

Project Administration Manual

Project Numbers: 45009-001 (Ongoing) and 45009-003
Loans Number: 2963 (SF)
April 2020

Proposed Emergency Assistance Loan for Additional Financing Mongolia: Fifth Health Sector Development Project

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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 Government and Asian Development Bank (ADB) policies and procedures. 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 as the executing agency and the National Center for Transfusion Medicine, the City Mayor's Office and the National Center for Communicable Diseases as implementing agencies are wholly responsible for the implementation of ADB financed projects, as agreed jointly between the borrower and ADB, and in accordance with Government and ADB's policies and procedures. ADB staff is responsible to support implementation including compliance by the executing and implementing agencies 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 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 agreement, the provisions of the loan agreement shall prevail.

After ADB Board approval of the project's report and recommendation 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.

Abbreviations

ADB	—	Asian Development Bank
COVID-19	—	corona virus disease 2019
CQS	—	consultants' qualification selection
CSSD	—	Central Sterilization Service Department
ELISA	—	enzyme-linked immunosorbent assay
EMP	—	environmental management plan
GAP	—	gender action plan
GASI	—	General Agency for Specialized Inspection
GRM	—	grievance redress mechanism
HAI	—	hospital-acquired infection
ICB	—	international competitive bidding
ICS	—	individual consultant selection
IEC	—	information, education, and communication
IEE	—	initial environmental examination
IPC	—	infection prevention and control
KAP	—	knowledge, attitude, and practice
MDG	—	Millennium Development Goal
MOF	—	Ministry of Finance
MOH	—	Ministry of Health
MOJ	—	Ministry of Justice
NCB	—	national competitive bidding
NCTM	—	National Center for Transfusion Medicine
O&M	—	operation and maintenance
OS	—	occupational safety
PAM	—	project administration manual
PCA	—	procurement capacity assessment
PGC	—	project gender consultant
PIU	—	project implementation unit
PPLM	—	Public Procurement Law of Mongolia
QCBS	—	quality- and cost-based selection
SARI	—	severe acute respiratory infections
SOE	—	statement of expenditure
WHO	—	World Health Organization

I. PROJECT DESCRIPTION

A. Project Rationale, Location and Beneficiaries

1. **Rationale.** Mongolia's economic outlook is bright, but the country is experiencing severe shortages in the provision of social services. The cost of reforming the hospital sector in Ulaanbaatar alone is estimated at \$450 million.¹ At the same time, international support to the health sector is shrinking. Capacity is inadequate to implement reforms to improve the accessibility and service quality of hospital services. Poorer segments of the population have limited access to private hospitals because of the high cost of care and limited health insurance coverage. The safety of patients and health workers is compromised by lapses in hospital hygiene, blood transfusion practices, and medical waste management in the public and private sectors.

2. The government seeks to strengthen blood safety in hospitals and improve preparedness for emergencies in case of natural disasters. Deficiencies in *aimag* (province) blood banks impact on patients' and health workers' safety. Inadequate facilities, equipment, and testing materials; inadequate capacity of personnel involved in blood safety; lack of confidentiality; poor registration and reporting of adverse reactions; lack of readiness for emergencies; and lack of measures to reduce inappropriate blood transfusions are among the major deficiencies, which can result in unintentional transmission of HIV, syphilis, and hepatitis B and C.

3. Efforts are under way in Ulaanbaatar and in medium-sized cities such as Darkhan and Erdenet to improve hospital medical waste treatment and disposal, but the situation in the *aimags* is far from ideal. Management of liquid hazardous waste produced by hospitals and laboratories is inadequate. Liquid hazardous waste, when poorly disposed of, causes harm to people and the environment, as it contains chemical substances, drugs, and pathogens. Hospital sewerage systems are not always of good quality, resulting in environmental and public health risks.

4. Infection control in Mongolian health care facilities is poor and hospital-acquired infections are thought to be underreported.² In March 2010, Mongolia experienced 28 hospital-acquired infections among newborns, of whom five died, as a result of poor infection control clinical practices. The prevalence of hepatitis B and C among health care workers in Mongolia is one of the highest in the world and points to breaches in health care safety.³ Sterilization facilities and practices in hospitals are poor, and basic hygiene measures, such as hand washing, are not commonly implemented. The surveillance system currently implemented in hospitals consists of passive reporting of hospital-acquired infections. Several aspects prevent the current passive surveillance system in hospitals from being effective: (i) the disincentive associated with reporting of hospital-acquired infection cases; (ii) the widespread preventive use of antibiotics for surgery and other procedures, including for newborn babies; and (iii) the lack of microbiology capacity to detect infections and sensitivity to treatment.

¹ Communication from consultant team of ADB. 2009. *Technical Assistance to Mongolia for the Fourth Health Sector Development: Improving Sector Governance*. Manila (TA 7309-MON).

