm will examine this with the involvement of stakeholders, and develop and implement a plan of support for KCA in gaining this status.

12. Currently, seven laboratories under MOH are accredited to international standard ISO/IEC 17025. Six of those are SESS hygienic and bacteriology laboratories, which perform environment, food and consumer products testing, not samples from patients. The seventh is the national Center for control of laboratory diagnostic of infectious diseases in the fundamental and applied research institute Preventive medicine. Only two medical public laboratories are accredited to international standard ISO 15189 – virological and bacteriological laboratories of the Center for Quarantine Infections and Especially Dangerous Pathogens. No public clinical diagnostic laboratories (CDLs) are accredited to ISO 15189.

13. Raising performance quality will take time and it is unrealistic to expect that all national laboratories will at once perform according to the highest standards. Within the project, support to the laboratories in implementation of QMS should be organized in two tiers. National level laboratories, reference laboratories should be expected to become accredited according to international standards ISO/IEC 17025 or ISO 15189. Other laboratories should implement national quality and safety standards adopted with the support of the Project. Realistic timeframe for implementation of respective quality standards is 3–5 years. Effective support to a laboratory in improving its work proved to be mentoring by an external expert. Mentoring involves 3-4 visits per year (3-5 days long) to the laboratory, during which mentor assesses the current state, provides necessary on-job trainings, helps to find solutions to problems and to develop activity plans for the next period. In-between visits mentor might hold monthly meetings via internet for progress discussions and be also available for consultations, if any needed.

14. In 2018, MOH approved the Regulation for a National reference laboratory. The Regulation stipulates the roles of a National reference laboratory, which include implementation of new methods, teaching, provision of control materials, provision of external quality assessment (EQA), etc. According to the Regulation, a reference laboratory is appointed by MOH. However, so far, no reference laboratories have been formally appointed. The CQI consulting firm shall promote formal appointment of selected by MOH laboratories as reference laboratories. Formal appointments shall be accompanied by prepared budgeting of reference functions. Reference laboratories shall be provided with international mentors who bring expertise in relevant country experience on quality performance according to international standards.

15. One of the most important functions of reference laboratories is provision of EQA, usually in a form of proficiency testing (PT). This EQA is available currently in the country for some tests. Consultants/mentors will support development of EQA programs, which will include preparation

of sample panels, transportation and other logistics, communication with participants, software, and websites. In parallel to preparing for accreditation as medical or testing laboratories, reference laboratories should be assisted in preparation for accreditation to the international standard of EQA providers, ISO/IEC 17043 *Conformity assessment: General requirements for proficiency testing*.

16. Other laboratories within the project will also get support in implementing quality and safety requirements. In this case, the CQI consulting firm shall collaborate with CLC as an effective way to use local expertise and knowledge and provide to these laboratories mentoring by national laboratory experts.

17. An important factor for laboratories in keeping up with developments in the field is interactions with colleagues. To support this, the project will support twinning programs for the national laboratories with laboratories abroad. The project will select two reference laboratories and will support establishing of the twinning agreements.

4. Monitoring efficiency of laboratory services

18. The project will need metrics to assess the progress of the individual laboratories included in the project and the project impact on the performance of the national laboratory system.

19. A number of tools exist to assess national healthcare systems, to which also belong laboratories. WHO member countries are in various stages of IHR compliance and conduct self-assessment of progress in implementing IHR, using a web-based State Party Self-Assessment Annual Report (*e-SPAR*) to report on the Regulations implementation. Since 2016, it was complemented with a Joint External Evaluation (JEE) to be conducted every 3-4 years. Both tools allow cross-country comparison of laboratory system effectiveness and performance, which is part of WHO's process to help countries assess their ability to prevent, detect and respond to public health threats such as infectious disease outbreaks, as specified by the IHR.

20. Self-reported data from e-SPAR and JEE for the countries of the Region (Kazakhstan, Kyrgyz Republic, People's Republic of China, Tajikistan, Uzbekistan) had been compiled during project preparation stage. The assessment, which will need to be repeated toward the end of the project, could be carried out as a regional collaboration activity under the CAREC Health Strategy 2030. Similarly, national laboratory system assessment for the countries in the region using the national system module of LAT could be conducted as one of the regional activities of CAREC.

21. Performance assessment of individual laboratories should be done twofold. One type of assessment will be applied to the 17 laboratories within the project to monitor their progress. All these laboratories have been assessed with laboratory module of LAT before the start of the Project to obtain the baseline data. At the end of the project, the LAT assessment will be repeated in the endline survey. Also, another, more comprehensive tool should be selected for mentored laboratories and applied each mentoring visit. Consultant firm, in discussion with selected mentors, should agree on a universal tool to use for that. It could be checklist of LQSI (Laboratory Quality Stepwise Implementation) tool or of SLIPTA (Stepwise Laboratory Quality Improvement Process Towards Accreditation), or other comprehensive tool of choice. One detailed assessment tool should be selected and used to monitor performance and progress of the 17 laboratories within the project.

22. The national system will need some easily collectible performance indicators (PIs) to monitor functioning of different laboratories in the system. Consultants will develop a list of

universal laboratory PIs, such as turnaround time (TAT), timeliness, cost, number of rejected samples, etc. The list should also include universal PIs reflecting overall quality and accuracy of performed examinations:

(i) % laboratories participating in interlaboratory comparisons (ILC)/external quality assessments (EQA),
(ii) % examinations covered by ILC/EQA for each laboratory, and
(iii) % passed results of ILC/EQA for each laboratory.

23. This list should be incorporated for reporting into LIMS during LIMS implementation. Also, alternative ways to report PIs should be provided for the laboratories that lack yet LIMS. PIs for each laboratory type and level (maximum 5) should be chosen during analysis of baseline LAT results, piloted (collected and analyzed) for 1 year and then selected the ones that are informative and actionable. Which PI to choose for monitoring of performance will depend on the laboratory tasks and profile and the current state of laboratories, evaluated in the first assessment. For instance, TAT indicator is important for AMR laboratories where tests might take long time, but TAT does not have much value for CDLs where, as a rule, all blood and urine tests are done and reported within one day. Universal PIs for ILC/EQA should be used for monitoring of every type of laboratory.

5. Calculation of the cost and sustainable financing of laboratory services

24. According to the Center for e-Health, the nomenclature (list) of laboratory tests consists of 1,029 different tests and parameters carried out in clinical diagnostic and microbiological laboratories. When optimizing the network of laboratories, it is necessary to consider how the range of tests can be streamlined in order to use the available resources in the most economical and sustainable way.

25. The list should be prioritized according to clinical diagnostic significance, disease monitoring objectives, and treatment needs. Modern and relevant tests should be identified and included in clinical algorithms. It is necessary to calculate the cost of laboratory tests to evaluate the optimal package of tests, their cost and budgets for laboratory services.

26. A Working Group of 4-5 members will be established. The members of the Working Group will consist of leading specialists of CDL and laboratories of SSES, heads of laboratories and members of the CLC. International consultant, together with a group of five national experts, will be engaged to provide technical support for costing of laboratory services.

27. The working group will first agree on the optimal list of tests included in the cost calculation exercise. The costing methodology will be based on WHO costing tools, complemented and adapted to country needs. The cost per test will include the cost of human resources, infrastructure and equipment (including maintenance), reagents/consumables, quality assurance practices such as EQA.

28. The result of technical support will be the development of the necessary list of clinical diagnostic and microbiological laboratory tests, as well as the calculation of the cost of each test. The costing methodology and cost of tests calculated will be proposed to the Mandatory Health Insurance Fund (MHIF) and the MOH. These will be the basis for tariff adjustment for lab tests and updating laboratory services benefit package.

29. Support labs to prepare budgets, update payment system, monitor expenditure and utilization, etc., as part of sustainability measures.

B. PROJECT ACTIVITIES BY OUTPUTS

1. Output 1: Capacity, quality, and networking of reference laboratories in Bishkek and Osh cities strengthened.

30. Laboratory system needs to fulfill the role in disease surveillance, early detection and response, and in clinical diagnoses and identification of treatment for common diseases and conditions, which ultimately benefit neighboring countries through early warning and contribute to enhancing universal health coverage. In the context of the Kyrgyz Republic, these roles are the responsibilities of the state sanitary and epidemiological surveillance (SSES) laboratories and public clinical diagnostic laboratory (CDL) services.

31. In order to strengthen the capacity, quality and networking of laboratory services, it is recognized that reference laboratories at national and subnational level will need to be established. The project will support the following laboratories to become the leading national/subnational reference laboratories of the country.

Table A1.1: National and Subnational Reference Laboratories Supported by Project

	Reference laboratories	Project standardized name
	SSES Public Health Lab	
1	Diagnostic Laboratory (AMR), Bishkek city – national reference lab	Bacteriology SSES lab, Bishkek (AMR testing) – national reference lab
2	Diagnostic Laboratory (AMR), Osh city – subnational reference lab	Bacteriology SSES lab, Osh (AMR testing) – subnational reference lab
	Clinical Diagnostic Lab (CDL)	
1	CDL of the National Hospital (reference lab, national level)	CDL/National Hospital – national reference lab
2	CDL of the Osh Interoblast Joint Clinical Hospital (subnational reference lab)	CDL/Osh JCH – subnational reference lab

32. The project will upgrade and strengthen the capacities of the national and subnational reference laboratories, key activities will be:

(i) Promote formal recognition of selected laboratories as reference laboratories (to include into Regulation for a National reference laboratory).
(ii) Together with reference laboratories, identify their key reference functions, develop operational plans for implementation and provide support to reference laboratories to carry out these functions (documents development, banks of control materials, provision of training/EQA, etc.).
(iii) Prepare with the reference laboratories budgets for their reference functions (documents development, provision of training, EQA provision, etc.).
(iv) Establish mentoring program (international mentors) for four project reference laboratories and one non-project AMR laboratory previously supported by WHO, agree on monitoring checklists and mentoring plan, and provide mentoring in preparation for accreditation to international standards.
(v) Select a universal tool to monitor performance of the mentored laboratories within the project and collect and analyze the data annually.

(vi) Provide support to national reference laboratories during the first runs of carrying out their functions for lower level laboratories: (months 12-24).
(vii) Provision of EQA.
(viii) Provision of training.
(ix) Upgrade laboratory infrastructure, laboratory equipment, and teaching facilities – refer to para. 33 for description of civil work and equipment procurement activities.

33. **Regional and cross-border collaboration.** The project will support the reference laboratories in the following regional activities:

MOH Republic of Kazakhstan and MOH Kyrgyz Republic. 2021. Action Plan for Development of Reference Laboratories under the Economic Corridor Almaty-Bishkek for 2022-2024.

(i) **Collaborate with the ABEC project.**[1] Conduct the following on the Kyrgyz side for the National AMR Reference Laboratory:
   a. **Improving infrastructure of reference laboratories.** The project will upgrade the SSES national level AMR Diagnostic Laboratory to meet biosafety requirements through renovation of existing laboratory facilities, provision of laboratory equipment, and installation of uninterruptible power supply, among others. In addition, the project will support the SSES laboratory to be appointed as the National AMR Reference Laboratory.
   b. **Capacity building of reference laboratories.** The Bacteriology SSES lab, Bishkek (AMR testing) – national reference lab is now being mentored by WHO in preparation for accreditation. This is the best capacity building training as it is adapted to needs. This activity will be taken over by the project once the CQI and sustainable laboratory financing firm is recruited. The project will also ensure that the SSES reference lab be prioritized for overseas technical trainings.
   c. **Cooperation in the area of quality assurance and standardization of reference studies.** Several activities are planned to be included in the project. In summary, the project will make detailed baseline assessment, then gradually build quality management system and competence, monitor the progress and eventually get accreditation and maintain it:
      i. Assessment of the quality management system of reference laboratories in the Kyrgyz Republic using WHO's Laboratory Assessment Tool (LAT).
      ii. Confirmation of the competence of reference laboratories by passing accreditation, expanding the scope of accreditation and participation in international programs for external quality and conformity assessment of reference laboratories ISO 15189, 17025, 17043.
      iii. Monitoring and maintaining the quality management system of reference laboratories in the Kyrgyz Republic.
      iv. Standardization of approaches and methods for validation of reference diagnostics of antimicrobial resistance with the Bacteriology SSES lab, (AMR testing) – national reference lab in year-4 and 5.

(ii) **Collaborate within the framework of CAREC Health Strategy 2030.** The collaboration may include organizing regional conferences, trainings,

[1] MOH Republic of Kazakhstan and MOH Kyrgyz Republic. 2021. Action Plan for Development of Reference Laboratories under the Economic Corridor Almaty-Bishkek for 2022-2024.

videoconferences, or webinars via the CAREC platform, as well as conducting assessments on national laboratory system using the national module of LAT, e-SPAR, and JEE for the countries in the region. Some indicative activities may include:

a. Essential training topics such as: “Transportation of infectious material”, “National transportation for the network of laboratories”, and “International Health Regulations”.
b. Specialized webinars, such as: “Internal audits and training of internal auditors” and “Validation and verification”.
c. Broader topics for regional conferences for laboratory personnel and clinicians, such as “Prevention and control of antimicrobial resistance”, and “Prevention of hospital acquired infections”.
d. One-day meetings of lab experts and clinicians on development of protocols for laboratory examinations for diagnosis, and treatment and management of diseases (e.g., diabetes, cardiology patients, hepatitis, etc.).

(iii) **Collaborate with WHO’s BLBH.** Extend the mentor program to all the 4 AMR laboratories previously mentored under the BLBH program (3 of which are project facilities):

a. Bacteriological laboratory of Jalalabad Oblast Regional Hospital (non-project facility)
b. Bacteriology SSES lab, Bishkek (AMR testing) – national reference lab
c. Bacteriology SSES lab, Osh (AMR testing) – subnational reference lab
d. CDL of Republican Infection Diseases Hospital

2. Output 2: Laboratory services based on continuous quality improvement in Chui and Osh oblasts (including Bishkek and Osh cities) developed.

34. Central to Output 2 is the development of laboratory networks of SSES and CDL in Chui and Osh oblasts including Bishkek and Osh. Under the national and subnational reference laboratories, the laboratory networks will include a total of 6 SSES labs and 11 CDLs in the project areas.

35. During project preparation, the project has defined the laboratory master plan framework for Chui and Osh oblasts. This laboratory master plan will also form the basis for the future national laboratory master plan. The model of optimization categorizes the laboratories into:

(i) National level,
(ii) Subnational level,
(iii) Inter-district level,
(iv) Express lab, and
(v) Sample collection points (SCPs).

36. For each level of laboratory services, the master plan entails:

(i) Range of tests (lab services profile) – current and future profile, and methods of testing;
(ii) Number of tests – current and projected; and
(iii) Type of equipment – laboratory and support equipment.

37. Pilot for innovative solutions will be prepared and implemented:

(i) Optimization of available resources (pilot in Bishkek) – AMR testing provided by Republican Infectious Disease Hospital for 3 project hospitals in Bishkek (National Hospital, City Clinical Hospital Number 1, and National Center for MCH);
(ii) Outsourcing a small package of selected immunological and hormonal testing (pilot in Bishkek); and
(iii) Outsourcing transportation of specimens.

38. Based on the master plan, the restructuring, upgrading, and continuous quality improvement of laboratory networks will be achieved through the following initiatives.

39. **Strengthening governance capacity for the national laboratory system including regulation, standards, planning, financing, management, monitoring, and studies for innovative solutions.** To achieve this sub-output, the key activities will be:

(i) Conduct assessment of current quality and (bio)safety standards and norms governing laboratories and mechanisms of control of compliance.
(ii) Conduct research and consultations with CLC, representatives of MOH, KCA, WHO on optimal way to develop and implement laboratory norms.
(iii) Develop draft norms (basic quality and safety standards for laboratories), legislation and their implementation plan with involvement of stakeholders.
(iv) Circulate drafts among stakeholders, collect and incorporate feedback, develop final proposal of norms and legislation.
(v) Provide advocacy and support to respective government agencies and other stakeholders in adopting the norms and legislation.
(vi) Identify in consultations with stakeholders what support KCA needs to become full ILAC member for ISO 15189 and develop plan for these support activities (e. g. training of experts, training audits).
(vii) Perform support activities for KCA to become full ILAC member.
(viii) Select national mentors for peripheral laboratories, provide for them mentors' training, if needed, agree on monitoring checklists and mentoring plan, and provide mentoring in preparation for accreditation to national standards.
(ix) Review baseline LAT assessment of individual laboratories and compile a list of informative and actionable PI.
(x) Pilot PIs chosen for each type and level of laboratory in the project laboratories.
(xi) Carry out preparatory work and implement innovative solutions pilot concerning:
    a. Optimizing available resources for bacteriology testing.
    b. Outsourcing selected tests (in Bishkek).
    c. Outsourcing transportation of specimens (in Bishkek and Osh).

40. **Developing a laboratory system and financing plan for Chui and Osh laboratory systems with all stakeholders including support systems such as supplies and maintenance.** The activities are designed to promote awareness and practice related to enhancing sustainability of laboratory services:

(i) Support the project laboratories to develop financial forecast and financing plan. The aim is to enhance sustainability by narrowing the gap between actual cost and reimbursement for services. During project implementation, the project CQI consultant will provide support to CLC in these activities:
    a. Establish a small (4-5 members) Costing Working Group – represented by CDL and SSES lab expert members of CLC.

b. Based on the Laboratory Optimization Master Plan, agree on a list of tests to be included in the costing exercise. At the moment, the nomenclature is 1,029 types of tests.
c. **Costing methodology** – propose to use WHO costing tools which will be adapted to the country's needs. The cost of one test will include the cost of human resources, infrastructure, and equipment (including maintenance, reagents/consumable, quality practice, e.g., participation in EQA and IQA).
d. Present and obtain approval of MHIF and MOH on the costing methodology and outcome (cost of test).

(ii) Next steps, after costing of lab tests is completed:
a. Propose updated reimbursement mechanism reflecting calculated costs to MHIF. The cost of test will be compared with the current pricelist of lab tests, as a basis to advocate for adjusting the tariff that should reflect the actual cost.
b. Propose updated benefit package (selected tests). Within the context of Universal Health Coverage, the benefit packages will need to be reviewed/revised to protect the poor by enhancing the packages' responsiveness to needs.
c. Support labs to prepare budgets, update payment system, monitor expenditure and utilization (sustainability measures). The required budget for laboratory services can be estimated by projecting the costs for each test and number of tests.

41. **Upgrading and equipping laboratories based on modern quality and biosafety standards.** This will include civil work and equipment delivery, installation, training and commissioning:

(i) Civil works and renovations:
a. To support the PIU in managing the civil works, a construction supervision company (CSC) will be recruited, whereby tender documents for appointment of CSC will be prepared during TRTA.
b. Prepare description of civil works and finalize tender documentation for civil work.
c. Conduct tendering of civil works packages and contract award.
d. With support of CSC, monitor progress of civil works and compliance with environmental and social safeguards.
e. Verify payment and as-built.

(ii) Laboratory equipment upgrading:
a. Define tender packages and finalize bid documents.
b. Manage tendering process, tender evaluation, and contract award.
c. Monitor delivery, installation, technical training provided by supplier and handing over.
d. Monitor execution of warranty and post-warranty maintenance services.
e. Note: The training provided by the supplier will only cover basic training on equipment operations and troubleshooting. Additional training on the use of automated analyzers will be provided through laboratory mentoring (by the CQI consulting firm).

42. **Networking SESS and clinical diagnostic laboratories in Chui and Osh oblasts internally and with patient care and cross-border services using digital and physical**

communication systems. The project laboratories will be connected to the project hospitals through LIMS. This includes the following tasks:

(i) Determine the requirements and feasible approach for cross-border information sharing.
(ii) Prepare and implement the LIMS implementation plan:
(iii) Prepare tender document for IT hardware (during project preparation);
(iv) Define development and customization requirements - type of tests to be reported digitally, PIs to be generated from LIMS, use of PIs, cross-border information sharing, etc.;
(v) Prepare LIMS implementation plan and operational guidelines;
(vi) Software development and customization, and interface with lab equipment;
(vii) Conduct user training; and
(viii) Conduct user acceptance testing and go-live, and continue to monitor post-live performance.

43. **Developing a continuous quality improvement program for all laboratories in Chui and Osh oblasts including training module development and skills training.** CQI will be supported by the CQI consulting firm to:

(i) Review existing postgraduate training curricula for laboratorians of different levels in both branches of KSMI.
(ii) Develop needed curricula taking into account new topics (new methods, equipment, etc.), beginner and advanced courses, number of laboratory personnel in the country, capacity of teaching laboratories and teachers' capacity, financial sustainability and geographical access.
(iii) Identify teaching personnel, survey their needs in education and conduct training workshops for core teaching staff in both branches of KSMI.
(iv) Assemble working groups for respective disciplines and manage developing of needed courses.
(v) Provide support during the first runs of the new courses in the renovated facilities.
(vi) Research needs and possibilities, select candidates and organize for them relevant studies abroad supported by the project scholarships.
(vii) Research the possibilities and select and organize twinning programs for at least two reference laboratories.

3. Output 3: Patient care and biosafety capacity in hospitals in border area and high travel zones in Chui and Osh oblasts improved.

44. The output will upgrade and strengthen the capacities of hospitals with referral laboratories for preparedness, prevention and control, screening, and case management of infectious diseases in border areas and high travel zones in Chui and Osh oblasts. This will include upgrading and equipping facilities, staff training, and cross-border coordination for information exchange and outbreak prevention and control.

45. **Civil works and renovation.** Most of the project hospitals had received support from other projects for renovation of inpatient facilities including intensive care and isolation facilities to treat COVID-19 cases and/or other infectious diseases cases. According to the regulation, the hospitals are supposed to have an Emergency Department. However, some of the hospitals still have not converted their Admission Department into the Emergency Department (ED). Where applicable, the project will support the project hospitals to upgrade the existing Admission

Department into Emergency Department, within the limit of available space. Key activities for renovation will be similar to laboratory civil works outlined in para. 35.

46. **Hospital equipment upgrading.** Based on needs assessment, the project hospitals will receive medical equipment to improve their ED, diagnostic capacity including imaging and ultrasound (refer to equipment list for project hospitals). Key activities for equipment procurement will be similar to procurement of laboratory equipment outlined in para. 41.

47. Training will be provided for hospital staff in subject related to infection prevention and control.

C. SELECTED PROJECT FACILITIES (LABORATORIES AND HOSPITALS)

48. **Coverage**. The project will support upgrading and modernizing 17 laboratories (6 public health laboratories and 11 clinical diagnostic laboratories) and six hospitals (shown in Figure A1.1 and listed in Table A1.2)[2] covering around 3.7 million beneficiary population across Chui and Osh oblasts including Bishkek and Osh cities. The facilities were selected by the Coordination Laboratory Council and the Ministry of Health as a result of planned and ongoing restructuring of the national laboratory networks. The core concept is to centralize the laboratory services. The choice of facilities is not only determined by its current state, but by its role in the centralization plan including distance from capital, connectivity, catchment population, and town population, and whether it needs upgrading even if fully functioning.

[2] Final list from the confirmation letter to aide-mémoire of the inception mission (3-4 February 2022), approved by MOH deputy minister J.A. Tashiev, Ref. #01-1/2-998 dated 3 March 2022.

Figure A1.1: Selected Project Laboratories and Hospitals

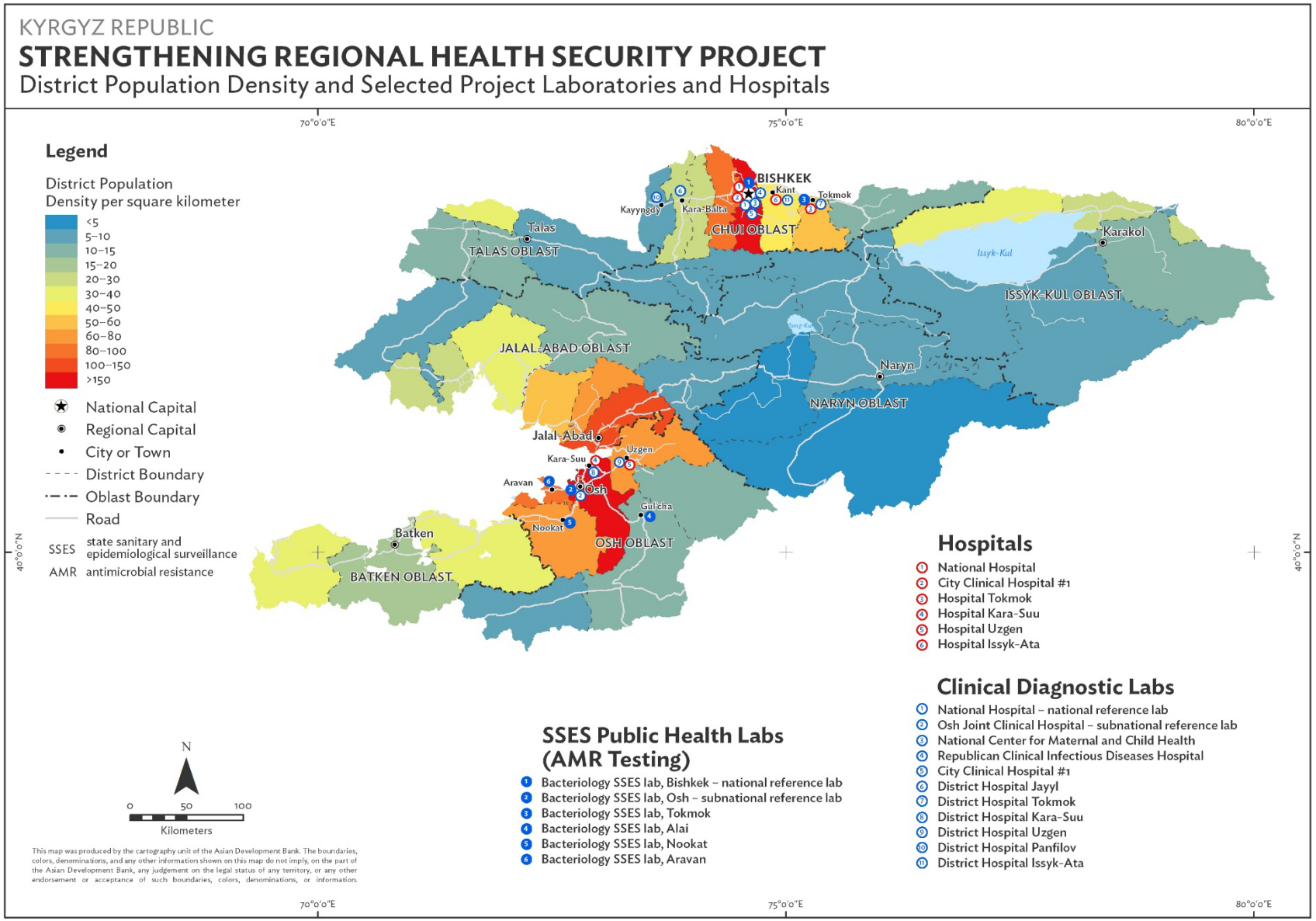


Table A1.2: List of Selected Project Laboratories and Hospitals

	Labs	Standardized name
	SSES Public Health Labs	
1	Diagnostic Laboratory (AMR), Bishkek city – national reference lab	Bacteriology SSES lab, Bishkek (AMR testing) – national reference lab
2	Diagnostic Laboratory (AMR), Osh city – subnational reference lab	Bacteriology SSES lab, Osh (AMR testing) – subnational reference lab
3	Tokmok Inter-district Center for Disease Prevention and SSES, Chui oblast	Bacteriology SSES lab (AMR testing) Tokmok
4	Alai Inter-district Center for Disease Prevention and SSES, Osh oblast	Bacteriology SSES lab (AMR testing) Alai
5	Nookat Inter-district Center for Disease Prevention and SSES, Osh oblast	Bacteriology SSES lab (AMR testing) Nookat
6	Aravan Inter-district Center for Disease Prevention and SSES, Osh oblast	Bacteriology SSES lab (AMR testing) Aravan
	Clinical Diagnostic Lab (CDL)	
1	CDL of the National Hospital (reference lab, national level)	CDL/National Hospital – national reference lab
2	CDL of the Osh Interoblast Joint Clinical Hospital (subnational reference lab)	CDL/Osh JCH – subnational reference lab
3	CDL of National Center for Maternal and Child Health (to diagnose the pediatric population)	CDL/NCMCH
4	CDL of Republican Clinical Infectious Diseases Hospital	CDL/RCIDH
5	CDL of City Clinical Hospital #1	CDL/City Clinical Hospital #1
6	CDL of Center of general medical practice of Jayyl District	CDL/GMPC Jayyl
7	CDL of Center of general medical practice Tokmok City	CDL/GMPC Tokmok
8	CDL of Center of general medical practice Kara-Suu district	CDL/GMPC Kara-Suu
9	CDL of Center of general medical practice Uzgen district	CDL/GMPC Uzgen
10	CDL of Center of general medical practice Panfilov district, Chui oblast	CDL/GMPC Panfilov
11	CDL of Center of general medical practice Issyk-Ata district, Chui oblast	CDL/GMPC Issyk-Ata
	Hospitals	
1	City Clinical Hospital #1, Bishkek	City Clinical Hospital #1
2	National Hospital, Bishkek	National Hospital
3	Center of general medical practice Tokmok town, Chui oblast	Hospital Tokmok
4	Center of general medical practice Issyk-Ata district, Chui oblast	Hospital Issyk-Ata
5	Center of general medical practice Kara-Suu district, Osh oblast	Hospital Kara-Suu
6	Center of general medical practice Uzgen district, Osh oblast	Hospital Uzgen

Source: Final list from the confirmation letter to aide-mémoire of the inception mission (3-4 February 2022), approved by MOH deputy minister J.A. Tashiev, Ref. #01-1/2-998 dated 3 March 2022.

D. LABORATORY OPTIMIZATION MASTER PLAN

49. Developing a cohesive network of laboratory services will need to look at how the laboratory services could be optimized and streamlined and the available resources that could be shared. Hence, the following outlines the laboratory optimization master plan within the project framework.

50. The Ministry of Health of the Kyrgyz Republic has approved and officially nominated with the order (Ref. #01-1/2-998 dated March 3, 2022) the healthcare organizations in Chui and Osh oblasts to be involved in the "Strengthening Regional Health Security Project" activities for the development and improvement of a laboratory service packages funded by the Asian Development Bank to assist the Kyrgyz Republic in the implementation of the "Strategy for development of laboratory services for 2016-2025 in the Kyrgyz Republic", aimed at centralizing laboratory research and improving their quality and accessibility.

51. Six antimicrobial resistance (AMR) diagnostic bacteriology laboratories under the Department of Disease Prevention and State Sanitary and Epidemiological Surveillance (SSES) and 11 clinical diagnostic laboratories (Table A1.3) were selected and nominated by the MOH to form centralized clinical diagnostic and AMR testing laboratory network in Chui and Osh oblast (including Bishkek and Osh cities), by upgrading the selected facilities, procuring essential laboratory equipment and reagents for the list of clinical diagnostic and AMR tests proposed under the project.

52. Under the proposed optimization structure, the 17 project laboratories will be assigned as: (i) national reference labs, (ii) subnational reference labs, (iii) inter-district labs, and (iv) express labs (Table A1.3).

Table A1.3: MOH Approved List of Project Laboratories in Chui and Osh Oblasts, their Type and Level

Nr	Laboratory	Level	Type of Laboratory	
	Chui oblast			
1	AMR diagnostic bacteriology **SSES, Bishkek**	National	AMR national laboratory	
2	AMR diagnostic bacteriology **SSES, Tokmok**	Inter-district	AMR laboratory	
3	National Hospital, **Bishkek**	National	CDL	
4	City Clinical Hospital No. 1, **Bishkek**	Express	CDL	
5	National Center for Maternal and Child Health, **Bishkek**	Express	CDL	
6	Republican Infectious Clinical Hospital, **Bishkek**	Express + AMR	CDL	+ AMR lab
7	Center of general medical practice, **Jayyl**	Inter-district + AMR	CDL	+ AMR lab
8	Center of general medical practice, **Tokmok**	Inter-district	CDL	
9	Center of general medical practice, **Issyk-Ata**	Express	CDL	
10	Center of general medical practice, **Panfilov**	Express	CDL	
	Osh oblast			
11	AMR diagnostic bacteriology **SSES, Osh**	Subnational	AMR subnational laboratory	
12	AMR diagnostic bacteriology **SSES, Nookat**	Inter-district	AMR laboratory	

Nr	Laboratory	Level	Type of Laboratory	
13	AMR diagnostic bacteriology **SSES, Aravan**	Inter-district	AMR laboratory	
14	AMR diagnostic bacteriology **SSES, Alai**	Inter-district	AMR laboratory	
15	Interoblast Joint Clinical Hospital, **Osh**	Subnational	CDL	+ AMR lab
16	Center of general medical practice, **Kara-Suu**	Inter-district	CDL	+ AMR lab
17	Center of general medical practice, **Uzgen**	Inter-district	CDL	+ AMR lab

Source: Adapted from the Ministry of Health of the Kyrgyz Republic.

53. **Converting manual testing laboratories at outpatient healthcare facilities into Sample Collection Points.** At present, each outpatient healthcare facility has clinical diagnostic laboratory (CDL) on-site using manual testing methods. It is proposed to close these outdated CDLs at outpatient healthcare facilities and keeping only the sample collection points (SCPs) and existing personnel (nurses, LIMS registers). This optimization process, along with introduction of a functioning sample referral system to one of the project laboratories, will ensure geographical coverage and accessibility of quality, automated, precise, and clinically-relevant tests for the vulnerable population of Chui and Osh oblasts and Bishkek and Osh cities. Under the project, around 100 lower-level laboratories will be reprofiled into SCPs via sample transportation and laboratory information management system in the two oblasts (as shown for CDLs in Figure A1.2 and for SSES laboratories in Figure A1.3).

54. **Transport routes and safety conditions**. Sample transportation will be regular, safe, and according to National guidelines.[3] Samples (biological material) are transported daily by trained couriers according to schedule. The laboratory shall have the system for tracking the samples under transportation. The couriers are provided with sufficient number of cold chain bags. The LIMS tracks the referred samples. The vehicle is equipped with a spill prevention kit, and there is a SOP for accident management. Couriers/ drivers are trained to manage/eliminate spills.

[3] Ministry of Health Kyrgyz Republic. 2017. Methodological guidelines for transportation of biological materials and specimens for laboratory testing in health care organizations of the Kyrgyz Republic. DOI: 616.94-091.5-076:656(083.131)-57.011:573.7. (In Russian)

Figure A1.2: Clinical Diagnostic Laboratory Optimization and Work Logistics

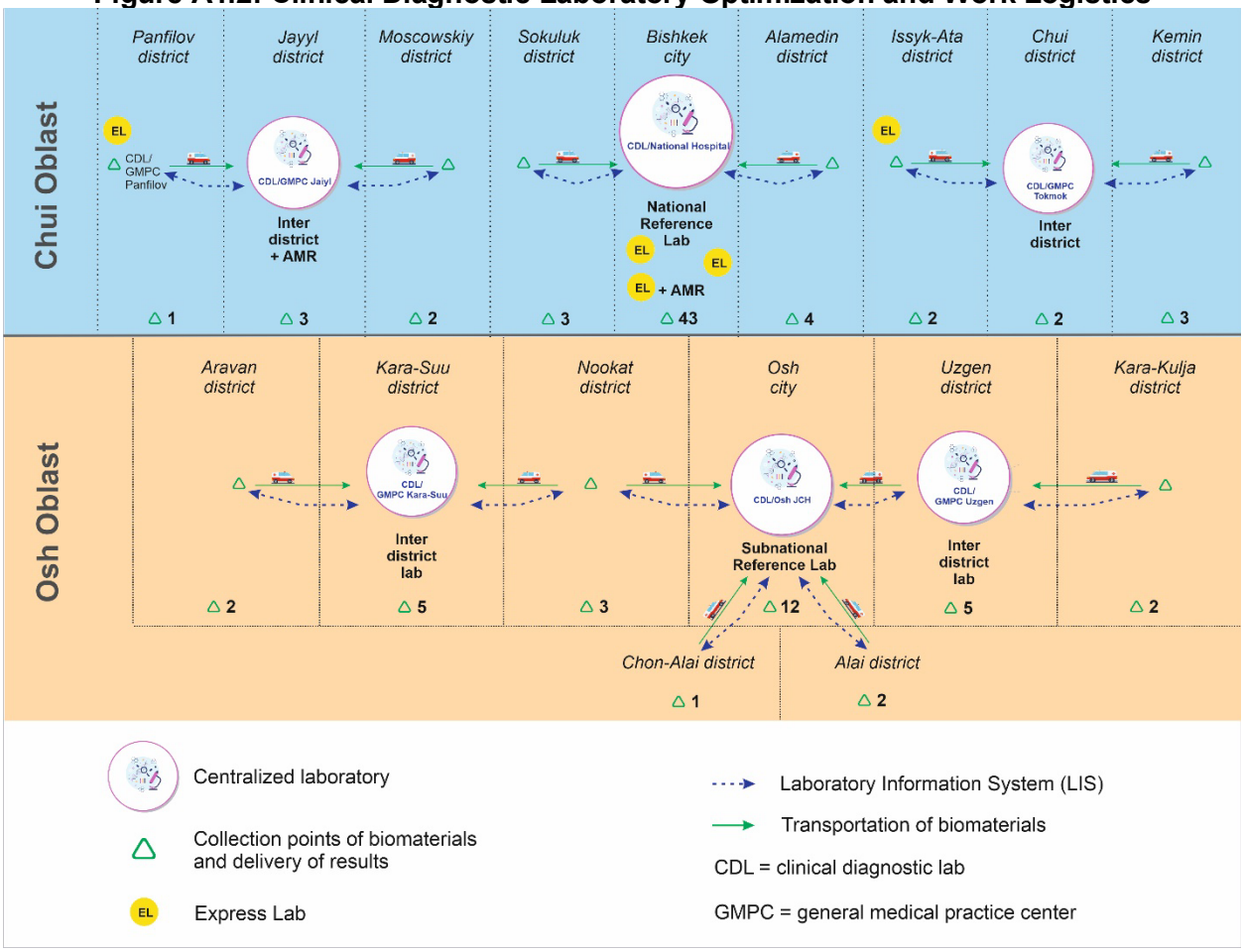
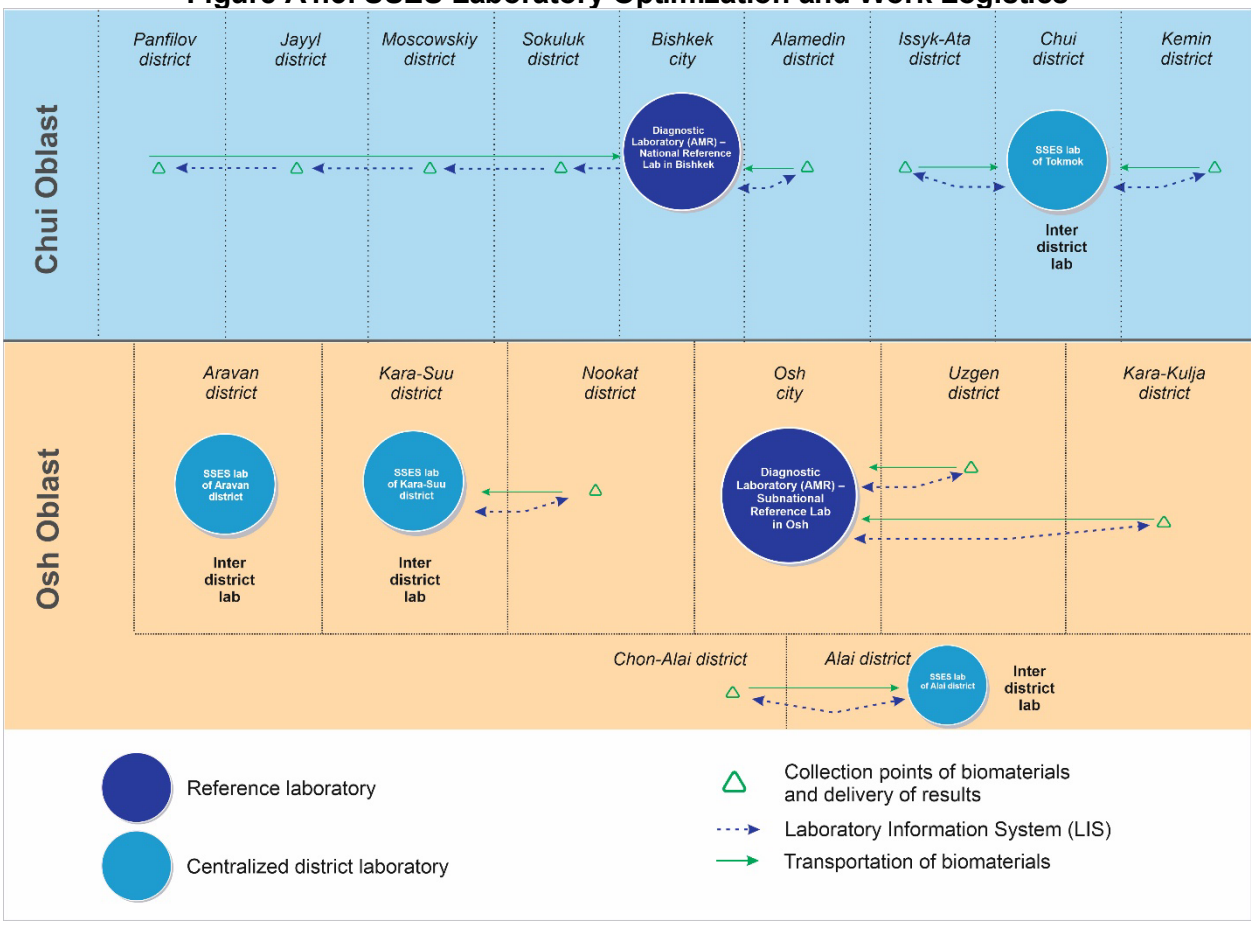


Figure A1.3: SSES Laboratory Optimization and Work Logistics



55. **Optimizing available resources.** Additionally, to make the best use of available national AMR capacities and resources, the AMR testing laboratory of the Republican Infectious Disease Hospital will be supported by the project in terms of reagents supply for AMR testing.