² Mongolia declared 85 cases of hospital-acquired infections in 2010 (Ministry of Health. 2011. *Health Indicators*. Ulaanbaatar) against World Health Organization (WHO) estimates of 3.5%–10.0% of treated cases in hospitals in the Asia and Pacific region; WHO estimates imply 21,000–70,000 expected cases of hospital-acquired infections in Mongolia.

³ Various publications since 1998 report a wide range of the prevalence of hepatitis B and C carriers in various population groups in Mongolia (blood donors, health care workers, general population, males, and outpatients). The reported proportions vary from 8% to 29% for hepatitis B and from 2% to 48% for hepatitis C carriers.

5. The government has established a legal and regulatory framework to address the above shortcomings. However, it lacks investment funding; financing of operational costs; and human resources capacity to implement regulatory measures, guidelines, and plans. Several international partners are supporting the government in these areas, but significant gaps exist, primarily investments, development of monitoring and surveillance systems, and institutional and human resources capacity development.⁴ Private investors are entering the hospital market, intending to offer higher standards of care for more affluent patients.⁵ Public hospitals (with a greater bed capacity) lag behind and remain a serious threat to the safety of patients and health workers. This perpetuates discrimination between poorer and more affluent population groups. A central facility for the treatment and disposal of medical wastes was established as a public–private partnership in Ulaanbaatar in 2007 and has been operational since 2010. This initiative, although requiring major investments, is a solid foundation for improved medical waste management in the capital where almost half of the Mongolian population lives. Ulaanbaatar’s National Center for Transfusion Medicine (NCTM), which provides blood transfusion services of acceptable quality, can play an important role in capacity development and monitoring of hospital transfusion activities in Ulaanbaatar and in the *aimags*.

6. The project builds on hospital sector reforms initiated under previous Asian Development Bank (ADB)-funded operations in Mongolia, including the Fourth Health Sector Development Project to strengthen hospital services.⁶ ADB sector recommendations emphasize the need for structural changes in health care delivery by rationalizing excess hospital capacity at the secondary and tertiary levels, particularly in Ulaanbaatar.⁷ The Fourth Health Sector Development Project is engaged in reforming the hospital sector but hospital rationalization needs to be complemented with increased quality and safety of hospital services to provide effective care and lower resistance to sector reforms. The project will deliver tangible benefits to women by ensuring higher safety standards to protect staff, the majority of whom are women, against hospital-acquired infections and improving the safety of blood transfusions in hospitals.

7. ADB is the largest external financier to the health sector, and plays a pivotal role in assisting the government to formulate and implement health sector reforms. Support from other partners tends to focus on assisting the government to address particular diseases or to develop certain programs. ADB works in close consultation with these partners and, to improve aid effectiveness, efforts are made to support the coordinated implementation of the Health Sector Master Plan (2006–2015). The World Health Organization (WHO), with global expertise in all three focus areas of the project, will assist the project mainly through technical assistance. The German Federal Ministry of Health, which is supporting a hospital hygiene project in Mongolia will

⁴ The Global Fund to Fight AIDS, Tuberculosis and Malaria; the Millennium Challenge Account; and the WHO support the government in blood safety, medical waste management, and infection prevention and control. The ADB-funded Third Health Sector Development Project (ADB. 2007. *Report and Recommendation of the President to the Board of Directors: Proposed Grant to Mongolia for the Third Health Sector Development Project*. Manila.) is supporting the government, especially in medical waste management, and is closely coordinating with all other partners in the sector to avoid duplications.

⁵ Songdo Hospital, a private Republic of Korea investment, opened in 2007 and provides secondary and partly tertiary medical care. Since early 2011, Gurvan Gal Private Hospital, a 110-bed hospital, provides quality care based exclusively on out-of-pocket expenses. MSC, a private Mongolian group operating in the mining and other sectors, will start operating a 100-bed hospital with international standards from early 2013.

⁶ ADB. 2010. *Report and Recommendation of the President to the Board of Directors: Proposed Grant to Mongolia for the Fourth Health Sector Development Project*. Manila.

⁷ Independent Evaluation Department. 2008. *Country Assistance Program Evaluation: Mongolia—From Transition to Takeoff*. Manila: ADB.

support the project by providing advisory services for policy development, monitoring and evaluation, and training activities in Mongolia and Germany.

8. The project builds on previous ADB health sector development initiatives and policy reforms under the Social Sectors Support Program⁸ to reform the Mongolian health sector in line with (i) the National Development Strategy in achieving Millennium Development Goals (MDGs) 4 (child health) and 5 (maternal health), and more directly MDG 6 (HIV/AIDS and tuberculosis) and MDG 7 (environmental health and sanitation); and (ii) the government's Health Sector Master Plan, 2006–2015 for improving hospital services. The project is included in the country operations business plan, 2012–2014⁹ and is consistent with the country partnership strategy, 2012–2016,¹⁰ which emphasizes social development through efficient delivery of health services.