56. **AMR testing.** In the frame of project support, AMR testing will be performed in:

(i) All the six Project SSES laboratories including the Bishkek (SSES National AMR lab) and Osh (SSES subnational AMR lab);
(ii) CDL of Republican Infectious Clinical Hospital (Bishkek), Center of general medical practice (Jayyl), Interoblast Joint Clinical Hospital (Osh), Center of general medical practice (Kara-Suu), Center of general medical practice (Uzgen); and
(iii) AMR testing provided by the Republican Clinical Infectious Diseases Hospital will be serving the three project hospitals in Bishkek (National Hospital, City Clinical Hospital Number 1, and National Center for MCH) which are located in close proximity to each other (Figure A1.4), to optimize available resources.

Figure A1.4: Project Clinical Diagnostic Laboratories in Bishkek City - Republican Clinical Infectious Diseases Hospital will provide AMR testing to surrounding CDLs

57. The network of AMR testing can also be redirected to AMR national reference laboratory under SSES in Bishkek, with the assurance that the project laboratories (National Hospital, City Clinical Hospital Number 1, and National Center for MCH) will not be charged for the AMR testing by SSES. The project will procure bacteria identification and AST rapid workflow system for AMR testing for 5 SSES labs (except the Bacteriology SSES lab, Bishkek - national reference lab, because they have 2 relevant analyzers) and 5 CDLs:

(i) Bacteriology SSES lab, Osh (AMR testing) – subnational reference lab
(ii) Bacteriology SSES lab (AMR testing) Tokmok
(iii) Bacteriology SSES lab (AMR testing) Alai

(iv) Bacteriology SSES lab (AMR testing) Nookat
(v) Bacteriology SSES lab (AMR testing) Aravan
(vi) CDL/Osh JCH – su-national reference lab
(vii) CDL/GMPC Uzgen
(viii) CDL/GMPC Kara-Suu
(ix) CDL/GMPC Jayyl
(x) CDL Republican Clinical Infectious Diseases Hospital

58. The proposed essential packages of CDL testing analyzers per level are in Table A1.4.

Table A1.4: Proposed Essential Package of CDL Analyzers by Laboratory Level

NATIONAL LEVEL	SUB NATIONAL LEVEL	INTER-DISTRICT LEVEL	EXPRESS HOSPITAL LEVEL
1) CDL/National Hospital – national reference lab	2) CDL/Osh JCH – subnational reference lab	3) CDL/GMPC Jayyl 4) CDL/GMPC Tokmok 5) CDL/GMPC Kara-Suu 6) CDL/GMPC Uzgen	7) CDL/GMPC Panfilov 8) CDL/GMPC Issyk-Ata 9) CDL/RIDH 10) CDL/City Clinical Hospital #1 11) CDL/NCMCH
Automatic Hematology analyzers 5 diff. Automatic erythrocyte sedimentation rate analyzer Automatic biochemical analyzers (600-800 tests / hour) Protein electrophoresis analyzer Automatic coagulometer (Blood gas/electrolyte Na/K/Cl analyzer (auto up to 40 test/hour) Automatic urinary station (automatic urine sediment analyzer based on flow cytometry) Automatic immunochemiluminescent analyzer ELISA plate reader/washer or/and ELISA analyzer	Automatic Hematology analyzers 5 diff. Automatic erythrocyte sedimentation rate analyzer Automatic biochemical analyzers (600-800 tests / hour) Protein electrophoresis analyzer Automatic coagulometer (Blood gas/electrolyte Na/K/Cl analyzer (auto up to 40 test/hour) Automatic urinary station (automatic urine sediment analyzer based on flow cytometry)	Automatic Hematology analyzers 5 diff. Automatic erythrocyte sedimentation rate analyzer Automatic biochemical analyzers (200 tests / hour) Automatic coagulometer (Blood gas/electrolyte Na/K/Cl analyzer (auto up to 40 test/hour) Urine (strip) analyzer	Automatic Hematology analyzers 3 or 5 diff. Automatic erythrocyte sedimentation rate analyzer Automatic biochemical analyzers (200 tests / hour) Automatic coagulometer Blood gas/electrolyte Na/K/Cl analyzer (auto up to 40 test/hour) Urine (strip) analyzer

59. **Private sector participation.** There are possible outsourcing opportunities for: (i) outsourcing of selected immunological and hormonal tests as a small package of tests in Bishkek; and (ii) specimen transportation from sample collection points in Bishkek and Osh cities (the laboratories that have been re-profiled into sample collection points).

60. Indicative tests for outsourcing may include the following tests not offered by the public sector labs currently, the list of tests may be updated according to the needs and priority during projet implementation:

(i) Folic acid,
(ii) Chorionadotropin (HCG),
(iii) CEA - Carcioembrionic antigen,
(iv) Tumour marker CA – 125,
(v) CA 15-3,
(vi) CA 19-9,
(vii) TSH,
(viii) FT3,
(ix) FT4,
(x) Anti – TPO,
(xi) Thyroglobulin, and
(xii) Antibodies to thyroglobulin.

Appendix 2A: Terms of Reference (Construction Supervision Consulting Firm)

CONSTRUCTION SUPERVISION CONSULTANCY

A. Background

1. Within ADB-financed Strengthening Regional Health Security Project (hereafter - the project), the project's intended impact is improved public health and regional health security in the Kyrgyz Republic by developing a cohesive laboratory network and border hospital services. The outcome of the project will be enhanced coverage of effective laboratory services and border hospital services in Bishkek and Osh cities; and Chui and Osh oblasts.

2. The project supports civil work for renovation of project facilities, consisting of 17 laboratories and 6 hospitals located in Bishkek and Osh cities, as well as Chui and Osh oblasts (refer to list of project facilities in Appendix 1).

3. The project has prepared the tender documents including bill of quantity for the civil work. A consulting firm will be recruited to support the project implementation unit (PIU) in the construction supervision of the project sites.

B. Scope of Work

4. The scope of work for the construction supervision consultant (CSC) includes: (i) manage and supervise the construction and ensure compliance with the Kyrgyz Republic regulations; (ii) review construction scheduling and monitor progress; (iii) monitor compliance to environmental and social safeguard measures including the implementation of Construction Code of Practice (CCP) by the civil work contractors; (iv) verify payment; and (v) acceptance of work.

5. The civil work contractor is required to implement this CCP and will be responsible for providing implementation reports to the CSC. The contractor will be responsible on a day-to-day basis for (i) ensuring implementation of CCP, (ii) coordinating with the CSC's environment and safeguards specialist; and (iii) reporting.

6. **Detailed tasks.** The following section contains a non-exhaustive list of tasks to be performed by the CSC firm:

(i) Support in reviewing and checking of plans, documents and cost estimates submitted by the contractor for the execution of works;
(ii) Examining and approving work plans by contractor;
(iii) Verification of all technical proposals, final designs, shop drawings, construction materials and tests, and issuing of all required certificates;
(iv) Carrying out of any necessary factory inspection of plant and equipment (if required);
(v) Supervision of all civil and architectural works;
(vi) Supervision of implementation of effluent treatment action plan;
(vii) Testing and approval of material and equipment, acceptance of supplies brought to the site and supervision of installation works (final approval will be provided by the hospitals);
(viii) Measurement of the works done, during construction and upon completion of the project with assistance of the firms site staff; arrange and carry out a proper, faithful

and detailed measurements, determination and survey of completed work quantities, and calculate the value of such works;
(ix) Keeping actual records of delivery of material and handing over to installation contractors;
(x) Progress and financial control of all works;
(xi) Prompt examination and preparation of recommendations on claims issued by the contractors for extension of time and payment for extra work;
(xii) Negotiation of rates for any unscheduled items or work by the contractor, which might arise;
(xiii) Verification of contractors' invoices and issuing of interim and final certificates for payments to the contractors;
(xiv) Carrying out of necessary inspections shortly before the end of the construction period, determining the remaining works to be completed and, when these are satisfactorily completed, issue the Certificate of Substantial Completion (preliminary acceptance);
(xv) Responsible for preliminary and final acceptance of executed works;
(xvi) Supervision of the commissioning of the executed works;
(xvii) Verification of the contractors' as-built documents and coordination of submittal of hard copies and as data files in the requested number (three sets);
(xviii) Establishment of records and submission of certified as-built drawings (based on contractors' drawings) as hard copies and data files to the hospitals and ADB;
(xix) Submission of required technical reports within the periods as detailed;
(xx) Enforce the defects liability period and carry out of a thorough inspection of all buildings and works completed prior to the lapse of the defects liability period;
(xxi) Supervision of any remedial works required to be completed by the contractor;
(xxii) Issuing of a Certificate of Final Completion (final acceptance) once all works are completed.

7. Construction management and supervision of works shall be performed on a continuous basis by the implementation consultant on-site. The firm shall be responsible for ensuring environmental and social safeguards, including:
(i) Supervision of implementation of environmental and social conditions of permits;
(ii) Supervision of application and compliance with the Kyrgyz health and safety standards for construction and good practice (including inspection and supervision of proper disposal of construction wastes);
(iii) Inspection and supervision of compliance with labour laws and regulations with respect to working conditions;
(iv) Follow-up on the resolution of any complaints or grievances in relation to construction health and safety, labour conditions or environmental pollution, land issues, disturbance of population, etc.

8. The Implementation Consultant shall provide regular reporting on above items in progress reports to PIU and immediate reporting of significant accidents and incidents (work site, third parties).

C. Qualifications of the consultancy firm and specifications for key personnel

9. The firm should have at least 10 years of experience in building design, with proven technical expertise in (i) construction supervision, (ii) project scheduling and (iii) monitoring of compliance to environmental and social safeguard measures. The firm must be familiar with

Kyrgyz construction law, building code, climate change resilient design standard, fire code, electrical and mechanical codes, as well as environmental and social safeguards standards.

10. The consulting firm must submit the curriculum vitae (CV) of all experts. All positions must be included and budgeted for in the financial proposal and be consistent with the person-month allocation.

11. **Personnel.** The consultancy services shall be rendered as a national expert assignments. The firm must demonstrate that it has suitably qualified and experienced experts among its key personnel, who have the appropriate level of academic and professional qualifications and expertise gained in similar projects to recognize and to deliver with respect to the management requirements, both, the technical requirements and the environment, social, health and safety aspects of the project.

12. The firm shall include in its team amongst others at least the staff with qualified expertise and experts indicated in the table below.

Position **Task/ Responsibility**	**Qualification Requirement / Expertise**	**Person-months (pm)**
National Engineer 1 (site supervisor - Chui) Supervise construction works at the oblast	Engineer with experience in health sector and at least 8 years of experience in the management of similar programs in the design and construction of health infrastructure. Proven ability to manage and administer supervision aspects of projects of this nature. Sound understanding of hospital/laboratory operations. Experience in ADB or World Bank procurement regulations preferable.	12pm
National Engineer 2 (site supervisor - Osh) Supervise construction works at the oblast	Engineer with experience in health sector and at least 8 years of experience in the management of similar programs in the design and construction of health infrastructure. Proven ability to manage and administer supervision aspects of projects of this nature. Sound understanding of hospital/laboratory operations. Experience in ADB or World Bank procurement regulations preferable.	12pm
National Environmental Safeguard Specialist 1 (Chui) Provide technical assistance and support to the PIU in carrying out their responsibilities for Environmental Management Plan implementation, monitoring and reporting and safeguard documentation in terms of:	Preferred postgraduate degree in environmental science, environmental engineering, urban planning or equivalent. 7 years' experience in preparing or monitoring the implementation of environmental safeguards of donor-funded projects. Familiar with working ethos and practices of the country and ADB Safeguard Policy Statement requirements.	9pm

Position Task/ Responsibility	Qualification Requirement / Expertise	Person-months (pm)
• On-site monitoring and reporting including checking Grievance Redress Mechanism is functioning, • Environmental document reviews and delivery, • Consultation and communication; and • Training/capacity building/awareness raising on environmental safeguard issues and requirements.	Experience with health facilities and waste management. Experience with related projects financed by multilateral development agencies is preferred.	
National Environmental Safeguard Specialist 2 (Osh) Provide technical assistance and support to the PIU in carrying out their responsibilities for Environmental Management Plan implementation, monitoring and reporting and safeguard documentation in terms of: • On-site monitoring and reporting including checking Grievance Redress Mechanism is functioning, • Environmental document reviews and delivery, • Consultation and communication; and • Training/capacity building/awareness raising on environmental safeguard issues and requirements.	Preferred postgraduate degree in environmental science, environmental engineering, urban planning or equivalent. 7 years' experience in preparing or monitoring the implementation of environmental safeguards of donor-funded projects. Familiar with working ethos and practices of the country and ADB Safeguard Policy Statement requirements. Experience with health facilities and waste management. Experience with related projects financed by multilateral development agencies is preferred.	9pm

D. Timing and Duration

13. **Duration.** The firm's services shall be scheduled in accordance with the general timeframe of a period of 12 months. The mobilization period of the firm is one month.

14. **Commencement date and period of execution.** The intended commencement date of the services is scheduled for the first quarter of 2023. The total duration of the consulting services is 12 months covering the overall timeframe foreseen for construction activities of the project. It is anticipated that the tendering and contracting of construction services will take about 6 months. The defects liability period of 12 months post commissioning of facilities will be imposed. The process for the procurement and installation of equipment will take place in parallel to the construction activities.

15. The assistance during the defects liability period and closure of project shall address all post-construction activities up to the final acceptance of works and issuance of the performance certificate. The firm shall carry out one final inspection during the defects liability period in order to ensure the execution of all remedial works by the Contractor. On expiry of the defects liability period, the firm shall assist the hospitals in issuing a Certificate confirming that the

constructions/installations were completed successfully in accordance with the specified performance level (performance certificate). During closure of the project, the firm shall provide inputs and data for the project completion report.

E. Deliverables

16. **Reporting and deliverables.** The consultant will submit the below mentioned reports. All documents (reports, plans and drawings) have to be provided in digital format and additionally converted into PDF-format. Time for comments and approval shall be up to two weeks after submission. Final reports shall be submitted 1 week after receiving comments on the draft.

Report	**Delivery**	
Assignment Planning Report (draft)	1	Month after commencement
Progress Reports	-	Every month after commencement within 5 working days from the end of the respective month
Completion Report	<1	month after closure of the works/ procurement contract(s) (after issuance of all provisional acceptance certificates)
Final Project Report - Draft	1	month after closure of all works and after Defect Liability Period

17. In general, the reporting requirements are an essential part of proper and transparent contract and project monitoring and as such are to be elaborated and quality-assured in a way that both senior and executive levels of the contracting parties are conveniently provided with concise, reliable, sound and relevant data and analysis. A qualified presentation with maps, tables, graphs, and photographs is preferred over long-winded narrative elaborations.

Appendix 2B: Terms of Reference (CQI and Sustainable Laboratory Financing Firm)

CONTINUOUS QUALITY IMPROVEMENT & SUSTAINABLE LABORATORY FINANCING CONSULTANCY

A. Background

1. Laboratory services are essential to robust health systems and crucial to improving patient care and public health, contributing to disease prevention, surveillance, screening, diagnosis, and treatment. There are more than 300 laboratories in the Kyrgyz Republic including a range of public health laboratories under the State Sanitary and Epidemiological Services (SSES), and public and private clinical diagnostic laboratories (CDLs).

2. Authorities, such as Ministry of Health (MOH), and laboratory professionals who formed Coordination Laboratory Council (CLC) recognized that laboratory system needs attention and improvement in order to provide high-quality services for healthcare and surveillance and to fulfill the country obligations stated in International Health Regulations (IHR). Many health laboratories are not up to modern quality and safety requirements. The national laboratory system is affected by internal fragmentation and limited interaction within networks. There is no overall structure for laboratory services resulting in gaps and overlaps in services of various providers, causing inefficiencies and higher costs. Very few laboratories have computerized Laboratory Information Management System (LIMS). There is a need to establish and/or scale up the sample referral system and connecting standalone LIMS into a centralized network which will serve as the basis for timely detection of outbreaks and cross-border information sharing. The education program for laboratory specialists is also fragmented, with quality improvement depending on laboratory-specific postgraduate training and on-the-job skilling. Continuing professional education and licensing systems are in the early stages.

B. Project Description

3. The Strengthening Regional Health Security Project (the project) builds upon investments made in the last two decades for health system strengthening of Kyrgyz Republic.

4. One of the project goals is to support development of adequate, equitable, and efficient laboratory services that operate according to international quality and safety principles. This will add value to improving patient care, public health and health security in terms of disease prevention, surveillance, screening, diagnosis and treatment. Within the project framework, strengthening of the laboratory services is piloting in two Kyrgyz regions (oblasts), Chui and Osh. The approach includes strengthening of reference laboratories within respective networks of SSES laboratories and CDLs and supporting development of these networks. The project addresses public health and regional health security by improving not only the capacity and quality of laboratory services, but also laboratory networking and governance of the national laboratory system, as well as addressing the vulnerability of the border communities to health risk by investing in border hospitals.

5. The project has three outputs: (i) capacity, quality, and networking of reference laboratories in Bishkek and Osh cities strengthened; (ii) laboratory services based on continuous quality improvement in Chui and Osh oblasts (including Bishkek and Osh cities) developed; and

(iii) patient care and biosafety capacity of hospitals in border areas/ high travel zones in Chui and Osh oblasts improved.

6. The following 17 laboratories are included in the project:

SSES laboratories:		**Place**	**Oblast**
1.	National reference laboratory	Bishkek	Chui
2.	Bacteriology laboratory, inter-district SSES Center	Tokmok	Chui
3.	Subnational reference laboratory	Osh	Osh
4.	Bacteriology laboratory, inter-district SSES Center	Alai	Osh
5.	Bacteriology laboratory, inter-district SSES Center	Nookat	Osh
6.	Bacteriology laboratory, SSES Center	Aravan	Osh
CDLs of the following medical facilities:			
1.	National Hospital (national reference laboratory)	Bishkek	Chui
2.	City Clinical Hospital No. 1	Bishkek	Chui
3.	Republican Infectious Clinical Hospital	Bishkek	Chui
4.	National Center for Maternal and Child Health	Bishkek	Chui
5.	General Practice Center (GPC)	Zhail	Chui
6.	GPC	Tokmok	Chui
7.	GPC (express laboratory)	Panfilov district	Chui
8.	GPC	Issyk-Ata district	Chui
9.	Osh Interregional Clinical Hospital (subnational level)	Osh	Osh
10.	GPC	Kara-Suu	Osh
11.	GPC	Uzgen	Osh

C. Scope of Work and Tasks of the Consulting Services

7. It is expected that the consulting services will be predominantly supporting the activities related to outputs 1 and 2 of the project.

8. To improve laboratory services in a sustainable way, the following issues need to be addressed:

(i) Development and implementation of quality and safety standards for laboratories;
(ii) Education and training of laboratory specialists;
(iii) Support for laboratories during quality & safety standards implementation;
(iv) Monitoring efficiency of individual laboratory services; and
(v) Calculation of the cost and sustainable financing of laboratory services.

1. Development and implementation of basic quality and safety standards for laboratories

9. Kyrgyz laboratory-related legislation lacks modern and concise set of basic requirements for a functioning laboratory and a mechanism for its implementation. In world practice, this is usually achieved by licensing legislation which provides a basic set of standards and a mechanism for its reinforcement. Licensing does exist in Kyrgyz Republic but it is applied only to private laboratories. Also, laboratory licenses have no expiration date, which means that there is no control of continuous meeting licensing requirements. State-funded laboratories are not required by law to obtain a license. There is a quality control mechanism within MOH called

"Medical Accreditation" (MAC) which applies to all state clinical organizations, be it a hospital or a laboratory. In the last years the requirements applicable to laboratories have been updated, but they have not yet been implemented, and mechanism of compliance control also needs improvement.

10. Biosafety and biosecurity aspects of Kyrgyz laboratories also have been governed by outdated norms. While international biosafety/security standards are more or less applied in national laboratories working with dangerous pathogens (TB-, HIV-centers, Center for Quarantine Infections and Especially Dangerous Pathogens), regular SSES laboratories or CDLs usually have no access control to laboratory rooms, storage and patient records, and have poor ventilation systems, poor use of personal protective equipment (PPE), and no inventory of dangerous materials.

11. The consulting firm will need to examine the existing regulatory framework governing health laboratories, reveal deficiencies, and suggest needed changes. Consultants will need to consider and choose the most suitable mechanism to ensure compliance of laboratories with the national quality and safety standards (licensing, certification or accreditation). The process should be conducted in close interaction with CLC, MOH, Kyrgyz Center for Accreditation (KCA) and World Health Organization (WHO).

2. Education and training of laboratory specialists

12. Many aspects of laboratory performance need to be addressed by upgrade of personnel's knowledge and skills. Currently, laboratory specialists often mention insufficient access to and provision of relevant training for laboratory workforce of different levels. For instance, pre-graduate curricula for medical or laboratory doctors in the top national medical school, Kyrgyz State Medical Academy, do not offer any courses in laboratory diagnostics. University-level graduates can get qualifications in laboratory diagnostics after 9 months-long, paid out of pocket postgraduate training. After that, needed technical competencies usually are acquired at on-the-job trainings of laboratory doctors and technicians. Specialization in laboratory diagnostics and continuing education are provided by Kyrgyz State Medical Institute for Retraining and Advanced Training (KSMI). The central KSMI is located in Bishkek, and two KSMI departments offer courses in laboratory diagnostics – Department of Clinical Laboratory Diagnostics and Department of Public health with Infectious Control Courses. Another branch of the Retraining Institute is located in Osh – Southern Branch of KSMI. Laboratory courses there are offered by Interfaculty Department of Therapy Specialization with a course in Laboratory Diagnostics.

13. The project intends to upgrade reference and peripheral laboratories in terms of hardware, equipment and computerization. Also, management of the laboratories, such as costing, budget and workload planning, networking, is to be improved. New level of performance will need better trained personnel and **continuing education programs**. First, the consultant firm will need to review available training programs in Retraining Institutes and conduct survey on knowledge and skill demands. Needed areas may include operating new technologically advanced equipment, mastering new examination methods, different aspects of quality management system (QMS), (bio)risks management, sample transportation. The courses might have different versions, such as "for beginners" and "advanced". Also, there should be refresher courses in current general and priority health topics, for instance vaccinology and immunity of infectious diseases, control and prevention of antimicrobial resistance. The courses may have different length (e.g., from 1 day to 2 weeks) and format (online or face-to-face). Along with courses the mechanism of informing laboratories should be developed. Access to the education from outside the major cities and financial sustainability of the courses for KSMI and students should be addressed.

14. All laboratory staff are required to accumulate 250 hours of continuing education during 5 years. 175 hours out of 250 have to be courses in KSMI. The remaining hours can be participation in conferences, other courses, also online, participation in other professional activities, such as audits or MOH tasks, which can be registered with KSMI. Consultants would need to estimate how many course-hours should be available to fulfill time requirements for the laboratorians of different levels and specializations currently working in all national laboratories. Required courses should be developed with close collaboration with KSMI staff. Also, **upgrade/training of teachers**, in technical and teaching skills should be planned and carried out.

15. The reference laboratories within the project will also serve as **skill laboratories**, with classrooms and teaching laboratories where students will have hands on trainings. Staff of reference laboratories should be supported and encouraged to work as part-time teachers, as they know the practical functioning of laboratory first-hand. The consultants should plan and ensure creation of adequate skill laboratories, for that they should evaluate the needed capacity of teaching laboratories in terms of space, equipment, supplies, and teachers, so that students have sufficient access to relevant practical sessions.

16. Consulting firm will survey the personnel of the laboratories in the project in respect to their technical and management competencies lacking or in need of improvement. In parallel, consultants will note other personnel characteristics (available languages, knowledge level, age group) relevant for this part of the project. On the basis of this survey, consultants will research and select possibilities to train abroad for identified competencies, compile a list of requirements to qualify for the scholarships in support of the trainings, openly advertise the training possibilities and criteria for selection, select candidates, and support organization of the trainings for four persons.

3. Support for laboratories during quality & safety standards implementation

17. Overall national laboratory system's quality can be guaranteed if laboratories perform in compliance with quality standards. Kyrgyz Center for Accreditation (KCA) is a member of International Laboratory Accreditation Cooperation (ILAC) for laboratory standard ISO/IEC 17025 *General requirements for the competence of testing and calibration laboratories*, but not yet for ISO 15189 *Medical laboratories: Requirements for quality and competence*. Because of that, accreditation to ISO 15189 by KCA is not yet recognized internationally. The country medical laboratory system will benefit if **KCA becomes a full ILAC member** for the standard developed specifically for medical laboratories – ISO 15189. Consultants should research this topic with involvement of stakeholders and propose a plan of support for KCA in gaining this status.

18. Currently, seven laboratories under MOH are accredited to international standard ISO/IEC 17025. Six of those are SESS hygienic and bacteriology laboratories, which perform environment, food and consumer products testing, not samples from patients. The seventh is the national Center for control of laboratory diagnostic of infectious diseases in the fundamental and applied research institute Preventive medicine. Only two medical public laboratories are accredited to international standard ISO 15189 – virological and bacteriological laboratories of the Center for Quarantine Infections and Especially Dangerous Pathogens. No public clinical diagnostic laboratories (CDLs) are accredited to ISO 15189.

19. Raising performance quality will take time and it is unrealistic to expect that all national laboratories will at once perform according to the highest standards. Within the project, support to the laboratories in implementation of QMS should be organized in two tiers. National-level

laboratories, reference laboratories should be expected to become accredited according to international standards ISO/IEC 17025 or ISO 15189. Other laboratories should implement national quality and safety standards adopted with the support of the project. Realistic timeframe for implementation of respective quality standards is 3–5 years. Effective support to a laboratory in improving its work proved to be mentoring by an external expert. **Mentoring** involves 3-4 visits per year (3-5 days long) to the laboratory, during which mentor assesses the current state, provides necessary on-job trainings, helps to find solutions to problems and develop activity plans for the next period. In-between visits mentor might hold monthly meetings via internet for progress discussions and be also available for consultations, if needed. In addition to the 4 project references (national and subnational), the mentoring program will extend to include all the 4 AMR laboratories previous mentioned under WHO's BLBH (3 of which are project facilities):

(i) Bacteriological laboratory of Jalalabad Oblast Regional Hospital (non-project facility)
(ii) Bacteriology SSES lab, Bishkek (AMR testing) – national reference lab
(iii) Bacteriology SSES lab, Osh (AMR testing) – subnational reference lab
(iv) CDL of Republican Infection Diseases Hospital

20. In total there will be 6 laboratories to be mentored by the international mentor(s): 4 as mentioned above plus the following 2:

(i) CDL of the National Hospital (reference lab, national level)
(ii) CDL of the Osh Interoblast Joint Clinical Hospital (subnational reference lab)

21. In 2018, MOH approved Regulation for a **National reference laboratory**. The Regulation stipulates the roles of National reference laboratory, which include implementation of new methods, teaching, provision of control materials, provision of external quality assessment (EQA), etc. According to the Regulation, a reference laboratory is appointed by MOH. However, so far, only one reference laboratories have been formally appointed. The CQI consulting firm shall promote **formal appointment of selected by MOH** laboratories as reference laboratories. Formal appointments shall be accompanied by prepared budgeting of reference functions. Reference laboratories shall be provided with **international mentors** who bring expertise in relevant country experience on quality performance according to international standards.

22. One of the most important functions of reference laboratories is **provision of EQA**, usually in a form of proficiency testing (PT). This EQA is available currently in the country for some tests. Consultants/mentors will support development of EQA programs, which will include preparation of sample panels, transportation and other logistics, communication with participants, collection and analysis of results, software and websites. In parallel to preparing for accreditation as medical or testing laboratories, reference laboratories should be assisted in preparation for accreditation to the international standard of EQA providers, ISO/IEC 17043 *Conformity assessment: General requirements for proficiency testing*.

23. **Other laboratories within the project** will also get support in implementing quality and safety requirements. In this case, the CQI consulting firm shall collaborate with CLC as an effective way to use local expertise and knowledge and provide to these laboratories **mentoring by national laboratory experts**.

24. An important factor for laboratories in keeping up with developments in the field is interactions with colleagues. To support this, the project will support twinning programs for the national laboratories with laboratories abroad. The project will select two reference laboratories within the project and the CQI consulting firm shall research – interaction with which laboratory abroad will be most suitable and beneficial. The CQI consulting firm will support establishing of

the twinning agreements, developing the plan for shared activities, and plan implementation during the run of the project.

4. Monitoring efficiency of laboratory services

25. The project will need metrics to assess the progress of the individual laboratories included in the project and the project impact on the performance of the national laboratory system.

26. A number of tools exist to assess national healthcare systems, to which also belong laboratories. WHO member countries are in various stages of IHR compliance and conduct self-assessment of progress in implementing IHR, using a web-based State Party Self-Assessment Annual Report (e-SPAR) to report on the Regulations implementation. Since 2016, it was complemented with a Joint External Evaluation (JEE) to be conducted every 3-4 years. Both tools allow cross-country comparison of laboratory system effectiveness and performance, which is part of WHO's process to help countries assess their ability to prevent, detect and respond to public health threats such as infectious disease outbreaks, as specified by the IHR.

27. The self-reported data from e-SPAR and JEE for the countries of the Region (Kazakhstan, Kyrgyz Republic, People's Republic of China, Tajikistan, Uzbekistan) had been compiled during project preparation. The assessment, which will need to be repeated toward the end of the project, could be carried out as a regional collaboration activity under the CAREC Health Strategy 2030. Similarly, national laboratory system assessment for the countries in the region using the national system module of LAT could be conducted as one of the regional activities under CAREC.

28. Performance assessment of individual laboratories should be done twofold. One type of assessment will be applied to the 17 laboratories within the Project to monitor their progress. All these laboratories have been assessed with laboratory module of LAT before the start of the Project to obtain the baseline data. Also, another, more comprehensive tool should be selected for mentored laboratories and applied each mentoring visit. Consultant firm, in discussion with selected international and national mentors, should agree on a universal tool to use for that. It could be checklist of LQSI (Laboratory Quality Stepwise Implementation) tool or of SLIPTA (Stepwise Laboratory Quality Improvement Process Towards Accreditation), or other comprehensive tool of choice. One detailed assessment tool should be selected and used to monitor performance and progress of the 17 laboratories within the project.

29. The national system will need some easily collectible performance indicators (PI) to monitor functioning of different laboratories in the system. Consultants will develop a list of laboratory PIs, such as turnaround time (TAT), timeliness, cost, number of rejected samples, etc. The list should also include universal PIs reflecting overall quality and accuracy of performed examinations:

(i) % laboratories participating in interlaboratory comparisons (ILC)/external quality assessments (EQA)
(ii) % examinations covered by ILC/EQA for each laboratory
(iii) % passed results of ILC/EQA for each laboratory.

30. This list should be incorporated for reporting into LIMS during LIMS implementation. Also, alternative ways to report PIs should be provided for the laboratories that lack yet LIMS. PIs for each laboratory type and level (maximum 5) should be chosen during analysis of baseline LAT results, piloted (collected and analyzed) for 1 year and then selected the ones that are informative and actionable. Which PI to choose for monitoring of performance will depend on the laboratory tasks and profile and the current state of laboratories, evaluated in the first assessment. For

instance, TAT indicator is important for AMR laboratories where tests might take long time, but TAT does not have much value for CDLs where, as a rule, all blood and urine tests are done and reported within one day. Universal PIs for ILC/EQA should be used for monitoring of every type of laboratory.

5. Calculation of the cost and sustainable financing of laboratory services

31. According to the Center for e-Health, the nomenclature (list) of laboratory tests consists of 1,029 different tests and parameters carried out in clinical diagnostic and microbiological laboratories. When optimizing the network of laboratories, it is necessary to consider how the range of tests can be streamlined in order to use the available resources in the most economical and sustainable way.

32. The list should be prioritized according to clinical diagnostic significance, disease monitoring objectives, and treatment needs. Modern and relevant tests should be identified and included in clinical algorithms. It is necessary to calculate the cost of laboratory tests to evaluate the optimal package of tests, their cost and budgets for laboratory services.

33. A Working Group of 4-5 members will be established. The members of the Working Group will consist of leading specialists of CDL and laboratories of SSES, heads of laboratories and members of the CLC. International consultant, together with a group of five national experts, will be engaged to provide technical support for costing of laboratory services.

34. The working group will first agree on the optimal list of tests included in the cost calculation exercise. The costing methodology will be based on WHO costing tools, complemented and adapted to country needs. The cost per test will include the cost of human resources, infrastructure and equipment (including maintenance), reagents/consumables, quality assurance practices such as EQA.

35. The result of technical support will be the development of the necessary list of clinical diagnostic and microbiological laboratory tests, as well as the calculation of the cost of each test. The costing methodology and cost of tests calculated will be proposed to the Mandatory Health Insurance Fund (MHIF) and the MOH. These will be the basis for tariff adjustment for lab tests and updating laboratory services benefit package.

36. Support labs to prepare budgets, update payment system, monitor expenditure and utilization, etc., as part of sustainability measures.

D. Qualifications of Consulting Firm and Key Consultants

1. Consultant Qualifications

37. The firm shall have at least 5 years' experience in implementing quality management system in laboratories. International firms may associate with local firms to provide sustainable changes in laboratory performance. Required competencies are in healthcare laboratories field, technical aspects, quality and safety norms, laboratory networks operation.

38. The firm should be able to involve experts in other fields, such as in healthcare-related legislation, financial planning in healthcare, education. The firm should be able to establish reliable interaction and collaboration with stakeholders of the project, such as MOH, KCA, WHO, CLC.

2. Terms of References for Key Staff

Key positions	Qualifications
1. Quality and safety standards development & implementation	**Essential Qualifications:** Master's level degree (or above) in laboratory science or health related field. At least five years of practical and operational application and management of laboratory services, laboratory diagnosis of communicable/non-communicable diseases at the national and international levels. Experience in providing trainings in quality and biorisks management and implementation. **Experience desirable:** Previous experience establishing collaborations and partnerships in healthcare, work in/with recognized humanitarian organizations, international institutions or nongovernmental organizations, particularly in developing countries. **Skills/knowledge:** Excellent knowledge of English. Preferably fluent in Russian.
2. Training curricula development including waste management module for laboratories	**Essential Qualifications:** Master's level degree (or above) in laboratory science, or health related field. At least five years of practical and operational application and management of laboratory services, laboratory diagnosis of communicable/non-communicable diseases at the national and international levels. Experience in developing postgraduate training curricula for laboratory services and skills training. **Experience desirable:** Previous experience establishing collaborations and partnerships in healthcare, work in/with recognized humanitarian organizations, international institutions or nongovernmental organizations, particularly in developing countries. **Skills/knowledge:** Excellent knowledge of English. Preferably fluent in Russian.
3. Monitoring efficiency of the national laboratory system and individual laboratories	**Essential Qualifications:** Master's level degree (or above) in laboratory science, public health or health related field. At least five years of monitoring national and individual laboratory services. **Experience desirable:** Previous experience establishing collaborations and partnerships in healthcare, work in/with recognized humanitarian organizations, international institutions or nongovernmental organizations, particularly in developing countries. **Skills/knowledge:** Excellent knowledge of English. Preferably fluent in Russian.
4. Support and mentoring labs	**Essential Qualifications:** Master's level degree (or above) in laboratory science or health related field. At least five years of practical and operational application and management of laboratory services, laboratory diagnosis of communicable/non-

Key positions	Qualifications
	communicable diseases at the national and international levels. Experience in providing trainings in quality and biorisks management and implementation, and mentoring of laboratories. **Experience desirable:** Previous experience establishing collaborations and partnerships in healthcare, work in/with recognized humanitarian organizations, international institutions or nongovernmental organizations, particularly in developing countries. **Skills/knowledge:** Excellent knowledge of English. Preferably fluent in Russian.
5. Costing and sustainable financing of lab services	**Essential Qualifications:** Postgraduate degree in laboratory science or related discipline, at least eight years of experience in planning or managing health laboratories, and work experience with the Coordination Laboratory Council (CLC) of the Kyrgyz Republic. (Note: The national members of the Costing Working Group (CWG) are fine national experts, leading specialists of clinical diagnostic and State Sanitary and Epidemiological Surveillance laboratories, laboratory managers, and members of the CLC.) **Experience desirable:** Previous experience with WHO on WHO costing tool methodology and be familiar with the Kyrgyz laboratory system structure and situation. **Skills/knowledge:** Excellent knowledge of English. Preferably fluent in Russian to facilitate and coordinate work of Costing Working Group without interpretation needed.

E. Institutional Arrangements

39. The firm will report to the PIU of the Project.

40. **PIU's Input and Counterpart Personnel.** PIU's inputs include: (i) services, facilities and property to be made available to the Consultant, the PIU will provide background document of the project and technical inputs as needed; and (ii) professional and support counterpart personnel to be assigned by PIU to the Consultant's team: monitoring and evaluation expert, training coordination expert, laboratory expert of PIU will be the counterpart personnel of the assignment.

F. Timing and Duration

41. The project will be completed on 30 September 2027. The consulting firm is tentatively scheduled to be engaged from Q2 2023 through Q3 2027. The selected firm will follow the original time schedule of the project for all activities stipulated in the contract. These may be altered only at the request of the PIU when deemed necessary.

G. Deliverables

42. All tasks specified in Section C on the Scope of Work are to be adhered to in the specific timeline without fail. Failure or delays must be explained in writing to the PIU. An indicative reporting timetable is provided the table below.

Summary of Major Outputs and Activities

Component	Activity	Output and deliverables	Estimated Timeframe (from commencement)
1. Development and implementation of basic quality and safety standards for laboratories	(i) Conduct assessment of current quality and (bio)safety standards and norms governing laboratories and mechanisms of control of compliance	• Inventory of relevant regulatory items and report describing deficiencies	Months 1-2
	(ii) Conduct research and consultations with CLC, representatives of MOH, KCA, WHO on optimal way to develop and implement laboratory standards	• Documented suggestions of respective stakeholders	Months 3-4
	(iii) Update draft National Quality and Safety Standards, legislation and their implementation plan with involvement of stakeholders	• Draft norms, legislation and their implementation plan	Months 5-10
	(iv) Circulate drafts among stakeholders, collect and incorporate feedback, develop final proposal of standards and legislation	• Final proposal of national laboratory quality and safety norms and legislation describing mechanism of compliance control and enforcement	Months 10-12
	(v) Provide advocacy and support to respective government agencies and other stakeholders in adopting the standards and legislation	• Documentation of respective contacts with key points of problems and progress	Months 13-18 (within 24 months from loan Effective Date)
2. Education and training of laboratory specialists	(i) Review existing postgraduate training curricula for laboratorians of different levels in both branches of KSMI, including waste management for laboratories.	• Registry of available training courses	Month 1
	(ii) Develop needed curricula taking into account new topics (new methods, equipment, etc.), beginner and advanced courses, number of laboratory personnel in the country, capacity of teaching laboratories and teachers' capacity, financial sustainability and geographical access	• Curricula for laboratory personnel for two branches of KSMI (title, duration, target audience, summary for each course)	Months 2-4

Component	Activity	Output and deliverables	Estimated Timeframe (from commencement)
	(iii) Identify teaching personnel, survey their needs in education and conduct training workshops for core teaching staff in both branches of KSMI	• Documentation of survey results; programs and reports on training workshops	Months 2-6
	(iv) Assemble working groups for respective disciplines and manage developing of needed courses	• Documentation of each course (Course program, presentations, teacher's notes/guide)	Months 7-18
	(v) Provide support during the first runs of the new courses in the renovated facilities	• Pre-, post-training surveys, programs and reports of the courses	Months 12-24
	(vi) Research the needs and possibilities, select candidates and organize for them relevant studies abroad supported by the Project scholarships	• Four persons provided with scholarship and trained abroad	Years 2-5
3. Support for laboratories during quality & safety standards implementation	(i) Identify in consultations with stakeholders what support KCA needs to become full ILAC member for ISO 15189 and develop plan for these support activities (e. g. training of experts, training audits)	• Plan of support activities	Months 5-6
	(ii) Perform support activities for KCA to become full ILAC member	• Reports on conducted activities	Months 7-19
	(iii) Promote formal recognition of selected laboratories as reference laboratories	• Official MOH documents	Year 1
	(iv) Prepare with the reference laboratories budgets for their reference functions (documents development, provision of trainings, of EQA, etc.)	• Budget for reference functions for 4 reference laboratories	Months 7-12
	(v) Together with reference laboratories, identify their key reference functions, develop operational plans for implementation and provide support to reference laboratories in carrying out these functions (documents development, banks of control materials, provision of trainings, EQA, etc.)	• Operational plans for each of the 4 reference laboratories detailing carrying out reference functions; • progress reports on plans implementation	Years 2-5
	(vi) Research the possibilities and select and organize twinning programs for two reference laboratories	• Twining agreements for two reference laboratories with description of planned and carried out shared activities	Years 3-5

Component	Activity	Output and deliverables	Estimated Timeframe (from commencement)
	(vii) Select international mentors for four project reference laboratories and two AMR laboratories previously mentored by WHO (see para. 19), agree on monitoring checklists and mentoring plan, and provide mentoring in preparation for accreditation to international standards	• Programs of mentoring visits with progress monitoring checklists and action plans	Years 2-5
	(viii) Select national mentors for all other laboratories, provide for them mentors' training, if needed, agree on monitoring checklists and mentoring plan, and provide mentoring in preparation for accreditation to national standard	• Program and report on mentors' training • Programs of mentoring visits with progress monitoring checklists and action plans	Years 2-5
4. Monitoring efficiency of the national laboratory system and individual laboratories	(i) Select a universal tool to monitor performance of the mentored laboratories within the project and collect and analyze the data annually	• Annual report on progress in mentored laboratories	Annually
	(ii) Review baseline LAT assessment of individual laboratories and compile a list of informative and actionable PI	• List of PIs	End of year 1
	(iii) Pilot PIs chosen for each type and level of laboratory in the Project laboratories	• Report with dynamics of each PI and conclusions about their feasibility for future use	Year 2
5. Calculate cost and sustainable financing of laboratory services	(i) Together with the Costing Working Group, review the current benefit packages covered by MHIF as well as the Chui and Osh Optimization Master plan, draft a list of essential laboratory clinical diagnostic and priority bacteria antimicrobial resistance tests.	• List of tests to be included in the costing exercise	Month 1-2
	(ii) In consultation with MHIF and MOH, update and adapt the WHO Laboratory tests costing tool to the Kyrgyz Republic context.	• Costing methodology	Month 1-2
	(iii) Estimate cost of laboratory test package included in the costing exercise.	• Cost of laboratory tests presented and approved by MHIF and MOH	Month 3-4

Component	Activity	Output and deliverables	Estimated Timeframe (from commencement)
	(iv) Review the current pricelist of lab tests as a basis to advocate for adjusting the tariff that should reflect the calculated cost of lab tests. Propose reimbursement mechanism reflecting the calculated cost of laboratory tests to MHIF.	• Updated reimbursement mechanism, including adjusted tariff • Updated benefit package	Month 5-7
	(v) Support labs to prepare budgets, update payment system, monitor expenditure and utilization, etc., as part of sustainability measures.	• Projected laboratory budget	Month 8-9

Appendix 2C: Terms of Reference (LIMS Development and Implementation Support Firm)

LIMS DEVELOPMENT AND IMPLEMENTATION SUPPORT CONSULTANCY

A. Background

1. The Asian Development Bank (ADB) plans to assist the Government of the Kyrgyz Republic with the proposed Strengthening Regional Health Security Project (the project) of an estimated cost of $35 million comprising $20 million Asian Development Fund 13 Thematic Pool (Regional Cooperation and Integration set-aside) grant, $10 million concessional loan, and $5 million government counterpart funds. The project aims to improve public health and regional health security in the Kyrgyz Republic by enhancing coverage of effective laboratory services and border zone hospitals. The project is aligned with the government's national health sector development program, regional health security commitments, and laboratory development plan, and ADB's Strategy 2030 and country and regional cooperation programs.