9. **Location.** Interventions in safe blood transfusion will have a nationwide impact, as all 27 blood banks in Mongolia will be supported (i.e., National Center for Transfusion Medicine in Ulaanbaatar, 20 *aimags'* general hospitals, 3 district hospitals of Ulaanbaatar, and 3 *soums*). Measures to strengthen medical waste management and infection prevention and control will be implemented in 4 tertiary hospitals in Ulaanbaatar City; 1 tertiary hospital in Erdenet City; and 16 secondary hospitals, including Darkhan City, 7 *aimag* centers (Bulgan, Dornogovi, Khentii, Khovd, Selenge, Umnugovi, and Uvs), and 8 district hospitals in Ulaanbaatar. The MOH selected the *aimags* for implementation of the medical waste management and infection prevention and control to ensure fair geographical distribution across Mongolia and selected the hospitals generating most medical waste.

10. **Beneficiaries.** The project will improve patients' and health workers' safety in hospitals in Mongolia. The component on improving the safety of blood transfusions will be applied nationwide reaching a large proportion of the total Mongolian population. The components on improving medical waste management and prevention and control of hospital-acquired infection will be conducted in nine *aimags* and three urban centers (Darkhan, Erdenet, and Ulaanbaatar) reaching approximately 1,850,000 beneficiaries. About 13,500 health workers (82% women) will also benefit directly, especially those with professions that put them at occupational risk due to insufficient and unsecure blood products and processes.

11. **The additional financing:** The additional financing will support Component 3: hospital hygiene and infection prevention and control through (i) increasing the number of project sites for upgrading sterilization departments to cover all referral (secondary and tertiary level) hospitals nationwide; (ii) increasing the capacity of hospitals to diagnose and treat COVID-19 patients including providing intensive care and ambulance services; (iii) improving diagnostic capacity for COVID-19 and other viral infections at the National Center for Communicable Diseases and provincial hospitals in border *aimags* with a high risk of imported cases; and (iv) establishing a warehouse facility to maintain and manage centralized stockpiles of medicines and medical devices for emergency situations in Ulaanbaatar. ADB will coordinate closely with donors to identify synergies and avoid duplication.

⁸ ADB. 2009. *Report and Recommendation of the President to the Board of Directors: Proposed Loan, Grant, and Technical Assistance Grant to Mongolia for the Social Sectors Support Program*. Manila. The program implemented a set of policy measures in the social welfare, health, and education sectors to provide essential social services, and to initiate longer-term reforms to improve the targeting of social assistance and health insurance, and living conditions of the poor.

⁹ ADB. 2012. *Country Operations Business Plan: Mongolia, 2012–2014*. Manila.

¹⁰ ADB. 2012. *Country Partnership Strategy: Mongolia, 2012–2016*. Manila.

B. Impact and Outcome

12. The impact and the outcome of the overall project remain unchanged from the original project. The overall project is aligned with the following impact: improved quality of health services in Mongolia.¹¹ The overall project will have the following outcome: improved patient and health worker safety in project-supported hospitals in Mongolia. The overall project's geographical focus will include referral hospitals in Ulaanbaatar and *aimags* (provinces) centers.

13. The additional financing will increase the quality of health services for emergency preparedness for epidemics in Mongolia. It will strengthen the project's outcome of improving patient and health worker safety in project-supported hospitals in Mongolia especially during emergencies.

C. Outputs

14. The nine outputs (detailed in para 21) of the overall project remain unchanged. The additional financing will increase diagnostic and treatment capacity of hospitals to manage COVID-19 and severe acute respiratory infections (SARI) patients (new output 10), establish a national medical countermeasures stockpile in Ulaanbaatar (new output 11), and expand the project sites for upgrading sterilization departments in tertiary and secondary hospitals nationwide (output 6) under component 3: Hospital hygiene and infection prevention and control. All other outputs of the overall project have been completed. The outputs of the overall project are grouped under three components. The 3 components and the 11 outputs are as follows:

- I. **Component 1: Safe blood transfusion.** The current project has assisted the government in establishing the National Center for Transfusion Medicine in Ulaanbaatar by building a new facility, providing equipment, improving management systems, implementing capacity building measures, and obtaining international accreditation (output 1). It has also improved safe blood transfusion in *aimag* general hospitals nationwide and selected *soums* (districts) by upgrading facilities; providing equipment; training personnel; and organizing blood donor management systems, including public awareness (output 2).
- II. **Component 2: Medical waste management.** The current project has strengthened the medical waste management system in selected hospitals to meet national standards by upgrading facilities, providing equipment, updating standards and protocols, and training personnel (output 4). Expansion of the central medical waste management facility (output 3) was canceled at the request of the government.
- III. **Component 3: Hospital hygiene and infection prevention and control.** The current project has upgraded microbiology laboratories (output 5) and sterilization departments (output 6) in tertiary and secondary general hospitals to meet national standards by upgrading infrastructure, providing equipment, and training personnel. The current project developed and institutionalized an effective surveillance system for hospital-acquired infections (output 7); strengthened awareness, knowledge, and capacity of health authorities, health care workers and administrative staff on IPC (output 8); and assisted in the incorporation of IPC in hospital quality management systems (output 9).
- IV. The additional financing, under Component 3, will (a) expand project sites under output 6 to cover all referral (secondary and tertiary) hospitals nationwide; (b) increase the capacity of hospitals to diagnose and treat COVID-19 and SARI patients, including by