2. One overall project output is the upgrade and strengthening of capacities of State Sanitary and Epidemiological Surveillance (SSES) and clinical diagnostic reference laboratories in Bishkek and Osh cities as apex institutions with advanced referral diagnostics, internal quality assurance and biosafety, skills training facilities, and technical support for external quality assurance and licensing, based on international best practices and standards, with linkages to other global and regional laboratories and resource institutions.

3. Part of developing a cohesive network of SSES and clinical diagnostic laboratory services in Chui and Osh oblasts (including Bishkek and Osh cities) is the implementation of a Laboratory Information Management System (LIMS) to improve patient management processes, sample and analysis management, sample transfer logistics and continuous quality improvement (CQI).

4. The national e-Health Centre is a government authority responsible for developing and supporting e-Health initiatives on national and local level. The e-Health Centre is already engaged in the development of a LIMS system, which has been piloted in 40 facilities.

5. It is planned that a consulting firm shall be engaged to provide the technical support, project management and supporting software development services to assist the e-Health Centre to (i) adapt and expand the LIMS to current industry standard functionality, (ii) provide expertise in current electronic health standards and best practices in medical information systems, (iii) ensure that the final product provides quality improvement in patient care and laboratory management, (iv) ensure interoperability with current and potential future digital health systems, (v) support the implementation and rollout of the LIMS in the project facilities and (vi) assist the e-Health Centre to build capacities for long-term support and maintenance of the LIMS.

B. Assignment Description

6. **Project Outcome:** The outcome of the collaboration of the consulting firm with the e-Health Centre is a stable release of a LIMS according to scope of work. The LIMS will be implemented in all project facilities and is expected to comply with best practices for laboratory process management and digital health.

C. Scope of Work

7. **Component 1: Project Management Support**
   (i) Support the national e-Health Centre in establishing and implementing the necessary project management methodologies, processes, and framework
   (ii) Identify and/or propose project sponsors in the relevant MOH departments
   (iii) Support the establishment of a technical work group (TWG) consisting of members of all levels of laboratories, the Coordination Laboratory Council (CLC), members of the MOH and other implementation partners
   (iv) Coordinate communication and project progress reporting with project sponsors and technical working group
   (v) Implement and manage project tracking tools and methodologies
   (vi) Manage project initiation phase, execute project coordination measures during main project phases and manage project hand-over and project closure activities
   (vii) Establish a digital project documentation repository and manage project management documentation throughout the project

8. **Component 2: Needs statement and functional requirements design**
   (i) Analyze the currently developed national LIMS against industry standard quality measurements for software development.
   (ii) Analyze safety and security needs for the digital management of patient information and laboratory process workflows in KGZ, including legal requirements for storing and transferring patient, sample, and result data.
   (iii) Identify national data needs and public health key indicators that can be supported by a national LIMS
   (iv) Develop a functional design and requirements document in close collaboration with the technical working group (TWG):
      a. Scope of supported tests and analysis,
      b. Digital support of sample transfer between facilities,
      c. Digital result storage and retrieval from facilities,
      d. Reporting requirements on intra-facility and national level,
      e. Integration of digital unique patient identifier,
      f. Patient registration, scheduling, and patient record management,
      g. Sample management,
      h. Test and analysis process management,
      i. Interfacing laboratory equipment with the LIMS,
      j. Barcode capabilities for patient data and test/sample processes,
      k. Authentication and review and rejection processes for analysis, and
      l. Quality monitoring and improvement measures.
   (v) Prepare a gap analysis between current status of the LIMS and expected functional requirements
   (vi) Ensure review and acceptance of requirement documents by CLC and overall project authority

9. **Subcomponent 2a: Development of quality indicators**
   (i) The national LIMS is expected to support for the quality management system by providing quality control indicators. Quality control indicators measure the performance of the laboratory workflow and processes. An indicative overview of quality control indicators could for example include the following measurements:
      a. Turnaround Time (TAT): Measures the time between distinct steps of the analysis process

b. Timeliness: Measures the time between sample collection and result availability
c. Resource utilization: Indicator of how many times a specific laboratory equipment is used in a specific time
d. Pre-analytical phase performance indicators: Specific indicators showing error rates during pre-analytical processes, i.e., sample errors, labeling errors, samples lost, etc.

(ii) The improvement measures for the quality management system are outlined in the project preparation documentation. During project implementation the respective stakeholders will adjust and detail quality control indicators and prepare a list of parameters to be recorded and reported as part of the quality improvement measures.

(iii) In regard to the quality control indicators, it is the responsibility of the consultants to:
a. Support and advice the PIU and the technical working group in establishing which quality indicators are technically feasible to be implemented in the LIMS;
b. Include the relevant quality indicators in the requirement analysis; and
c. Include a software dashboard for the reporting and review of quality indicators in the functional specifications of the LIMS.

10. **Component 3: LIMS Development Support**
(i) Based on needs statement and functional requirements support the resources at e-Health Centre to develop and deploy a national LIMS based on the existing prototype and pilot.
(ii) Ensure the appropriate development tools and processes are available in place.
(iii) Apply industry standard methodologies to design/prepare the required technical specifications (i.e., UML Use-case, Activity, class/object diagrams or other equally appropriate documentation)
(iv) Provide application development services and application development support

11. **Subcomponent 3a: Interoperability and Integration**
(i) Provide expertise on interoperability of healthcare information systems.
(ii) Ensure sustainable data exchange interfaces are implemented in the LIMS.

12. **Subcomponent 3b: Software test and acceptance management**
(i) Develop a test plan and for unit and integration testing.
(ii) Execute, monitor, and document software testing according to test plan.
(iii) Prepare and maintain acceptance documentation.

13. **Component 4: Implementation services**
(i) Prepare an implementation and rollout plan for deployment of the national LIMS.
(ii) Review facility compliance with expected and required information technology requirements on-site.
(iii) Support facilities during prior and during implementation and rollout.
(iv) Manage on-site acceptance and commissioning.
(v) Assist the technical work group (TWG) in implementing the reports and data analysis measures outlined in the needs statement

14. **Component 5: Training and continuous education management**

(i) Prepare a training plan for the national LIMS for all participating facilities.
(ii) Conduct training for the national LIMS for all participating facilities.
(iii) Prepare a certification and continuous education plan for information technology capacities in facilities in cooperation with the TWG.
(iv) Identify, promote and train at least one super-user for each facility.

15. **Component 6: Sustainable support and maintenance**
(i) Prepare a proposal for continuous technical maintenance LIMS and the required information technology infrastructure for participating facilities as well as a standard support and maintenance concept for potential future facilities.
(ii) Design and implement a support and maintenance process and workflow guideline including first-, second- and third level support structures.
(iii) Prepare SLA and time-to-respond contract templates between e-Health Centre and participating facilities.
(iv) Prepare a budget and resource plan for continuous support and maintenance after project conclusion for the project sponsors.

16. The outline terms of reference (TOR) for the consultants are provided below.

D. Qualification of the consulting firm and specifications for Key Personnel

17. The firm shall have at least 8 years' experience in management and implementation of large-scale software application development of which at least 4 years should be experience in healthcare related software development projects.

18. The consulting services shall be rendered by a team of national consultants and administrative support staff. Efficient management and backstopping services shall be made available.

1. Project Management, development supervision and quality management

19. **Software Development Project Management Consultant (54 person-months)**. The project management consultant shall have at a degree in software development, information technology or relevant field with 10 years of working experience for similar software development projects. Expertise in the management of healthcare related application development projects will be given preference. Must have proven expertise in leading software development teams, preparing functional specifications and should have experience in both traditional and agile software project management methodologies. Fluent in English with excellent writing and communication skills. The project management consultant shall:
(i) Ensure delivery of the scope of services of the firm.
(ii) Select and apply appropriate project management methodologies.
(iii) Prepare needs assessment, functional requirements, and gap analysis according to **Output 2**.
(iv) Consult and advice the project sponsors and technical workgroups of project progress and facilitate and monitor coordination and communication between development team and user groups.
(v) Perform project controlling activities and track project progress
(vi) Prepare "Definition of Done" statements for LIMS modules
(vii) Prepare rollout and implementation strategies and monitor and coordinate LIMS implementation activities

(viii) Prepare support and maintenance strategy and service level agreements for a multi-tier support framework
(ix) Prepare hand-over documentation and execute project conclusion

2. Software development, development support and software testing

20. **Lead healthcare application developer or development consultant (51 person-months)**. The consultant shall have either a degree in software development and at least 5 years of working experience in software development or at least 10 years of experience in software development for similar assignments. Must have experience in software development in a healthcare environment and practical knowledge of healthcare information technology standards. The following proficiencies are expected:

(i) Must be a full-stack developer and understand concepts of software engineering.
(ii) Object oriented analysis and design using common design patterns.
(iii) Experience in developing web applications using at least one popular web framework.
(iv) Hands on experience in designing and developing applications using Java EE platforms.
(v) Excellent knowledge of Relational Databases, SQL; Knowledge of NoSQL databases is an advantage.
(vi) Experience in development of FHIR/HL7 interfaces.

The Lead development consultant shall:

(i) Develop and support the development of the national LIMS according to the functional requirements prepared by the project management.
(ii) Provide software development expertise the e-Health Centre development in the following areas:
  (a) Development for/with FHIR/HL7
  (b) Application security and authentication
  (c) International best practices on software development
  (d) Quality management in software development
(iii) Manage and maintain daily builds and versioning tools and processes.
(iv) Support the project manager in setting up test environments and strategies
(v) Supervise software development documentation

21. **Healthcare application development support consultant and software development tester (48 person-months)**. The consultant shall have either a degree in software development and at least 4 years of working experience in software development or at least 8 years of experience in software development for similar assignments. Must have experience in software development in a healthcare environment and practical knowledge of healthcare information technology standards. The following proficiencies are expected:

(i) Preferably full-stack developer or must at least have some experience in both front-end and back-end development
(ii) Experience in developing web applications using at least one popular web framework
(iii) Hands on experience in designing and developing applications using Java EE platforms
(iv) Knowledge of Relational Databases and SQL.
(v) Experience in development of FHIR/HL7 interfaces is an advantage

The development consultant shall:

(i) Support the lead development consultant and the e-Health Centre development team with application development for the national LIMS.
(ii) Support the lead development consultant with management and maintenance of daily builds and versioning tools and processes.
(iii) Support the project manager in setting up test environments and strategies
(iv) Prepare software development documentation and application documentation together with the e-Health Centre development team
(v) Execute unit tests and integration tests according to the test strategies provided by the lead development consultant.
(vi) Execute acceptance tests with user groups and the technical work group.
(vii) Manage, document and schedule change requests

3. Implementation, Training and Support

22. **Implementation, Training and Support Expert (LIMS) (36 person-months)**. The consultant shall have a profile training and support of healthcare information management applications, preferably with laboratory information management systems, patient information management systems or other health facility electronic management applications. The consultant should have at least 6 years' experience of similar assignments, with experience in training and support, development of training and support strategies, and improvement of healthcare delivery quality through digital provisions. The expert shall:

(i) Support the project manager in preparing an implementation plan for the national LIMS
(ii) Prepare a training plan for the national LIMS for the participating facilities
(iii) Prepare a long-term training strategy and certification methodologies for continuous education for digital laboratory management
(iv) Prepare a tele-training and remote training concept
(v) Prepare training materials and conduct training in the participating facilities
(vi) Identify and train super-users for each facility
(vii) Prepare a sustainable support and maintenance plan and strategy for e-Health Centre
(viii) Implement a multi-tier support framework for the support of the LIMS
(ix) Prepare quality measurements and indicators and prepare an assessment of quality improvement through digitally supported processes after LIMS implementation

E. Implementation Arrangements

23. The firm will cooperate with the e-Health Centre and provide the services required in the facilities of the e-Health Centre in Bishkek. Assuming that there will be no preventive COVID measures in place during the assignment, it is expected that the majority of development and development support is physically provided to the e-Health Centre, a predominantly remotely conducted coordination and support is not accepted.

24. During the set-up of the development environment, the project will provide funds for appropriate hardware, software and development tools for project management and software development. The hardware and software provided through the project will be transferred into the ownership of e-Health Centre.

25. The hardware and infrastructure for the operation of the LIMS in the facilities as well as the hardware and infrastructure for the LIMS datacenter and servers will be provided through a

different component. The project management consultant is required to review the provisions made for client infrastructure and datacenter specifications prior to start of development. This also includes bandwidth estimations and backup/restore facilities.

26. The firm will report to the project sponsors and technical working group (TWG). The project sponsors and the technical working group will be established together with the project stakeholders prior to project kick-off

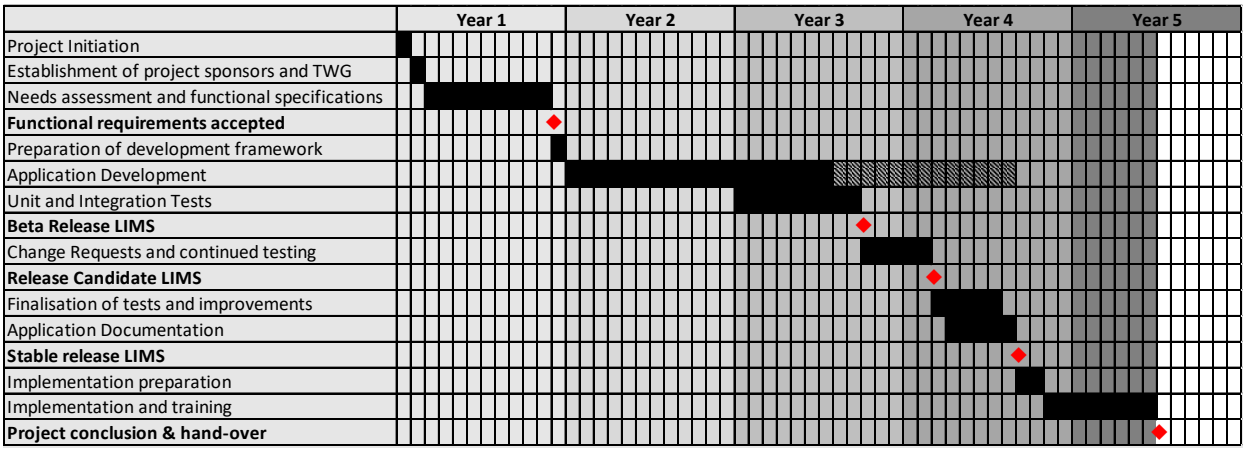
27. Intellectual property and rights to the development work will remain with the e-Health Centre and the Kyrgyz Republic after project conclusion.

F. Timeline

28. The project to develop and implement a national LIMS is scheduled with a duration of 5 years. The experts are required to adhere to the following working plan:

	Year 1				Year 2				Year 3				Year 4				Year 5			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Project Manager																				
Lead Developer																				
Support Developer																				
Implementation Expert																				

29. All tasks specified in the section C on the Scope of Work are to be adhered to in the specific time line without fail. Failure or delays must be explained in writing to the project sponsor. An indicative task schedule is provided below.



G. Outputs

30. The firm will - in cooperation with e-Health Centre - produce a stable national LIMS according to the results from the needs assessment and functional specifications (Output 2). In addition, the firm will produce documents and reports required as deliverables.

31. The firm will produce the following relevant documents:

(i) Needs statement and functional specification, accepted by project sponsor and technical working group;

(ii) Software development documentation (technical documentation);

(iii) Application documentation (user guide);
(iv) Acceptance documentation for software development from project sponsor and technical work group;
(v) Acceptance documentation for implementation and training from facilities; and
(vi) Service level agreements between e-Health Centre and facilities.

32. The firm will produce the following relevant reports:
(i) Timesheets of the experts
(ii) Strategic continuous training, education and certification plan and report, proposing continuous training strategies post project, including tele-training and remote training concepts
(iii) Prepare a quality improvement report in conjunction with the LIMS implementation
(iv) Strategic sustainable support report, proposing continuous support of the LIMS facilities and national rollout post project

33. The firm will provide in softcopy all relevant data collected. Reports must be provided in English.

ANNEX I – LIMS CHARACTERISTICS

The following is a summary of core National LIMS features which are the basis for a detailed functional specification as required by Output 2:

Feature	Description
Patient registration	The system must allow patient registration and patient lookup. This includes the incorporation of national digital biometric identification and – if applicable – national unique identifiers
Patient management	The system must store patient information, history and – if applicable – notes. The electronic patient information must be available for information exchange with other systems **through non-proprietary, industry standard healthcare interfaces** (i.e. FHIR/HL7)
Barcode capabilities	The system must support barcode capabilities for patient documents, samples and results.
Integration of laboratory equipment	The system must allow interfacing with standard laboratory equipment. The necessary interfaces are part of the required development services. The development team is required to source necessary APIs etc from the equipment vendors, if so needed. A list of expected laboratory equipment is provided as a separate attachment.
Coverage of all tests identified in the project preparation phase	The LIMS must have provisions for the complete range of standard tests that have been identified during the project preparation. A complete list of tests is provided as a separate attachment.
Ability to add/remove test templates without source development	The LIMS must allow to add or remove tests via application functionality (i.e. Templates etc.)
Security	The system meets government requirements for handling classified information and documents and maintains mechanisms for audit logs and audit trails. The system also allows administrators and other authorized users to configure multiple levels of user rights and security by site location, department, group, role, and/or specific function.
Receiving and scheduling	The system tracks status and workflow of the accession throughout the laboratory lifecycle, from submission to final analysis, including receiving, diagnostic testing, diagnostic test result reporting
Analysis and data entry	The system supports a variety of test protocols, each capable of storing test comments, test required, and special information
Post-analysis and validation	The system provides mechanism that allow post-analysis and validation according to industry standard protocols.

Reporting	The system allows creation and customization of reports by users.

Functional priorities chart

Patient Management and electronic patient record	HIGH
Laboratory Test Processing	HIGH
Quality Control (QC) and Quality Assurance (QA) Management	HIGH
Policies and Procedures	HIGH
Specimen and Sample Tracking/Chain of Custody	HIGH
Test Scheduling	HIGH
Proactive Specimen/Sample Collection (Prescheduled Tests)	MEDIUM
General Laboratory Reporting	HIGH
Inventory Control Including Kits & Forms Management	MEDIUM
Media, Reagent, Stains, Controls, etc. Manufacturing	MEDIUM
Statistical Analysis and Surveillance	HIGH
Training, Education and Resource Management	HIGH
Lab Certifications/Licensing	MEDIUM
Laboratory Safety and Accident Investigation	MEDIUM
Laboratory Mutual Assistance/Disaster Recovery	LOW
Budgeting and Funding	LOW
Billing for Laboratory Services	LOW

The national LIMS will require different architecture approaches, facilitating the use of the LIMS as a standalone management system for a Laboratory or facilitating the integration of the national LIMS into an existing hospital information management system.

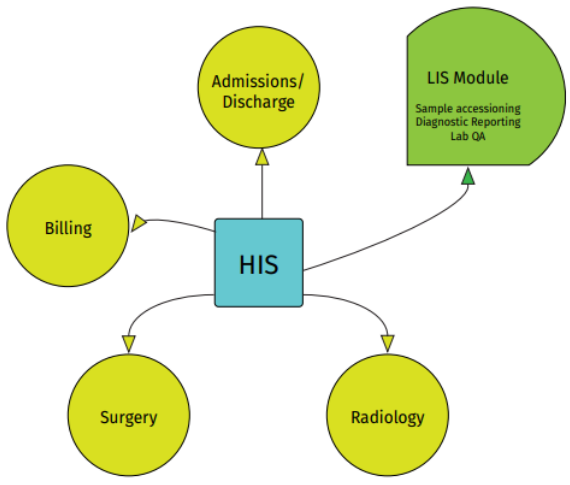


Figure A2.2 - LIMS as part of an existing HMIS

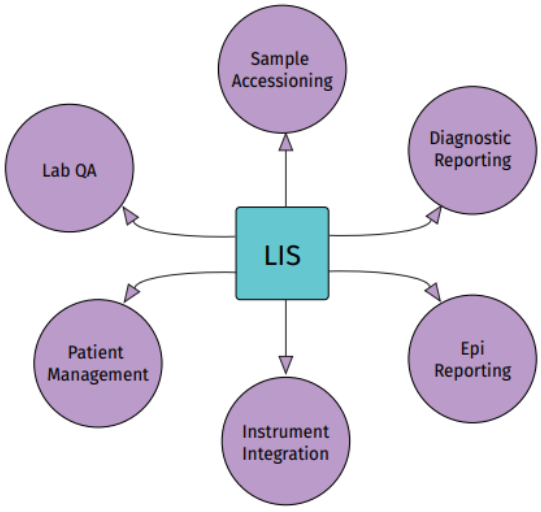


Figure A2.3 - LIMS as stand-alone Lab Management

ANNEX II – Stepwise Laboratory Quality Improvement Process Towards Accreditation (SLIPTA) Checklist

For each item, please circle as relevant Not Applicable (NA), Yes (Y), Partial (P) or No (N). All elements of the item must be satisfactorily present to indicate "yes". Provide explanation or further comments for each "partial" or "no" response.

SECTION 9: INFORMATION MANAGEMENT

Requirement	NA	Y	N	Comments	Score
9.1 Test Result Reporting System Are test results legible, technically verified by an authorized person, and confirmed against patient identity?		**Y**	**P**	**N**	2
ISO15189:2012 Clause 5.8.1 **Note**: *Results must be written in ink and written clearly with no mistakes in transcription. The persons performing the test must indicate verification of the results. There must be a signature or identification of the person authorizing the release of the report.*					
9.2 Testing Personnel Are testing personnel identified on the result report or other records (manual or electronic)?		**Y**	**P**	**N**	2
ISO15189:2012 Clause 4.13 ; 5.5.1.1; 5.8.1 ***Note:*** *The person who performed the procedure must be identified on the report (hard copy or electronic) purposes of traceability.*					
9.3 Report Content Does the laboratory report contain at least the following:		**Y**	**P**	**N**	3
	Tick for each item as Yes (Y), Partial (P) , No (N) or Not Applicable (NA)				
	Y	**P**	**N**	**NA**	
a) Test requested					
b) Identification of the laboratory					
c) Identification of all examinations performed by a referral laboratory					
c) Patient identification and location					
d) Name of the requester					
e) Date of primary sample collection (and time, relevant to patient care)					
f) type of primary sample					
g) Is the result reported in SI units where applicable?					
h) Biological reference intervals where applicable					
i) Is there space for interpretation or comments of results, when applicable?					
j) Identification of the person(s) reviewing and authorizing the report					
k) Date and time of the report					

l) Page number to total number of pages (e.g. "Page 1 of 5", "Page 2 of 5", etc.)						
m) When issuing revised reports, is it clearly identified as a revision and includes reference to the date and patient's identity in the original report and the user made aware of the revision?						
n) Does the revised record show the time and date of the change and the name of the person responsible for the change?						
o) Does the original report entry remain in the record when revisions are made?						
ISO15189:2012 Clause 5.8.2; 5.8.3; 5.9.3 ***Note:*** *When the reporting system cannot capture amendments, changes or alterations, a record of such shall be kept.*						
9.4 <u>Analytic System/Method Tracing</u> When more than one instrument is in use for the same test, are test results traceable to the equipment used for testing?	**Y**	**P**	**N**	**NA**		2
ISO15189:2012 Clause 4.13(g) ***Note:*** *There must be traceability of specimen results to a specific analytical system or method. Proficiency testing specimens would also fall under specimen results.*						
9.5 <u>Archived Data Labeling and Storage</u> Are archived results (paper or data-storage media) properly labeled and stored in a secure location accessible only to authorized personnel?	**Y**	**P**	**N**			2
ISO15189:2012 Clause 4.13; 5.10.3 ***Note:*** *All patient data, paper, tapes, disks must be retained as per the lab's retention policy and should be stored in a safe and access controlled environment.*						
9.6 <u>Authorities and Responsibilities</u> Has the laboratory defined and implemented authorities and responsibilities for the management and use of the laboratory information system–paper based and electronic, including maintenance and modifications that may affect patient care?	**Y N**	**P**				2
Is the following in place and implemented?	**Tick for each item as Yes (Y), Partial (P), No (N) or Not Applicable (NA)**					
	Y	**P**	**N**	**NA**		
a) Controlled access to patient data and information						
b) Controlled access to enter patient data and examination results						
c) Controlled access to changing patient data or examination results						
d) Controlled access to the release of examination results and reports						

e) Verify that results that have been transmitted electronically or reproduced external to the laboratory (computers, fax machines, e-mail and websites and personal web devices) are correct.						
ISO15189:2012 Clause 5.9; 5.10.2; 5.10.3 ***Note:****"information systems" includes the management of data and information contained in both computer and non-computerized systems. Some of the requirements may be more applicable to computer systems than to non-computerized systems. Computerized systems can include those integral to the functioning of laboratory equipment and standalone systems using generic software, such as word processing, spreadsheet and database applications that generate, collate, report and archive patient information and reports.*						
9.7 Information Management System Does the laboratory have evidence of how the LIMS was selected?	**NA**	**Y**	**P**	**N**		2
ISO15189:2012 Clause 5.3.1.1 ***Note:*** *The laboratory must have a documented procedure and records for the selection, purchasing and management of equipment.*						
9.8 Test Result Are test results validated, interpreted and released by appropriately-authorized personnel?	**NA**	**Y**	**P**	**N**		2
ISO15189:2012 Clause 5.1; 5.8; 5.10.3; 5.9.1 ***Note:*** *There must be a signature or identification of the person authorizing the release of the report.*						
9.9 Verification of Electronic Laboratory Information System	**NA**	**Y**	**P**	**N**		2
	Tick for each item as Yes (Y), Partial (P) or No (N)					
	NA	**Y**	**P**	**N**		
a) Has the system been verified before implementation						
that include the verification reports to check functioning and inter-phasing by the laboratory?						
b) Records of the validation by the supplier available and approved for use?						
c) Ongoing system checks available for correct transmissions, calculations and storage of results and records.						
ISO15189:2012 Clause 4.13; 5.10.3 ***Note:*** *The lab must perform verification of system after upgrades and to ensure previously stored patient results have not been affected.*						
9.10 Is the Laboratory Information System properly maintained to ensure continued functioning:	**NA**	**Y**	**P**	**N**		2
	Tick for each item as Yes (Y), Partial (P), No (N) or Not Applicable (NA)					
	NA	**Y**	**P**	**N**		
a) Documented regular service by authorized and trained personnel						
b) Documented system failures with documented appropriate root cause						

analysis, corrective actions and preventive actions					
c) System operated in an environment recommended by the supplier for optimal functioning					
ISO15189:2012 Clause 5.10.3 ***Note:*** *If the LIS is maintained offsite, records of maintenance must be readily available. The lab should include the LIS as part of their internal audit.*					

Appendix 2D: Terms of Reference (Baseline and Endline Surveys)

BASELINE AND ENDLINE SURVEYS CONSULTANCY

A. Scope of Work and Tasks of the Consulting Services

1. The objective of this consultancy is to support the MOH/PIU to conduct baseline and endline survey, to measure project outputs and impacts. This will include but not be limited to the following tasks:

(i) Design baseline and end line survey methodology and tools;
(ii) Conduct baseline assessment survey and analyze data; and
(iii) Conduct end line assessment survey and analyze data.

2. The baseline aims to enable subsequent assessment of the impact in terms of enhanced coverage of effective laboratory and border hospital services in Chui and Osh oblasts, and assess achievement of performance targets, including the gender action plan (GAP).

3. **Baseline survey.** The objectives of the survey are to establish a baseline for the project to enable subsequent assessment of its impact in terms of enhanced coverage of effective laboratory and hospital services, and provide estimates for indicators in terms of utilization and quality of laboratory services provided by the project laboratories. The survey process and results will also help project implementation planning and monitoring.

4. The baseline survey will help to complete and confirm the baseline values of the design and monitoring framework (DMF), in particular the performance indicators below:

Baseline values of performance indicators to be determined

Results Chain	DMF Performance Indicators with Targets
Outcome	
Enhanced coverage of effective laboratory and border hospital services in Chui and Osh oblasts.	b. Number of essential clinical diagnostic tests including tests for female-specific health conditions, performed by project clinical diagnostic laboratories (CDL) increased by at least 30% (2022 baseline: 0)
Outputs	
Output 1: Capacity, quality, and networking of reference laboratories in Bishkek and Osh cities strengthened.	1c. By September 2027, LAT score of 4 project reference laboratories (national and subnational) improved to at least 85% (2022 baseline: 64%) 1d. By September 2027, each project reference laboratory participates in external quality assessment (EQA) for at least 50% of tests it offers, including tests for female-specific health conditions (2022 baseline: approximately 15% tests covered) 1e. Byt September 2027, at least 75% of reference laboratories (national and subnational) accredited to an international ISO laboratory standard (2022 baseline: 0)
Output 2: Laboratory services based on continuous quality improvement in Chui and Osh oblasts (including Bishkek and Osh cities) developed.	By September 2027: 2a. LAT score of 13 non-reference project laboratories improved to at least 70% (2022 baseline: 45%)

Results Chain	DMF Performance Indicators with Targets
	2b. At least 70% of 13 non-reference project laboratories meet national quality and safety standards for laboratory, including for (mostly female) staff (2022 baseline: 0) (2022 baseline: 0) 2c. At least 20 new essential laboratory tests are introduced and performed in project CDLs, reflecting enhanced accessibility to essential package of clinical diagnostic tests (2022 baseline: 0) (OP 6.2.1) 2d. Decreased turnaround time (TAT) for bacteriology culture and antimicrobial sensitivity tests to 3 days (2022 baseline: 10 days)

5. Laboratories assessment using WHO's Laboratory Assessment Tool (LAT) has already been conducted during project preparation, and is used as the baseline value. The assessment will be repeated at endline to measure the changes over time.

6. **Endline survey.** The objective of the endline survey is to provide endline estimates for project indicators in terms of implementation outcome of the project, measures differences and changes in all the DMF's output, outcome and impact indicators. The endline survey will also provide the baseline status of the beneficiaries receiving PHC services from the project and may continue to receive services from the new phase.

7. At endline, the consulting firm will engage laboratory experts from CLC who have experience conducting laboratory assessment using WHO's LAT for each laboratory.

B. Qualifications of Consulting Firm and Key Consultants

8. **Consultant qualifications**. The firm shall have at least 10 years of experience conducting similar scope of work, with a strong background in conducting surveys and data analysis. Firms with previous experience in laboratory services will be given preference. For endline survey, the firm shall engage experience experts to conduct laboratory assessment using LAT.

Appendix 2E: Terms of Reference (Regional Health Security Consulting Firm)

REGIONAL HEALTH COLLABORATION CONSULTANCY

A. Project Description and Background

1. The Strengthening Regional Health Security Project (the Project) builds upon investments made in the last two decades for health system strengthening of Kyrgyz Republic.

2. One of the Project goals is to support development of adequate, equitable, and efficient laboratory services that operate according to international quality and safety principles. This will add value to improving patient care, public health and health security in terms of disease prevention, surveillance, screening, diagnosis and treatment. Within the Project framework, strengthening of the laboratory services is piloting in two Kyrgyz regions (oblasts), Chui and Osh. The approach includes strengthening of reference laboratories within respective networks of state sanitary and epidemiological service (SSES) laboratories and clinical diagnostic laboratories (CDLs) and supporting development of these networks. The Project addresses public health and regional health security by improving not only the capacity and quality of laboratory services, but also laboratory networking and governance of the national laboratory system, as well as addressing the vulnerability of the border communities to health risk by investing in border hospitals.

3. The Project has three outputs: (i) capacity, quality, and networking of reference laboratories in Bishkek and Osh cities strengthened; (ii) laboratory services based on continuous quality improvement in Chui and Osh oblasts (including Bishkek and Osh cities) developed; and (iii) patient care and biosafety capacity of hospitals in border areas/ high travel zones in Chui and Osh oblasts improved.

4. **Regional and cross-border collaboration.** The Kyrgyz Republic is committed to regional health cooperation through international agreements such as the IHR, bilateral agreements (e.g., on TB/HIV with Kazakhstan and Tajikistan), and intergovernmental platforms (e.g., Commonwealth of Independent States, Eurasian Economic Union), and is a member of the Almaty-Bishkek Economic Corridor (ABEC). In relation to regional health security, the project aims to contribute to identifying and addressing critical bottlenecks in the laboratory service to meet the Kyrgyz Republic's IHR commitments. These measures may include ensuring biosafety by updating biomaterial collection points, storage and safe transport, epidemiological surveillance, case management and infection control, public communication, information management and coordination, as well as linkage to regional or global laboratories and resources institutions.

5. The Project contributes to implementing the CAREC Health Strategy 2030, especially pillar 1 on leadership and human resource capacity, pillar 2 on technical preparedness (surveillance and laboratory capacity), and output 4 on vulnerable population groups and border health. The project can leverage CAREC and other platforms to enhance cooperation on regional health security activities. Assessments have been conducted with regards to collaboration with inter-governmental platforms, the Almaty-Bishkek Economic Corridor (ABEC) Project and Central Asia Regional Economic Cooperation (CAREC) Program.

6. The Project will support selected regional and cross-border collaboration activities as follows.

7. **Collaborate with the ABEC project.**[1] Conduct the following on the Kyrgyz side for the National AMR Reference Laboratory:

(i) **Improving infrastructure of reference laboratories.** The project will upgrade the SSES national level AMR Diagnostic Laboratory to meet biosafety requirements through renovation of existing laboratory facilities, provision of laboratory equipment, and installation of uninterruptible power supply, among others. In addition, the project will support the SSES laboratory to be appointed as the National AMR Reference Laboratory.

(ii) **Capacity building of reference laboratories.** The Bacteriology SSES lab, Bishkek (AMR testing) – national reference lab is now being mentored by WHO in preparation for accreditation. This is the best capacity building training as it is adapted to needs. This activity will be taken over by the project once the CQI and sustainable laboratory financing firm is recruited. The project will also ensure that the SSES reference lab be prioritized for oversees technical trainings.

(iii) **Cooperation in the area of quality assurance and standardization of reference studies.** Several activities are planned to be included in the project. In summary, the project will make detailed baseline assessment, then gradually build quality management system and competence, monitor the progress and eventually get accreditation and maintain it:

a. Assessment of the quality management system of reference laboratories in the Kyrgyz Republic using WHO's Laboratory Assessment Tool (LAT).
b. Confirmation of the competence of reference laboratories by passing accreditation, expanding the scope of accreditation and participation in international programs for external quality and conformity assessment of reference laboratories ISO 15189, 17025, 17043.
c. Monitoring and maintaining the quality management system of reference laboratories in the Kyrgyz Republic.
d. Standardization of approaches and methods for validation of reference diagnostics of antimicrobial resistance with the Bacteriology SSES lab, (AMR testing) – national reference lab in year-4 and 5. [Notes on the proposed timeline: some of the staff had a WHO training in method validation recently. As the laboratory has never done any validation before, it will need 3-4 years for a laboratory, among its other activities (conducting tests, building up other QMS aspects), to gain enough competence in method validation, before the laboratory could start validating methods for the country].

8. The above-mentioned activities are among an integral part of the project's laboratory strengthening activities, supported by the Project's Continuous Quality Improvement (CQI) consulting firm.

9. **Contribute to regional health security activities with CAREC.** The collaboration may include contributing to regional conferences, trainings, videoconferences, or webinars via the CAREC platform, as well as conducting assessments on national laboratory system using the national module of LAT, e-SPAR, and JEE for the countries in the region. Some indicative activities may include:

[1] MOH Republic of Kazakhstan and MOH Kyrgyz Republic. 2021. Action Plan for Development of Reference Laboratories under the Economic Corridor Almaty-Bishkek for 2022-2024.

(i) Essential training topics such as: “Transportation of infectious material”, “National transportation for the network of laboratories”, “International Health Regulations”, and “Exchange strategies of sampling to enable cross-country comparisons”.
(ii) Specialized webinars, such as: “Internal audits and training of internal auditors” and “Validation and verification”.
(iii) Broader topics for regional conferences for laboratory personnel and clinicians, such as “Prevention and control of antimicrobial resistance”, and “Hospital Acquired Infections”.
(iv) One-day meetings of lab experts and clinicians on development of protocols for laboratory examinations for diagnosis, and treatment and management of diseases (e.g., diabetes, cardiology patients, hepatitis, etc.).

10. **Collaborate with WHO’s Better Labs for Better Health (BLBH) initiative.** Extend the mentor program to all the 4 AMR laboratories previously mentored under the BLBH initiative (3 of which are project facilities). The mentor program will be provided by the CQI consulting firm:
(i) Bacteriological laboratory of Jalalabad Oblast Regional Hospital (non-project facility),
(ii) Bacteriology SSES lab, Bishkek (AMR testing) – national reference lab,
(iii) Bacteriology SSES lab, Osh (AMR testing) – subnational reference lab, and
(iv) CDL of Republican Infection Diseases Hospital.

11. **Regional disease surveillance and reporting.**
(i) Data sharing within the frame of Eurasian Economic Union (EAEU):
a. There is a system established of monthly information exchange on the registration of infectious and parasitic diseases with /between transboundary republics of the Russian Federation, Kazakhstan, Tajikistan, Azerbaijan, Armenia and Belarus. The system largely concerns the prevention and treatment of communicable diseases, with an emphasis on detection and response, but also covers transboundary public health threats and information sharing. The EAEU legislation also includes an agreement on controlling communicable diseases. All infectious disease data are once per months exchanged with the DDP&SSES of the member countries (monthly data staring of epidemiological data for 33 infectious diseases using a uniform Form 1 by all countries).
b. During COVID-19 pandemic (2020-2021), data exchange process was intensified, and became every two weeks.
c. In February 2022, EAEU issued the Resolution on control and prevention of all infectious diseases in territory of all member countries and developed Mid-term Action Plan, which was accepted and signed by all member countries. Meetings are conducted regularly, as needed, e.g., in end of May 2022, videoconference call was organized on situation of Monkeypox.

(ii) Current status of Shtab (EOC – Emergency Operation Center):
a. The Shtab (EOC) is an official structure under the Prime Minister’s Office, with focus/task adjusted to present priorities and needs, e.g., as it was the case for COVID-19 pandemic.
b. The EOC remains functioning, minutes of the meeting of OEC dated 28 April 2022 focused on Government measures to control situation and prevent future pandemic.

B. Scope of Work and Tasks of the Consulting Services

12. Consulting services will be engaged to support activities related to (i) implementing regional health security activities including recommendations under ABEC, CAREC, WHO-led BLBH initiative, etc. Such activities will include: (i) supporting regional disease surveillance and reporting; (ii) increasing outbreak preparedness and response in border areas including reasearch on vulnerable groups; and (iii) contributing to regional conferences and webinars.

13. Pertaining to regional disease surveillance and reporting, the consulting services will support a detailed assessment and mapping of disease surveillance systems, data, and information sharing undertaken by the Kyrgyz Republic under various regional platforms (EAEU, CAESAR, CIS, SARI, CARINFONET, etc. beyond CAREC and ABEC) to identify areas to further improvement, for example, streamlining standard operating protocols for disease surveillance and reporting.

14. With regard to enhancing outbreak preparedness and response, the firm will support a number of activities. These include: (i) the development of localized intersectoral framework to facilitate intersectoral coordination between authorities at the local level during emergencies and provide training; (ii) assess opportunities and prepare and conduct selected training for cross-border outbreak investigation and response, and emergency drills and simulation exercises in border areas in collaboration with development partners such as WHO; and (iii) conduct research on cross-border communities and mobile populations, sex-differentiated effects of outbreaks and pandemics, especially on female health workers, female patients, and on households with female heads (see Project's Gender Action Plan). Other activities may include developing a socially-inclusive risk communication framework for border areas and recommend extension of bilateral TB agreements.

15. The firm will further support reporting progress to implementing the CAREC health strategy and closely coordinate with team and consultants under TA6535.

C. Qualifications of Consulting Firm and Key Consultants

1. Consultant Qualifications

16. The firm shall have at least 5 years' experience in implementing health security and health system strengthening.

17. The firm should be able to involve experts in laboratory examinations for diagnosis, treatment and management of diseases, disease surveillance, laboratory management, and other relevant fields.

18. The firm should be able to establish reliable interaction and collaboration with stakeholders of the project, such as MOH, CLC, WHO, ABEC, and CAREC.

2. Terms of References for Key Staff

Key positions	Qualifications
Regional health security coordinator	**Essential Qualifications:** Master's level degree (or above) in health related field or laboratory science. At least ten years of experience in health security and health system strengthening including, communicable diseases prevention and control.