¹¹ Government of Mongolia. 2016. *The State Policy on Health 2017-2026*. Ulaanbaatar.

providing intensive care and ambulance services (new output 10); (c) improve diagnostic capacity for COVID-19 and SARI at the National Center for Communicable Diseases and hospitals in border *aimags* with a high risk of imported cases; and (d) establish a warehouse facility to maintain and manage centralized stockpiles of medicines and medical devices for emergency situations in Ulaanbaatar (new output 11).

II. IMPLEMENTATION PLANS

Table 1: Project Readiness Activities (Additional Financing)

Activities	Months												Responsible	
	2020						2021							
	4	5	6	7	8	9	10	11	12	1	2	3		
Advance contracting actions														MOH
Establish project implementation arrangements ^a														MOH
ADB Board approval														ADB
Loan signing														ADB, MOF
Government legal opinion provided														MOJ
Government budget inclusion														MOH
Loan effectiveness														ADB

^a The project implementation unit (PIU) of the Fifth Health Sector Development Project will serve as the PIU for the Additional Financing.

ADB = Asian Development Bank, MOF = Ministry of Finance, MOH = Ministry of Health, MOJ = Ministry of Justice.

Source: Asian Development Bank.

Table 2: Project Readiness Activities (original project)

Activities	Months												Responsible	
	2012						2013							
	7	8	9	10	11	12	1	2	3	4	5	6		
Advance contracting actions														MOH
Establish project implementation arrangements ^a														MOH
ADB Board approval														ADB
Loan signing														ADB, MOF
Government legal opinion provided														MOJ
Government budget inclusion														MOH
Loan effectiveness														ADB

^a The project implementation unit (PIU) of the Fifth Health Sector Development Project will serve as the PIU for the Additional Financing.

ADB = Asian Development Bank, MOF = Ministry of Finance, MOH = Ministry of Health, MOJ = Ministry of Justice.

Source: Asian Development Bank.

	Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
11. National stockpiles for medical countermeasures established.											
11.1	Establish the national stockpile of medicines and medical devices for emergency situations at the National Center for Zoonotic Diseases (NSZD)										
11.2	Develop the capacity of NCZD to manage the national stockpiles.										
B. Project management activities											
	Procurement for project components 1-3										
	Consultant selection procedures										
	Establish project website for public access										
	Implement and report EMP										
	Implement and report Gender action plan										
	Annual/midterm review										
	Loan closing procedure including project completion report										
Implementation Progress (%)											



III. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Implementation Organizations – Roles and Responsibilities

Project Implementation Organizations	Management Roles and Responsibilities
Project Steering Committee	<p>Project Oversight Body</p> <ul style="list-style-type: none"> ➤ Advises the executing agency by providing strategic, policy, and general oversight of the project. ➤ The project steering committee of the original project will serve as the steering committee of the overall project, including additional financing. ➤ Composed of representative from MOH (chaired by the State Secretary of MOH) and comprises senior officials from the MOH, the Ministry of Environment and Tourisms, the Ministry of Finance, the State Social Insurance General Office, Ulaanbaatar City Mayor's Office, Ulaanbaatar City Health department, GASI, the Health Sciences University of Mongolia, the National Center for Health Development, and representatives from the Mongolian Association of Family Doctors, Pharmaceutical Association, and Hospital Association. ➤ Meets at least once every 6 months until completion of the projects ➤ Provides strategic guidance on program implementation ➤ Approves changes to implementation plans for the t projects <ul style="list-style-type: none"> ➤ Oversees progress of project implementation
Project Executing Agency Ministry of Health	<ul style="list-style-type: none"> • Assures policy and strategic oversight of the overall project • Coordinates overall project preparation and implementation • Chairs the project steering committee meetings; • Ensure that the PIU is selected and established in line with ADB procurement policy and regulations and “Regulation on utilization of proceeds of foreign loans of the Government; implementation, administration, financing, monitoring and evaluation of projects and programs funded by such proceeds” • Monitors PIU operation • Responsible for financial matters; signs contracts for works, goods, and services • Oversees progress of overall project implementation • Ensure PIU submits regular reports, audit and financial statements and other project related documents to MOF's Overseas Development Assistance Management Information System • Ensure financial statements are audited by an independent auditor and submits audit reports to ADB and MOF within agreed timeframe • Ensure PIU staff contracts are reviewed and extended subject to approval by MOF • Ensure the project is implemented in line with ADB's policies, regulations and procedures and local laws and regulations • Ensure that project progress reports and other project related documents to ADB in a timely manner. • Ensure that any issues that may arise during project implementation are resolved in a timeline manner for sustainable project implementation.
	<p>Ensure that annual project budget is prepared and submitted to MOF with a proper justification and timeline.</p>

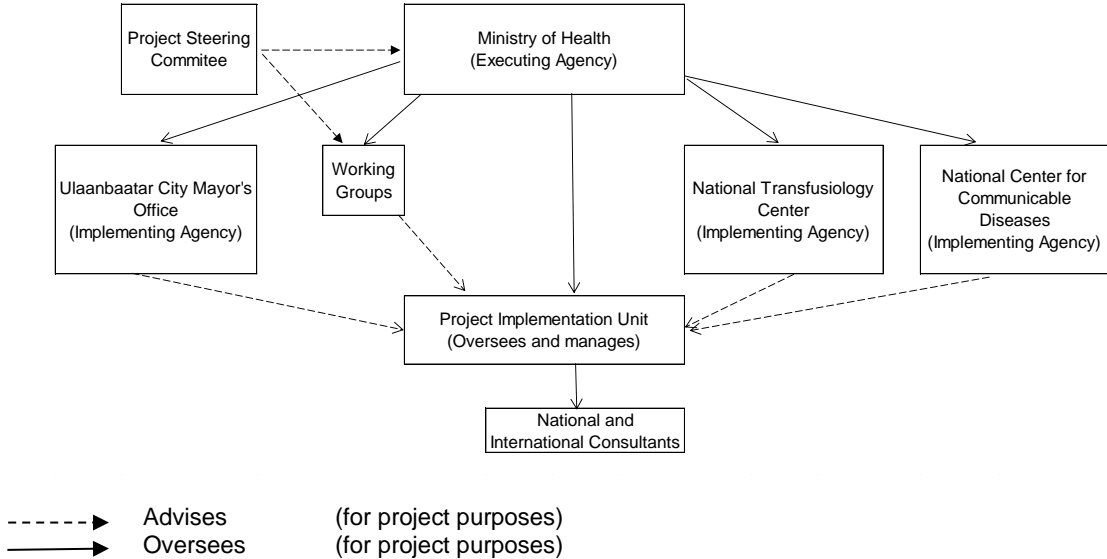
Project Implementation Organizations	Management Roles and Responsibilities
Project Implementing Agencies:	Supervise all project activities for outputs 2,4, 6, 10 and 11
(i) Ministry of Health	
(ii) National Center for Transfusion Medicine	Supervise the establishment of the new transfusiology center (output 1) and will be closely associated to the implementation of project activities related to output 2.
(iii) Ulaanbaatar City Mayor's Office	Supervise project activities in district hospitals in Ulaanbaatar.
(iv) National Center for Communicable Diseases The Project Implementation Unit	Supervise all project activities for outputs 5, 6, 7, 8, and 9. <ul style="list-style-type: none"> • Project implementation unit Coordinates day-to-day implementation of activities. • Monitors implementation of activities and reports under the supervision of the MOH • Manages procurement and project funds to support MOH; • Establishes and manages the advance accounts; • Supervises contractors and their compliance with the environmental management plan; • Prepares and submits semiannual EMRs during construction and annual EMRs during operations to MOH and ADB; • Monitors compliance with social safeguards; • Oversees implementation of the communication strategy and liaises with government ministries and agencies; • Monitors contract awards and disbursements, retains supporting documents, submits quarterly and annual reports, as well as annual audit reports and financial statements; • Acts as the secretariat of the project steering committee. Ensures that project progress reports, financial reports, and project related documents are prepared and submitted in a timely manner to the EA, IA, ADB and MOF; and all reports are uploaded to MOF's Official Development Assistance Management Information System (ODAMIS).
Asian Development Bank	Administer the project and ensure compliance by the executing and implementing agencies with their obligations and responsibilities for project implementation in accordance with Asian Development Bank's policies and procedures.

B. Key Persons Involved in Implementation

Executing Agency	
Ministry of Health	Officer's Name: Ya. Amarjargal Position: Acting State Secretary Telephone: +976 99030894 E-mail address: amarjargal_ya@moh.gov.mn Office Address: Government building VIII, Olympic Street 2, Ulaanbaatar, 14210 Mongolia

ADB	
Division Director	Staff Name: Pavit Ramachandran Position: Director Telephone No.: +976 11 329836 Email address: pramachandran@adb.org
Mission Leader	Staff Name: Mookiah Thiruchelvam Position: Senior Portfolio Management Specialist, MNRM Telephone No.: + 976 11 329836 Email address: mthiruchelvam@adb.org
	Staff name: Altantuya Jigjidsuren Position: Senior Social sector Officer, MNRM Telephone No.: + 976 11 329836 Email address: ajigjidsuren@adb.org

C. Project Organization Structure



15. The project steering committee of the Fifth Health Sector Development Project will cover the additional financing Project. It is chaired by the State Secretary of the Ministry of Health (MOH) and composed of senior officials from the MOH; the Ministry of Finance; the Ministry of Nature, Environment and Tourism; the State Social Insurance General Office; the Ulaanbaatar City Mayor’s Office; the General Agency for Specialized Inspection; the Health Sciences University of Mongolia; Pharmaceutical Association; Hospital Association; Mongolian Consumer Association; and the Mongolian Association of Family Doctors. The project steering committee will meet quarterly and be responsible for providing strategic orientation, approving the annual budget and activity plan, and reviewing and advising on implementation progress.