Key positions	Qualifications
	Experience desirable: Previous experience in disease surveillance, diseases prevention and control, establishing collaborations and partnerships in healthcare, work in/with recognized humanitarian organizations, international institutions or nongovernmental organizations, particularly in developing countries. **Skills/knowledge:** Excellent knowledge of English. Preferably fluent in Russian.
Disease surveillance and reporting specialist	**Essential Qualifications:** Master's level degree (or above) in health related field. At least ten years of experience in disease surveillance for communicable/non-communicable diseases. **Experience desirable:** Previous experience in developing disease surveillance system, establishing collaborations and partnerships in healthcare, work in/with recognized humanitarian organizations, international institutions or nongovernmental organizations, particularly in developing countries. **Skills/knowledge:** Excellent knowledge of English. Preferably fluent in Russian.
Pool of expertise	Pool of short-term experts with Master's level degree (or above) in: laboratory examinations for diagnosis, treatment and management of diseases, laboratory operations and management, laboratory quality and safety standards, and other relevant fields risk communication emergency preparedness and response research/survey specialist gender and social development training specialist.

D. Institutional Arrangements

19. The firm will report to the PIU of the Project.

20. **PIU's Input and Counterpart Personnel.** PIU's inputs include: (i) services, facilities and property to be made available to the Consultant, the PIU will provide background document of the project and technical inputs as needed; and (ii) professional and support counterpart personnel to be assigned by PIU to the Consultant's team: monitoring and evaluation expert, training coordination expert, laboratory expert of PIU will be the counterpart personnel of the assignment.

E. Timing and Duration

21. The Project will be completed on 30 September 2027. The consultancy assignment is tentatively scheduled from Q3 2023 through Q3 2027. The selected firm will follow the original

timeline of the project for all activities stipulated in the contract. These may be altered only at the request of the PIU when deemed necessary.

F. Deliverables

22. All tasks specified in Section C on the Scope of Work are to be adhered to in the specific time line without fail. Failure or delays must be explained in writing to the PIU. An indicative reporting timetable is provided in the table below.

Summary of Major Outputs and Activities

Component	Activity	Output and deliverables	Estimated Timeframe (from commencement)
1. Coordination of regional health security activities	(i) In consultation with stakeholders of regional health security projects (ABEC, CAREC, EAEU, WHO, etc.), prepare a detailed action plan based on key areas described in this TOR.	Detailed action plan for regional health security activities.	Months 1-2
	(ii) Extract lessons-learned and consolidate regional health security and cooperation activities under the project that can be shared via regional platform.	Report and presentation.	Month 2
	(iii) Coordinate regional health security activities, in particular ABEC's standardization of approaches and methods for validation of reference diagnostics of antimicrobial resistance between Kyrgyz Republic and Kazakhstan.	Monitoring of ABEC action plan, with documentation of issues and progress.	Intermittently throughout assignment
	(iv) Coordinate closely with KSTA consultants on supplementary regional health cooperation activities.		Throughout assignment
2. Regional disease surveillance and reporting	(i) Conduct detailed assessment and mapping of disease surveillance systems, data, and information sharing undertaken by the Kyrgyz Republic under various regional platforms (EAEU, CAESAR, CIS, SARI, CARINFONET etc. beyond CAREC and ABEC) to identify areas to further support regional health collaboration activities.	Assessment report and mapping of disease surveillance system.	Month 1

Component	Activity	Output and deliverables	Estimated Timeframe (from commencement)
	(ii) Coordinate with E-health center to optimize the LIMS for regional disease surveillance reporting, identify regional reporting that could be generated from LIMS. (iii) Develop SOP for regional disease surveillance reporting.	Regional disease surveillance reports to be generated from LIMS SOP for reporting of regional disease surveillance	Months 2-4
	(iv) Provide support and monitor quality of regional reporting	Monitoring report with documentation of issues and progress	Intermittently throughout assignment
3. Strengthen emergency preparedness and response with special attention to vulnerable groups in border areas	(i) Conduct study on the sex-differentiated effects of the outbreaks and pandemics, especially on female health workers, female patients, on households with female heads, elderly, persons with disabilities, poor segments of the population, migrants and mobile populations residing in border areas	Study (refer to Gender Action Plan)	Months 2-4
	(ii) Assessment of preparedness, cross-border outbreak investigation and response and point-of-entry capacity, including assessing stakeholders such as border area hospitals, sanitary checkpoints and other local authorities. Scope capacity for joint simulation exercises, emergency drills and risk communication in border areas. (iii) Based on assessment, develop/ improve localized intersectoral support framework(s).	Assessment report Local intersectoral support framework	Months 4-12
	(iv) Conduct training and simulation exercises on priority topics identified above	Training material	Months 13-30

Component	Activity	Output and deliverables	Estimated Timeframe (from commencement)
4. Contribute to webinar series with pool of short-term experts in: laboratory examinations for diagnosis; treatment and management of diseases; laboratory operations and management; and other relevant fields	(i) Provide technical inputs as assigned, e.g., content development for conference or webinar. (ii) Deliver in conference/ webinar	Content development and delivery in conference/ webinar	Months 4-30, intermittently as required

Appendix 2F: Terms of Reference (Preparation of Outsourcing Services Contracts)

PREPARATION OF OUTSOURCING SERVICES CONTRACTS CONSULTANCY

A. Project Description and Background

1. The Strengthening Regional Health Security Project (the Project) builds upon investments made in the last two decades for health system strengthening of Kyrgyz Republic.

2. One of the Project goals is to support development of adequate, equitable, and efficient laboratory services that operate according to international quality and safety principles. This will add value to improving patient care, public health and health security in terms of disease prevention, surveillance, screening, diagnosis and treatment. Within the Project framework, strengthening of the laboratory services is piloting in two Kyrgyz regions (oblasts), Chui and Osh. The approach includes strengthening of reference laboratories within respective networks of SSES laboratories and CDLs and supporting development of these networks. The Project addresses public health and regional health security by improving not only the capacity and quality of laboratory services, but also laboratory networking and governance of the national laboratory system, as well as addressing the vulnerability of the border communities to health risk by investing in border hospitals.

3. The Project has 3 outputs: (i) capacity, quality, and networking of reference laboratories in Bishkek and Osh cities strengthened; (ii) laboratory services based on continuous quality improvement in Chui and Osh oblasts (including Bishkek and Osh cities) developed; and (iii) patient care and biosafety capacity of hospitals in border areas/ high travel zones in Chui and Osh oblasts improved.

4. **Preparation of Outsourcing Service Contracts.** In relation to the preparation of outsourcing contracts, the project aims to contribute to identifying and addressing critical bottlenecks in the laboratory service and providing the opportunity to establish services contracts between the public and the private sector. There are three outsourcing contracts to be prepared for: (i) procuring reagents for bacteriology tests in Bishkek, covering a period of 3 years (NCS-02); (ii) outsourcing of selected CDL tests to private labs in Bishkek, covering a period of 2 years under NCS-03; and (iii) outsourcing of transportation of lab samples in Chui and Osh oblasts, covering a period of 3 years under NCS-04.

B. Scope of Work and Tasks of the Consulting Services

5. Consulting services will be engaged to support activities related to (i) procuring reagents for bacteriology tests in Bishkek, (ii) outsourcing of selected CDL test to private labs for Bishkek, and (iii) outsourcing of transportation of lab samples.

C. Qualifications of Consulting Firm and Key Consultants

(i) Consultant Qualifications

6. The firm shall have at least 8 years' experience in preparation and implementing of outsourcing contracts in the health care delivery system.

7. The firm should be able to involve experts in laboratory examinations for diagnosis, treatment and preparation and management of procurement of services contracts, and other relevant fields.

8. The firm should be able to establish reliable interaction and collaboration with stakeholders of the project, such as MOH, CLC and WHO.

(ii) **Overall Terms of Reference**

9. **Optimizing Available Resources (pilot project in Bishkek)**: The following activities shall be covered under the assignment:

- The AMR test for Bishkek shall be optimized at the Republican Infectious Disease Hospital for the three hospitals: National Hospital, City Clinical Hospital #1 and the National Center for Maternal and Child Welfare.
- The firm will estimate the required reagents and prepare the respective tender document for the procurement and support the PIU in managing the procurement process.
- Preparation of tender document based on Procurement Regulations for ADB Borrowers ("Regulations") for Goods, 2021.
- Assist the PIU in tender evaluation and contract negotiation.
- Preparation of framework for contract monitoring to be managed by PIU.

10. Outsourcing of selected CDL test to private labs in Bishkek: The following activities shall be covered under the assignment:

- The firm shall in cooperation with the MOH and CLC establish the kind of tests to be included in the outsourcing contract. It is important to ensure that procurement is aligned with country preferences through adherence to laboratory policies and laboratory development and service delivery expectations are current and are responsive to the evolving public health demands.
- Indicative tests for outsourcing may include the following tests not offered by the public sector labs currently, the list of tests may be updated according to the needs and priority during project implementation:
    - Folic acid,
    - Chorionadotropin (HCG),
    - CEA - Carcioembrionic antigen,
    - Tumour marker CA – 125,
    - CA 15-3,
    - CA 19-9,
    - TSH,
    - FT3,
    - FT4,
    - Anti – TPO,
    - Thyroglobulin, and
    - Antibodies to thyroglobulin.

- Based on the finalized test and test parameters the quantities of test and budget (including reagents and delivery of samples and test results) shall be estimated.
- Preparation of tender document, which include service contract conditions, shall include but not limited to the following standards:
    - Methodology of sample processing;

- Schedule for sample management;
- Data management of test results;
- Regulatory framework and conditions;
- Monitoring of complains related to qualities and performance.

- Preparation of tender document based on nonconsulting services administered by ADB borrowers' guidance note on procurement dated June 2018.
- Assist the PIU in tender evaluation and contract negotiation.
- Preparation of framework for contract monitoring to be managed by PIU.

11. **Outsourcing of transport of lab samples in Chui and Osh oblasts:** The following activities shall be covered under the assignment:

- The firm shall in cooperation with the MOH and CLC establish the collection points to be included in the contract and if required create the geographically areas to manage effectively the sample collection.
- Based on the finalized sample collection points and number of tests estimate the quantities of test and budget.
- Preparation of tender document, include service contract conditions, shall include but not limited to the following standards:
  - Logistics of sample collection;
  - Sample management;
  - Condition of samples transportation.
- Preparation of tender document based on nonconsulting services administered by ADB borrowers' guidance note on procurement dated June 2018;
- Assist the PIU in tender evaluation and contract negotiation;
- Preparation of framework for contract monitoring to be managed by PIU.

(iii) **Terms of References for Key Staff**

Key positions	**Qualifications**
Laboratory services planning specialist	**Essential Qualifications:** Master's level degree in health related field or laboratory science. At least ten years of experience in managing medical laboratory services. **Experience desirable:** Previous experience in laboratory sample transportation, outsourcing of laboratory services. **Skills/knowledge:** Excellent knowledge of English. Preferably fluent in Russian.
Service contracts procurement specialist	**Essential Qualifications:** University level degree in relevant field. At least ten years of experience in health commodities procurement financed by development agencies. **Experience desirable:** Previous experience in service contract preparation and implementation, ADB/ World Bank procurement procedures. **Skills/knowledge:** Excellent knowledge of English. Preferably fluent in Russian.

D. Institutional Arrangements

12. The firm will report to the PIU of the Project.

13. **PIU's Input and Counterpart Personnel.** (i) services, facilities and property to be made available to the Consultant, the PIU will provide background document of the project and technical inputs as needed; (ii) professional and support counterpart personnel to be assigned by PIU to the Consultants: PIU procurement specialist, PIU laboratory specialist, PIU monitoring and evaluation specialist, will be the counterpart personnel of the assignment.

E. Timing and Duration

14. The Project will be completed on 30 September 2027. The consultancy firm is tentatively scheduled for Q1 2024 through Q2 2025. The selected firm will follow the original time schedule of the project for all activities stipulated in the contract. These may be altered only at the request of the PIU when deemed necessary.

F. Deliverables

15. All tasks specified in Section III on Scope of Work section are to be adhered to in the specific time line without fail. Failure or delays must be explained in writing to the PIU. An indicative reporting timetable is provided the table below.

Summary of Major Outputs and Activities

Component	Activity	Output and deliverables	Estimated Timeframe (from commencement)
1. Reagent for Bacteriology tests in Bishkek,	1. Estimation of quantity and budget for reagents.	• Quantities and budget	Months 1-2
	2. Preparation of tender document.	• Approved tender document	Months 3
	3. Assisting PIU in tender evaluation and contract negotiations.	• Approved evaluation report • Approved contract	Months 7-9
2. Outsourcing of selected CDL test to private labs for Bishkek	1. Review tentative test and establish the final test and parameters to be included in the outsourcing contract. 2. Estimates of contract quantities and budget.	• Assessment report and recommendations	Month 1-3
	3. Preparation of services contract. 4. Prepare tender document	• Approved tender document	Months 4
	5. Assisting PIU in tender evaluation and contract negotiations.	• Approved evaluation report • Approved contract	Months 9-14
3. Outsourcing of Transport of lab samples	1. Establish the collection points and create the geographically areas to manage effectively the sample collection. 2. Estimation of quantity and budget for transport of samples.	• Assessment report and recommendations	Months 2-4

Component	Activity	Output and deliverables	Estimated Timeframe (from commencement)
	3.Preparation of services contract 4.Preparation tender document	• Approved tender document	Months 6
	5.Assisting PIU in tender evaluation and contract negotiations	• Approved evaluation report • Approved contract	Months 9-12

Appendix 3: Civil Works by Facility

	Lab Category	Budget (USD)	Remarks
Facilities Chui			
SSES-National AMR Bishkek	National	250,000	The civil work involves the expansion of the laboratory from 180 sqm by 100 sqm within existing buildings. On the added area, it is necessary to install a ventilation system. Reconstruction of the water and electricity supply system throughout the area. Installation of the air conditioning system. Minor repairs to walls and ceiling. Partial replacement of windows and doors.
SSES Tokmok	Inter-district	150,000	Civil work involves the replacement of windows and doors. Wall and ceiling repair. Audit of water and power supply systems. Installation of the ventilation system of the air conditioning system. Reconstruction of the heating system.
CDL National Reference LAB National Hospital	National	350,000	The civil work involves the expansion of the laboratory area from 374 sq.m to 550 sq.m. It is planned to reconstruct the floor (pouring concrete and linoleum flooring), removing a number of interior partitions, replacing the roof. Reconstruction of electrical, plumbing, heating and sewerage. Wall painting and cladding. Installation of a ventilation and air conditioning system. Replacement of windows and doors.
CDL City Clinical Hosptal No. 1, Bishkek	Express	250,000	Renovation work on electricity, sanitation and finishing throughout the existing laboratory (approximately 200sqm). Providing additional natural ventilation. Expanding the laboratory into existing available area (approximately 100sqm).
CDL National Centre for MCH Bishkek	Express	150,000	The construction is in good condition. The total area of the laboratory is 220 sq. m. The walls, ceiling and floor need to be repaired. Partial replacement of doors and windows. Ventilation system repair. Installation of the air conditioning system.
CDL Republican Infectious Clinical Hospital	Express + Bacteriology	200,000	Includes 2 divisions The first division is to be extended by 100 sqm within existing buildings. Both divisions will require wall and ceiling work, partial replacement of windows and doors. Installation of ventilation and air conditioning systems.
CDL Zhail	Inter-district	150,000	Civil work involves partial replacement of windows and doors, walls and ceilings. Installation of a ventilation and air conditioning system.
CDL Tokmok	Inter-district	150,000	It is necessary to expand the area of the existing laboratory. Repair of the water and power supply system. Installation of a ventilation system. Replacing windows and doors, repairing the floor.
CDL Issyk-Ata	Express	150,000	Civil work involves the replacement of windows and doors. Wall and ceiling repair. Audit of water and power supply systems. Installation of a ventilation system. Reconstruction of the heating system.
CDL Panfilov	Express	-	no renovation required
H National Hospital Bishkek	-	200,000	The department is located on the basement of the building. The total area is 180 sq. m. Installation

	Lab Category	Budget (USD)	Remarks
			of a ventilation / air conditioning system is required. Repair of walls, ceiling, floor. Partial redevelopment, replacement of windows and doors. Repair of the water and electricity supply, heating system.
H Clinical City Hospital No. 1, Bishkek	-	150,000	Emergency admission: The branch opens in another building. Civil work involves the demolition of partitions. Replacement of windows and doors. Repair of the water and power supply system. Installation of air conditioners. Cosmetic repairs of walls, floors, ceilings
H Issyk-Ata	-	150,000	Emergency admission: Minor cosmetic repairs required. Replacement of windows and doors. Air conditioning installation. Revision of heating and water supply systems. Reconstruction of electrical networks.
H Tokmok	-	100,000	Emergency admission: An addition to an existing building is planned. Renovation of the existing building will require repair of water and electricity systems, Repair of the heating system. Installation of air conditioners.
		2,400,000	
Facilities Osh			
SSES-Subnational AMR Osh	Subnational	120,000	The laboratory is located in a separate building. The total area is 316 sq. m. The structure of the building is in good condition. Installation of ventilation and air conditioning systems is required. It is necessary to repair the water supply system, electricity supply and heating system. Requires cosmetic repairs to walls and ceilings. Renovation of 25% of the premises is required. Minor redevelopment of the premises, partial replacement of windows and doors is required.
SSES Nookat	Inter-district	150,000	The laboratory is located on the 1st floor of the SES building. The total area is 290 sq. m., of which 36 sq. m. is a storage room. The structure of the building is in good condition. Installation of a ventilation and air conditioning system is required. It is necessary to repair the water supply system, electricity supply. The ceiling, walls and floor need to be repaired. Partial redevelopment, replacement of doors and windows
SSES Aravan	Inter-district	50,000	The laboratory is located in a separate building. The total area is 143 sq. m. Possibility of extension by 25 sq. m. Construction is in good condition. Requires installation of a ventilation and air conditioning system and repair of the power supply system.
SSES Alai	Inter-district	150,000	Located on the 1st floor of the SES building. The total area is 132 sq. m. The condition of the building structure is good. Requires repair of a septic tank, water supply, electricity and heating systems, installation of a ventilation and air conditioning system. Repair of walls, ceiling, floor. Replacement of windows and doors.
CDL Subnational Reference Lab Clinical Hospital	Subnational	180,000	Located in the basement and 1st floor of the main hospital building. The total area of the laboratory is 320 sq. m. It can be extended by 40 sq. m. The condition of the building structure is good. It is necessary to install a ventilation / air conditioning

	Lab Category	Budget (USD)	Remarks
			system, repair the water supply system. Electricity and heating, repair of walls, ceiling, floor on the basement floor, minor cosmetic repairs on the 1st floor Partial redevelopment, replacement of windows and doors is required.
CDL Kara-Suu	Inter-district	100,000	Located in a separate one-story building. The total area is 456 sq. m. The construction is in good condition. Installation of a ventilation / air conditioning system is required. Partial repair of the ceiling, walls, floor in the rooms after redevelopment is required, repair of the power supply of the water supply and heating system, partial replacement of windows and doors
CDL Uzgen	Inter-district	160,000	Located on the 1st floor of a two-story building. The total area is 388 sq m. The condition of the building structure is satisfactory, but the roof needs to be replaced. Installation of a ventilation / air conditioning system is required. Requires repair of water and electricity systems, heating, repair of walls, ceiling, floor. Doors and windows need to be replaced
H Kara-Suu	-	150,000	Admission emergency: Located on the 1st floor of a 2 story building. The total area is 320 sq m. The condition of the structure is good, it is required to install a carport for an ambulance in front of the entrance. Requires installation of a ventilation / cond system, partial repair of water, electricity, heating systems. Requires partial redevelopment, repair of walls, ceiling, floor, partial replacement of windows and doors.
H Uzgen	-	200,000	Located on the 1st floor of a 2 story building. The total area is 300 sq m. The condition of the structure is good, it is required to install a carport for an ambulance in front of the entrance. Requires installation of a ventilation / cond system, repair of water, electricity, heating systems. It requires redevelopment, repair of walls, ceiling, floor, partial replacement of windows and doors.