16. The MOH will be the executing agency of the project and the implementing agency for outputs 2, 4, 6 and the outputs 10 and 11 under the additional financing. The MOH will designate focal point persons for each project component who will chair multisectoral working groups to ensure achievements of the project’s objectives.

17. The project implementation unit (PIU) under the MOH will be responsible for implementation of the Fifth Health Sector Development Project and the additional financing. The

contract period of the current PIU staff will be extended to the end of the Fifth Health Sector Development Project. The unit will be responsible for project coordination and day-to-day implementation of project activities including procurement, disbursement, review and monitoring, progress reporting, and management of consulting services. The PIU will consult closely with relevant health facilities, agencies, and international partners.

18. The National Center for Transfusion Medicine will be the implementing agency for the establishment of the new national transfusiology center (output 1 and will be closely associated to the implementation of project activities related to output 2).

19. The Ulaanbaatar City Mayor's Office will be the implementing agency for strengthening the Ulaanbaatar City central medical waste management facility (output 3) and will be closely associated to and supervise the implementation of project activities in the district hospitals of Ulaanbaatar City.

20. The National Center for Communicable Diseases will be the implementing agency for strengthening infection prevention and control (outputs 5,7,8, and 9).

21. The MOH shall coordinate its and its agencies' purchases of hospital hygiene and infection prevention and control equipment and supplies that use funding or other support from ADB, agencies of the United Nations, World Bank, other international financial institutions and donors to ensure no duplication of support or overlaps and gaps in acquisitions of equipment. The government shall cause MOH to issue a ministerial order that includes lists of equipment and medical supplies to be procured under donor-funded projects, including the Project, to ensure proper donor coordination.

IV. COSTS AND FINANCING

22. The original project financed under a *Loan Agreement, Special Operations, for the Fifth Health Sector Development Project dated 7 February 2013, L2963-MON(SF)* (referred to in this PAM as the “original project” or “current project”) is estimated to cost \$38.37 million. The additional financing is estimated to cost \$34.43 million. The overall project is estimated to cost \$72.81 million, including physical and price contingencies. The taxes and duties of \$12.14 million (Table 4).

Table 4: Overall Project Investment Plan
(\$ million)

Item	Current Amount ^a	Additional Financing ^b	Total
A. Base Cost^c			
1. Component 1: Safe blood transfusion	14.59	0.00	14.59
2. Component 2: Medical waste management	3.92	0.00	3.92
3. Component 3: Hospital hygiene and infection prevention and control	15.23	32.69	47.92
4. Project management	0.74	0.34	1.08
5. Recurrent cost	2.50	0.00	2.50
Subtotal (A)	36.98	33.03	70.01
B. Contingencies^d	0.36	1.00	1.36
C. Financing Charges During Implementation^e	0.85	0.40	1.25
Total (A+B+C)	38.19	34.43	72.62

^a Refers to the amount under the original project. Includes taxes and duties of \$7.71 million financed from government resources.

^b Includes taxes and duties of \$4.43 million to be financed from government resources through exemption.

^c Prices as of 26 March 2020.

^d Physical contingencies computed at 1.5% for civil works and equipment. Price contingencies computed at 2% on foreign exchange costs and 1% on local currency costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

^e Includes interest and commitment charges. Interest during construction for a regular ordinary capital resources (OCR) loan has been computed at the 5-year forward London interbank offered rate plus a spread of 1%.

Commitment charges for a regular OCR loan are 1% per year to be charged on the undisbursed loan amount.

Interest rate for a concessional OCR loan has been computer at 1% per year.

Source: Asian Development Bank estimates.

21. The government of Mongolia has requested a concessional loan in various currencies equivalent to SDR 21,960,000 (\$ 30 million equivalent)¹² from ADB’s ordinary capital resources to help finance the project. The loan will have an interest charge at the rate of 1.0% per year; a term of 40 years, including a grace period of 10 years; repayment of principal at 2% per year for the first 10 years after the grace period and 4% per year thereafter; and such other terms and conditions set forth in the draft loan agreement.

22. The financing plan is in Table 5. The original project cost is \$38.38 million, financed by an Asian Development Fund loan of \$30 million equivalent; World Health Organization (WHO) in-kind parallel cofinancing of \$480,000 equivalent; the German Federal Ministry of Health in-kind parallel cofinancing of \$186,000 equivalent; and the Government of Mongolia will fund the remaining \$7.71 million equivalent. The additional financing is \$34.43 million, financed by an ADB’s ordinary capital resources (COL) of \$30 million equivalent; and the Government of Mongolia’s co-financing of \$4.43 million through tax exemption.

23. The original project investment includes minor civil works for blood banks, microbiology laboratories and central sterilization service departments of the project facilities, as well as the construction of medical waste storage facilities. Equipment provision encompasses equipment for

¹² SDR 0.73201619 = \$1.00 as of 16 April 2020

the National Center for Transfusion Medicine, blood banks, medical waste treatment, central sterilization service departments, and microbiology laboratories. The additional financing will invest in establishing an emergency medical stockpile facility in Ulaanbaatar; supplying tertiary and secondary level hospitals nationwide with emergency and intensive care treatment and diagnostic equipment to manage patients with severe acute respiratory infections (including COVID-19); and upgrading sterilization departments in remaining hospitals.

24. Other investment support includes costs to support the Ministry of Health to strengthen capacity to (i) implement knowledge, attitude, and practice studies, as well as implement education and communication campaigns on blood donation practices among the population; and (ii) knowledge, attitude, and practice studies, as well as behavioral change communication campaigns on infection control and prevention among the personnel of health sector. Communication activities include costs for implementation of nationwide communication strategy mainly via TV, radio, posters, leaflets, and events. PIU costs include the remuneration of PIU staff.

25. WHO's contribution of \$480,000 consists of consulting services of 15 person-months (\$420,000), training (\$20,000), and equipment (\$ 40,000). WHO will cover the remuneration cost of the consulting services provided in kind and the project will cover the corresponding travel costs according to ADB's Guidelines on the Use of Consultants (2010, as amended from time to time).¹³

26. The German Federal Ministry of Health's contribution was canceled on the request of the German Government.¹⁴

Table 5: Overall Financing Plan

Source	Current ^a		Additional Financing		Total	
	Amount (\$ million)	Share of Total (%)	Amount (\$ million)	Share of Total (%)	Amount (\$ million)	Share of Total (%)
ADB						
ADF	30.00	78.6			30.00	41.3
OCR (concessional loan)			30.00	87.10	30.00	41.3
World Health Organization	0.48	1.3	0.00	0.00	0.48	0.7
Government	7.71	20.1	4.43	12.90	12.14	16.7
Total	38.19	100.0	34.43	100.00	72.62	100.0

Note: Numbers may not sum precisely because of rounding.

ADB = Asian Development Bank, ADF = Asian Development Fund, OCR = ordinary capital resources,

^a Refers to the original amount. The German Federal Ministry of Health's contribution of \$0.19 million was cancelled in 2014, after approval of the current project.

Source: Asian Development Bank estimates.

27. Three sets of detailed cost tables are presented below for the additional financing loan.

¹³ A partnership agreement will be established with WHO to cover the travel costs (no overhead and/or fees). WHO technical assistance will meet the consultants' eligibility criteria, particularly being a national of ADB member countries.

¹⁴ In September 2014, the German Bundestag decided to do not approve the proposed co-financing.

A. Detailed Cost Estimates for Additional Financing

Table 6: Detailed Cost Estimates by Expenditure Category (Additional Financing)
(\$'000)

Item	Additional Financing			% of Total Base Cost
	Foreign	Local	Total ^a	
A. Investment Costs^b				
1 Civil works	0.00	2,648.00	2,648.00	8.01
2 Consulting services ^c	0.00	127.00	127.00	0.38
3 Training and workshops ^d	0.00	110.00	110.00	0.33
4 Equipment	26,821.80	2,980.20	29,802.00	90.22
5 Project implementation unit	0.00	346.00	346.00	1.05
Total Base Costs	26,821.80	6,211.20	33,033.00	100.00
B. Contingencies				
1 Physical contingencies ^d	500.00	0.00	500.00	0.5
2 Price contingencies ^d	500.00	0.00	500.00	0.5
Subtotal (B)	1,000.00	0.00	1,000.00	
C. Financing Charges during Implementation				
1 Interest Charge	400.00	0.00	400.00	
Subtotal (C)	400.00	0.00	400.00	
Total Project Cost (A+B+C+D)	28,221.80	6,211.20	34,443.00	

^a The amounts in the table are inclusive of taxes and duties of \$0.65 million to be financed by the government and the Asian Development Bank.

^b In mid-2019 prices.

^c International consulting \$0.90 million, national consulting \$0.57, operation/travel/allowance \$0.54 million, and in-kind contribution of \$0.54 million.

^d Training and workshop: international \$0.54 million, national \$0.20 million, and in-kind contribution \$0.09 million.

^e Physical contingencies computed at 1% for civil works; and 1% for equipment. Price contingencies computed at minimum escalation rate.

Source: Asian Development Bank estimates.