Appendix 4: Medical Equipment Distribution and Quantity by Facility (Diagnostic & Essential Hospital Equipment)

Equipment Package	**Imaging Package**				**Essential hospital equipment**							
Equipment	**CT-Scan**	**General x-ray**	**Mobil x-ray**	**Ultrasound**	**Ventilator port**	**ECG 1/3-channe**	**Defibrillator**	**Infusion Pump**	**Syringe pump**	**Oxygen concentrator**	**Bed resuscitation**	**Portable monitor**
H National Hospital Bishkek	1		1	1	1	1	1	2	3	2	1	3
H Clinical City Hospital No. 1, Bishkek	1		1	1	1	1	1	2	3	2	1	3
H Issyk-Ata		1	1	1	1	1	1	2	3	2	1	2
H Tokmok			1	1	1	1	1	2	3	2	1	3
H Kara-Suu		1	1	1	1	1	1	2	3	2	1	2
H Uzgen		1	1	1	1	1	1	2	3	2	1	2
TOTAL	**2**	**3**	**6**	**6**	**6**	**6**	**6**	**12**	**18**	**12**	**6**	**15**

Appendix 5: Laboratory Equipment – Bills of Quantity

Type of Equipment	Code	List of equipment	Наименование оборудования	Quantity
coagology	LAB1000	Automatic coagulometer (clothing and photometric)	Коагулометр автоматический (клотинговый и фотометрический)	**10**
coagology	LAB1001	Semiautomated coagulometer	Коагулометр полуавтомат	**13**
Hematology	LAB1003	Automatic Hematology analyzer for at least 25 parameters with 5 diff., automatic sample processing. Throughput of 60 samples per hour	Гематологический анализатор на 25 параметра с дифференциацией 5 популяций лейкоцитов, производительностью 60 анализов в час	**11**
Hematology	LAB1004	Automatic Hematology analyzer for at least 18 parameters with 3 diff., throughput of 60 samples per hour	Гематологический анализатор на 18 параметров с дифференциацией 3 популяций лейкоцитов, автоматической подачей проб производительностью 60 анализов в час	**8**
Hematology	LAB1005	Automatic ESR analyzer	Автоматический анализатор СОЭ	**10**
Hematology	LAB1006	Electronic leukocyte counter	Электронный счетчик лейкоцитарной формулы	**22**
Blood gas analyzer	LAB1007	Blood gas/electrolyte Na/K/Cl analyser (auto up to 40 test/hr)	КЩС анализатор	**14**
Biochemistry	LAB2000	Automatic biochemical analyzer with a water treatment station with a capacity of 1600-1800 tests / hour	Автоматический биохимический анализатор со станцией водоподготовки производительностью 1600-1800 тестов /час	**4**
Biochemistry	LAB2001	Automatic biochemical analyzer with a water treatment station with a capacity of 400-600 tests / hour	Автоматический биохимический анализатор со станцией водоподготовки производительностью 400-600 тестов /час	**6**
Biochemistry	LAB2002	Automatic biochemical analyzer with a water treatment station with a capacity of 200 tests / hour	Автоматический биохимический анализатор со станцией водоподготовки производительностью 200 тестов /час	**5**
Biochemistry	LAB2003	Semi-automatic biochemical	Полуавтомат биохимический	**12**
Biochemistry	LAB2004	Protein electrophoresis analyzer	Аппарат для электрофореза белков	**5**
Urine/Body fluids/citology	LAB3000	Automatic urinary station (automatic urine sediment analyzer based on flow cytometry)	Автоматическая мочевая станция (автоматический анализатор осадка мочи на основе проточной цитометрии)	**9**
Urine/Body fluids/citology	LAB3001	Automatic station for preparing and staining cytological smears	Автоматическая станция для приготовления и окраски цитологических мазков	**2**
Urine/Body fluids/citology	LAB3002	Liquid Cytology Analyzer	Анализатор для жидкостной цитологии	**2**
Citofluorimetry	LAB3003	Flow cytometer for diagnosing oncohematology and immune status with a sample preparation station	Проточный цитофлюориметр для диагностики онкогематологии и иммунного статуса со станцией пробоподготовки	**2**
general lab equipment	LAB4000	Microscope examination lab binocular 4,10,40,100X	микроскоп бинокулярный 4,10,40,100X	**34**
general lab equipment	LAB4001	Centrifuge for vacutainers for 32-60 tubes	Центрифуга (для вакутейнеров) на 32-60 пробирок	**15**
general lab equipment	LAB4002	Water distiller 10-25 l/h	аквадистиллятор 10-25 л/час	**18**
general lab equipment	LAB4004	Racks for blood samples	Комплект штативов	**41**
general lab equipment	LAB4006	Container/ plastic utilsils (set)	тара пластиковая (комплект)	**26**
general lab equipment	LAB4007	Freezer lockable -20 to -80°C w alarm	морозильная камера, запираемая от -20 до -80°С, с сигнализацией	**2**
general lab equipment	LAB4008	Micropipette set (any 3 pipettes 100uL-10mL)or (1,2,5,10ml) comes w stand	набор микропипеток (любые 3 пипетки 100 мкл-10 мл) поставляется со штативом	**63**
general lab equipment	LAB4010	pH/temp meter digital	pH/температурный измеритель цифровой	**16**
general lab equipment	LAB4011	Stool revolving hi-lo mobile w backrest	табурет вращающийся hi-lo mobile со спинкой	**91**
general lab equipment	LAB4012	Centrifuge for vacutainers for 10 tubes	Центрифуга для вакутейнеров на 10 пробирок	**47**

Type of Equipment	Code	List of equipment	Наименование оборудования	Quantity
general lab equipment	LAB4014	Exhause hood (box), 1200 mm	вытяжной шкаф, длина 1200 мм	**16**
general lab equipment	LAB4015	Fridge pharmaceutical +2-8	Холодильник фармацевтический +2-8	**40**
general lab equipment	LAB4016	Small lab supplies, including magnetic stirrers, test tubes, and glassware, slides, Petri dishes, culture media, pipettes, and more.	лабораторные принадлежности, включая магнитные мешалки, пробирки и стеклянную посуду, предметные стекла, чашки Петри, питательные среды, пипетки и многое другое.	**17**
general lab equipment	LAB4017	Timer digital 1~60min	цифровой таймер 1~60мин	**30**
general bac lab equipment	LAB4018	Stereoscopic microscope, magnification 10x and 40x, 12.5x and 50x with an attachment lens 1.25	Стереоскопический микроскоп , увеличение 10х и 40х, а также 12,5х и 50х с насадочной линзой 1,25	**11**
general lab equipment	LAB4019	Refrigerator with freezer for storage of reagents 2-14°C, 400l, -20-30°C, 60-90l, vertical	Холодильник с морозильной камерой для хранения реактивов 2-14°C, 400л, -20-30°C, 60-90л, вертикальный	**17**
general lab equipment	LAB4020	Hot air hood (box)	Сушильно-стерилизационный шкаф	**12**
general lab equipment	LAB4021	Analytical electronic scales from 1 mg to 10 g	Весы аналитические электронные от 1 мг ло 10г	**17**
general bac lab equipment	LAB5000	Autoclave vertical (120L)	Автоклав вертикальный (120 л)	**18**
general bac lab equipment	LAB5001	Bacticinerator	баксинератор (Стерилизатор петель)	**11**
general bac lab equipment	LAB5002	Bath water lab 14L 100ºC w ss cover	водяная баня 14л 100ºС	**10**
general bac lab equipment	LAB5003	Biosafety cabinet class II	бокс биобезопасности класса II	**20**
general bac lab equipment	LAB5004	Densitometer (liquid turbidity meter)	Денситометр (измеритель мутности жидкости)	**39**
general bac lab equipment	LAB5005	Incubator (127l) with glass door	Инкубатор, 127 л. Со стеклянной дверью	**28**
general bac lab equipment	LAB5006	Incubator CO2 4.5cf (127l) +5~+60°c	инкубатор CO2 4.5cf (127л) +5~+60°c	**13**
general bac lab equipment	LAB5007	Llamp culture reading	лампа для чтения культуры	**17**
general bac lab equipment	LAB5008	Set of equipment: system for preparation, bottling and packaging of media	комплект оборудования: система приготовления, розлива и упаковки сред	**4**
general bac lab equipment	LAB5009	System for creating an atmosphere for the cultivation of anaerobic bacteria (2-3 liters)	Система для создания атмосферы для культивирования анаэробных бактерий на 2-3 л	**11**
general lab equipment	LAB5010	Glassware washer/disinfector	Аппарат для мытья лабораторной посуды	**2**
Immunochemistry	LAB6001	Automatic immunochemiluminescent analyzer for determining hormones, tumor markers, vitamins, infection serology	Автоматический иммунохемилюминесцентный анализатор для определения гормонов, онкомаркеров, витаминов, диагностики инфекций	**2**
Immunochemistry	LAB6002	ELISA plate reader	Иммуноферментный планшетный ридер	**6**
Immunochemistry	LAB6003	ELISA Washer	Иммуноферментный планшетный вошер	**6**
Immunochemistry	LAB6004	ELISA thermoshaker	Иммуноферментный планшетный термошейкер	**6**
Immunochemistry	LAB6005	ELISA analyzer for 4 microplates	Автоматический иммуноферментный анализатор на 4 планшета	**4**
Bacteriology ID/AST	LAB7000	Automatic blood culture system	автоматическая система гемокультуры	**13**
Bacteriology ID/AST	LAB7001	Bacteria identification (ID) and AST rapid workflow system	система быстрой Идентификации бактерий (ID) и определения чувствительности к антибиотикам	**10**
Bacteriology ID/AST	LAB7002	Mass spectrometer	Масс спектрометр	**1**
Transportation of samples	LCON0001	Sample transportation bags	Сумки для транспортировки образцов	**456**

Appendix 6: ICT Equipment Distribution and Bills of Quantity

No.	Equipment Package			ICT Equipment for LIMS								
	Equipment		**Server**	**Desktop**	**Laptop**	**Tablet**	**AIO Printer**	**Printer**	**Router**	**BC-Scan(w/less)**	**BC-Scan(wired)**	**BC-Printer**
	Facilities Chui	**Category**										
1	SSES-National AMR Bishkek	National		4	1	2	1	0	1	2	2	2
2	SSES Tokmok	Inter-district		2	1	1	1	0	1	2	2	2
3	CDL National Reference LAB National Hospital	National		4	1	2	1	0	1	2	2	2
4	CDL City Clinical Hosptal No. 1, Bishkek	Express		1	1	0	0	1	1	1	1	1
5	CDL National Centre for MCH Bishkek	Express		1	1	0	0	1	1	1	1	1
6	CDL Republican Infectious Clinical Hospital	Express + Bacteriology		2	1	1	1	0	1	2	2	2
7	CDL Zhail	Inter-district		2	1	1	1	0	1	2	2	2
8	CDL Tokmok	Inter-district		2	1	1	1	0	1	2	2	2
9	CDL Issyk-Ata	Express		1	1	0	0	1	1	1	1	1
10	CDL Panfilov	Express		1	1	0	0	1	1	1	1	1
	Facilities Osh											
15	SSES-Subnational AMR Osh	Subnational		4	1	2	1	0	1	2	2	2
16	SSES Nookat	Inter-district		2	1	1	1	0	1	2	2	2
17	SSES Aravan	Inter-district		2	1	1	1	0	1	2	2	2
18	SSES Alai	Inter-district		2	1	1	1	0	1	2	2	2
19	CDL Subnational Reference Lab Clinical Hospital	Subnational		4	1	2	1	0	1	2	2	2
20	CDL Kara-Suu	Inter-district		2	1	1	1	0	1	2	2	2
21	CDL Uzgen	Inter-district		2	1	1	1	0	1	2	2	2
	At central level to be decided		2									
	100 Sample collection points			100				100	100	100	100	100
	TOTAL		**2**	**138**	**17**	**17**	**13**	**104**	**117**	**130**	**130**	**130**

Appendix 7: Grievance Redress Mechanism

1. The project expects to establish a grievance redress mechanism (GRM) that is available and accessible to the community, officials from the government and nongovernment organizations and all citizens directly or indirectly affected or influenced by the project interventions. In addition, a grievance redress mechanism is required for addressing grievances related to the environment and social issues related to the project. A well-defined and managed grievance redress process will benefit the project implementing teams as well as the communities directly and indirectly influenced or affected by the project. It will help to address minor disputes before they are elevated to formal dispute resolution methods by complainants including to the legal system, mediation bodies or members of parliament.

2. The project defines a grievance as any complaint, concern, injustice, wrongdoing, accusation or queries, suggestions and comments related to the project's design, the environment and social impacts and implementation. A complainant can be a community member, a community organization or a government or nongovernment organization or any other individual or body. A GRM is a set of specified processes and procedures for revealing, assessing, addressing grievances or complaints and resolving disputes and monitoring, as well as strengthening grievance redress during the implementation of the project.

3. The GRM mechanism will be in accordance with the Law of the Kyrgyz Republic "On the Procedure for Considering Citizens' Appeals" and ADB's *Safeguard Policy Statement* (2009). The purpose of the GRM is to promptly and fairly consider registered complaints and appeals from the population that may arise during project implementation. The GRM is intended to form a procedure within the existing institutional, legal, and socio-cultural framework for responding to complaints in the form of a completed procedure for preparing a response that will fully satisfy the complainant. The GRM is available to all interested parties for filing appeals and complaints, regardless of national, ethnic, religious, gender, other views, and affiliations. Complaints can be filed during the entire duration of the project in the state (Kyrgyz) or official (Russian) language and can be in any format: oral, written, or electronic. The PIU will provide transcription services for illiterate people who cannot write and support those with hearing and vision problems. A sample complaint form is provided below.

4. An applicant concerned about the impacts of the project may apply to the local or central level, or to the court. The PIU is the responsible body in the functioning of the GRM during the entire duration of the project for the effective management of the entire procedure for considering received complaints or applications of a social or environmental nature. The PIU specialists will accompany the complainant at all stages of the consideration of complaints and ensure that the complaint is properly considered.

5. The GRM under the project will operate at two levels (Figure A7).

6. **Level-1 (Local GRM)**: The applicant may contact the local government (*aiyl okmotu*) or health organization of the project area about their concerns about the environmental or social impacts of the project. To consider an appeal or complaint at the local level, a commission is created consisting of:

(i) Deputy head of the *aiyl okmotu* or district administration;
(ii) Director of the district health organization;
(iii) Representative of the PIU;

(iv) Representatives of local structures of sanitary and epidemiological supervision and territorial administration of the Ministry of Natural Resources, Ecology and Technical Supervision of the Kyrgyz Republic, the State Agency for Architecture, Construction and Housing and Communal Services of the Cabinet of Ministers of the Kyrgyz Republic; and
(v) Representatives of local communities, and local nongovernmental organizations.

7. The received complaint is registered in the appeal log of the *aiyl okmotu* or health organization in accordance with the current regulations, and transferred to the office of the PIU, which also registers the complaint in its log, and creates the above commission at the local level.

8. Within 14 calendar days, the applicant must receive a final response in the language of the application. In cases where a special verification (examination) is necessary to resolve the appeal, and additional materials, the time frame for resolving the complaint may be extended as an exception, but not more than 30 calendar days. The decision on this is communicated to the applicant in written (electronic) form.

9. In preparing the response, the PIU works closely with the above commission, in fact being the secretary of this temporary body. If the answer satisfies the applicant, such procedure is considered completed. Otherwise, the complaint is referred to the central level or to the court.

10. **Level-2 (Central GRM)**. In case of failure to complete the GRM at the local level, the central level of the GRM is involved, which consists of a commission consisting of:

(i) A representative of the Ministry of Health of the Kyrgyz Republic;
(ii) A representative of the Ministry of Finance of the Kyrgyz Republic;
(iii) Director of PIU;
(iv) A representative of the Ministry of Natural Resources, Ecology and Technical Supervision of the Kyrgyz Republic;
(v) Representative of the State Agency for Architecture, Construction, Housing and Communal Services of the Cabinet of Ministers of the Kyrgyz Republic;
(vi) PIU consultant for construction and supervision;
(vii) PIU specialist for safeguards; and
(viii) PIU specialist for social protection and gender.

11. The procedure of the central level commission and the deadlines for completing the complaint are similar to the local level and comply with national legislation.

12. The affected persons have the right to appeal to the court of law at any time if they wish to do so.

13. The MOH/PIU will maintain the complaint register. This will include a record of all complaints about regular monitoring of grievances and results of the GRM for periodic review by ADB.

14. GRM proceedings may need one or more meetings for each complaint and may require field investigations by specific technical or valuation experts. Grievance cases shared by more than one complainant may be held together as a single case.

15. For appeals lodged directly to the MOH, the National GRC at PIU will review the case together with the respective Local GRC at the district level and attempt to find a resolution together with the aggrieved person. The GRC decisions will be made by a majority of members and will be

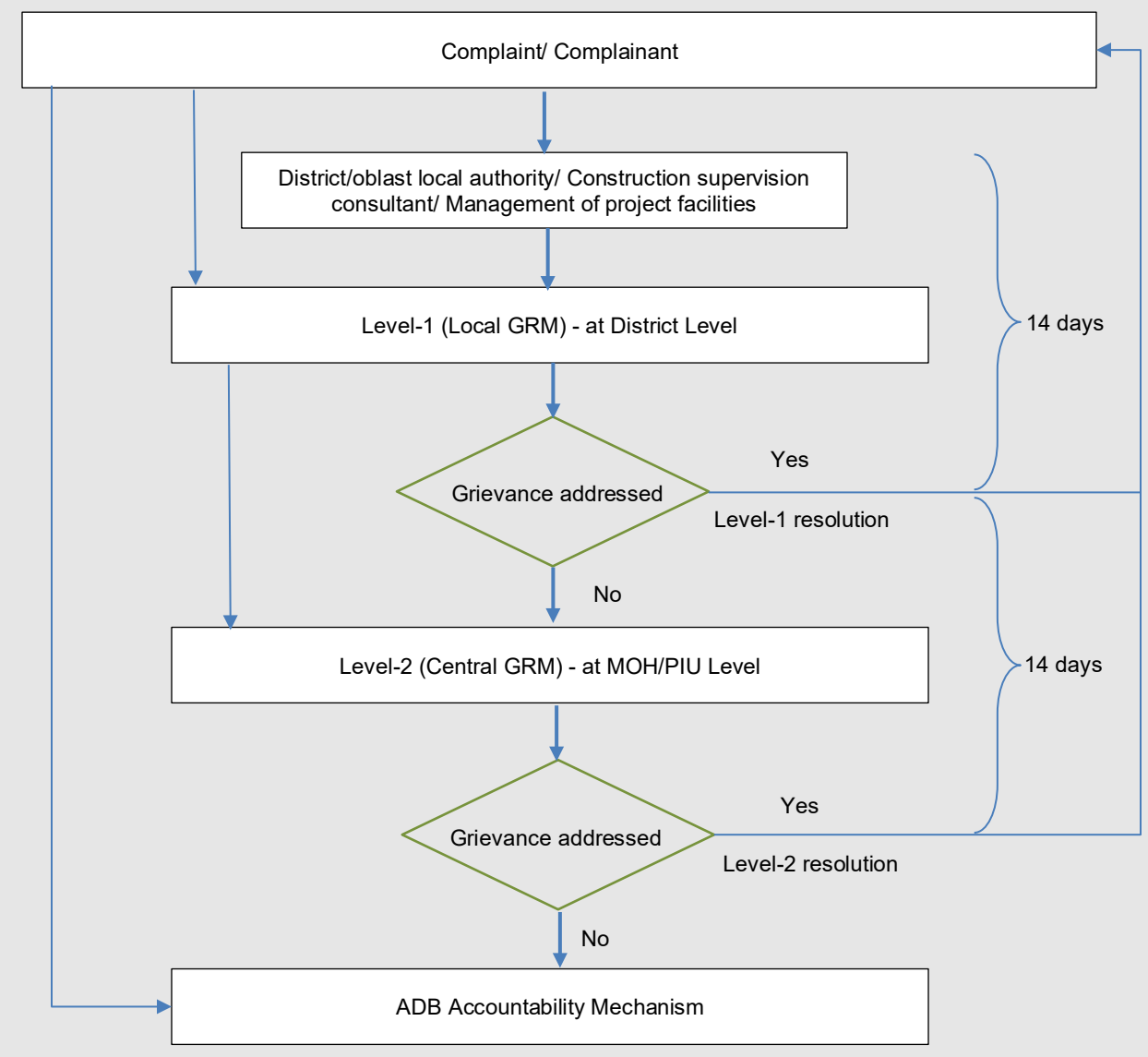
publicized among the local communities and directly to the complainant(s). If the complainants are not satisfied with the National GRC decisions, they can always file their cases in court.

16. All grievances will be properly recorded with personal details unless otherwise requested. Details on the focal person and the process of filing complaints will be posted in strategic areas at the construction site and at the project office. Complaints filed/resolved will be included in the semi-annual environmental monitoring report submitted to ADB and will be disclosed to ADB website as required by ADB's *Safeguard Policy Statement* (2009).

17. If the affected persons want to register a complaint with ADB, the Focal Person will provide the complainants with the following contact information:

ADB National Social Safeguards Focal Point
Resident Mission of Asian Development Bank in Kyrgyz Republic
Orion Business Center, 21 Erkindik Prospect, 6th Floor
720040 Bishkek, Kyrgyz Republic
Tel +996 312 626611

Figure A7: Grievance Redress Mechanism



Sample Complaint Form

GRIEVANCE REDRESS FORM **(MOH/PIU date seal)**

The MOH/ADB project welcomes complaints, suggestions, queries, and comments regarding project implementation. We request persons with a grievance to provide their name and contact information to enable us to get in touch with you for clarification and feedback. If it is group representation, please provide details of two contact persons.
Thank you.

Date & Place of registration of complaint:

Contact Information/Personal Details

Name: ……………………………………………..............................Gender: ……………Age: …………..

Address: ………
…………...……

Occupation/ Employment:

Phone number……………………………………………………….E-mail……………………………………

Complaint/Suggestion/Comment/Question Please provide the details (who, what, where and how) of your grievance below: ……………………………………………………………..………………………

If included as attachment/note/letter, please tick here:

How do you want us to reach you for feedback or update on your comment/grievance?

FOR OFFICIAL USE ONLY
Registered by: (Name of Official registering grievance)

Mode of communication:

1. Note/Letter 2. E-mail 3.Verbal/Telephonic

Reviewed by: (Names/Positions of Official(s) reviewing grievance)

Action Taken:

Whether Action Taken Disclosed:

4. Yes No Means of Disclosure:

---Tear off---

Receipt for complainant

Date and place of complaint: Name of complainant:

Complaint recorded/ registered by