Table 7: Detailed Cost Estimates by Financier (Additional Financing)
(\$ '000)

Item	ADB (OCR Loan)		Government		Total ^a
	Amount	% of Cost Category	Amount	% of Cost Category	
A. Investment Costs					
1 Civil Works	2,290.00	86.48	358.00	13.52	2,648.00
2 Consulting Services	127.00	100.00	0.00	00.00	127.00
3 Training and workshops	95.00	86.36	15.00	13.63	110.00
4 Equipment	25,788.00	86.53	4,014.00	13.46	29,802.00
6 Project implementation unit ^b	300.00	86.70	46.00	13.29	346.00
Total Base Cost	28,600.00	86.58	4,433.00		33,033.00
B. Contingencies					
1 Physical contingencies ^c	500.00	0.00			500.00
2 Price contingencies ^c	500.00	0.00			500.00
Subtotal (B)	1,000.00	0.00			1,000.00
C. Financing Charges during Implementation					
1 Interest Charge	400.00	0.00			400.00
Subtotal (C)	400.00	0.00			400.00
Total Project Cost (A+B+C+D)	30,000.00		4,433.00		34,433.00

ADB = Asian Development Bank, OCR=ordinary capital resources.

^a The amounts within the table are inclusive of taxes and duties of \$4.43 million to be financed by the government.

^b Costs include for PIU staff salaries, and operational costs.

^c Physical contingencies computed at 1.5% for civil works and equipment. Price contingencies computed at 2% on foreign exchange costs and 1% on local currency costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

Source: Asian Development Bank estimates.

Table 8: Detailed Cost Estimates by Outputs/Components (Additional Financing)
(\$ '000)

Item	Component C Hospital Hygiene and IPC		Project Implementation Management		Total Cost ^a	
	Amount	% of Cost Category	Amount	% of Cost Category		
A. Investment Costs						
1	Civil works	2,648.00	100.00	0.00	0.00	2,648.00
2	Consulting services	127.00	100.00	0.00	0.00	127.00
3	Training and workshops	115.00	100.00	0.00	0.00	115.00
4	Equipment	29,802.00	100.00	0.00	0.00	29,802.00
5	Project implementation unit	0.00	0.00	346.00	100.00	346.00
	Total Base Cost	32,687.00		346.00		33,033.00
B. Contingencies						
1	Physical contingencies ^c	500.00	100.00	0.00	0.00	500.00
2	Price contingencies ^c	500.00	100.00	0.00	0.00	500.00
	Subtotal (B)	1,000.00	2.90	0.00	0.00	1,000.00
C. Financing Charges During Implementation						
1	Interest Charge	0.00	0.00	400.00	100.00	400.00
	Subtotal (C)			400.00	0.00	400.00
Total Project Cost (A+B+C+D)		33,687.00		746.00		34,433.00

IPC = infection prevention and control, PIU = project implementation unit.

^a The amounts within the table are inclusive of taxes and duties of \$4.33 million to be financed by the government.

^b In mid-2019 prices.

^c Physical contingencies computed at 1.5% for civil works and equipment. Price contingencies computed at 2% on foreign exchange costs and 1% on local currency costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

Source: Asian Development Bank estimates.

Table 9: Allocation and Withdrawal of Loan Proceeds (Additional Financing)

CATEGORY	ADB FINANCING
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Number	Item	Total Amount Allocated for ADB Financing (SDR) Category	Percentage and Basis for Withdrawal from the Loan Account
1	Goods and Works	20,843,000	100% of total expenditure claimed*
2	Consulting Services	93,000	100% of total expenditure claimed
3	Interest Charge	292,000	100% of amounts due
4	Unallocated	732,000	
	Total	21,960,000	

ADB = Asian Development Bank

Source: ADB estimates.

*Exclusive of VAT and duties within the territory of the Borrower.

Table 10: Detailed Cost Estimates by Year (Additional Financing)
(\$ '000)

	2020	2021	2022	Total ^a
A. Investment Costs				
1 Civil works	264.8	2,118.4	264.8	2,648.00
2 Consulting services	63.5	38.1	25.4	127.00
3 Training and workshops	55.0	33.0	22.0	110.00
4 Equipment	20861.4	8940.6	0	29,802.00
6 Project implementation unit	115.3	115.3	115.3	346.00
Total Base Cost	21,360.0	11,245.4	427.5	33,033.00
B. Contingencies				
1 Physical contingencies	200	300	0	500.00
2 Price contingencies	0	500	0	500.00
Subtotal (B)	200	800	0	1,000.00
C. Interest Charge	120	120	160	400.00
Total Project Cost (A+B+C)	21,680.0	12,165.4	587.5	34,433.00
% Total Project Cost	62.96%	35.33%	1.70%	100.00%

ADB = Asian Development Bank,

^a The total cost amount represented in this table is the sum of all ADB (or ADB-administered cofinancier) funds for the project.
Source: Asian Development Bank estimates.

Table 11: Contract Awards and Disbursement S-curve (Additional Financing)
(\$ million)

	2020	2021	2022
Contract Yearly	27.55	6.49	0.00
Cumulative Contract Awards	27.55	34.04	0.00
Disbursement Yearly	16.53	15.84	2.07
Cumulative Disbursement	16.53	32.37	34.43

Table 12: Schedule of Contract Awards and Disbursements (Additional Financing)
(\$million)

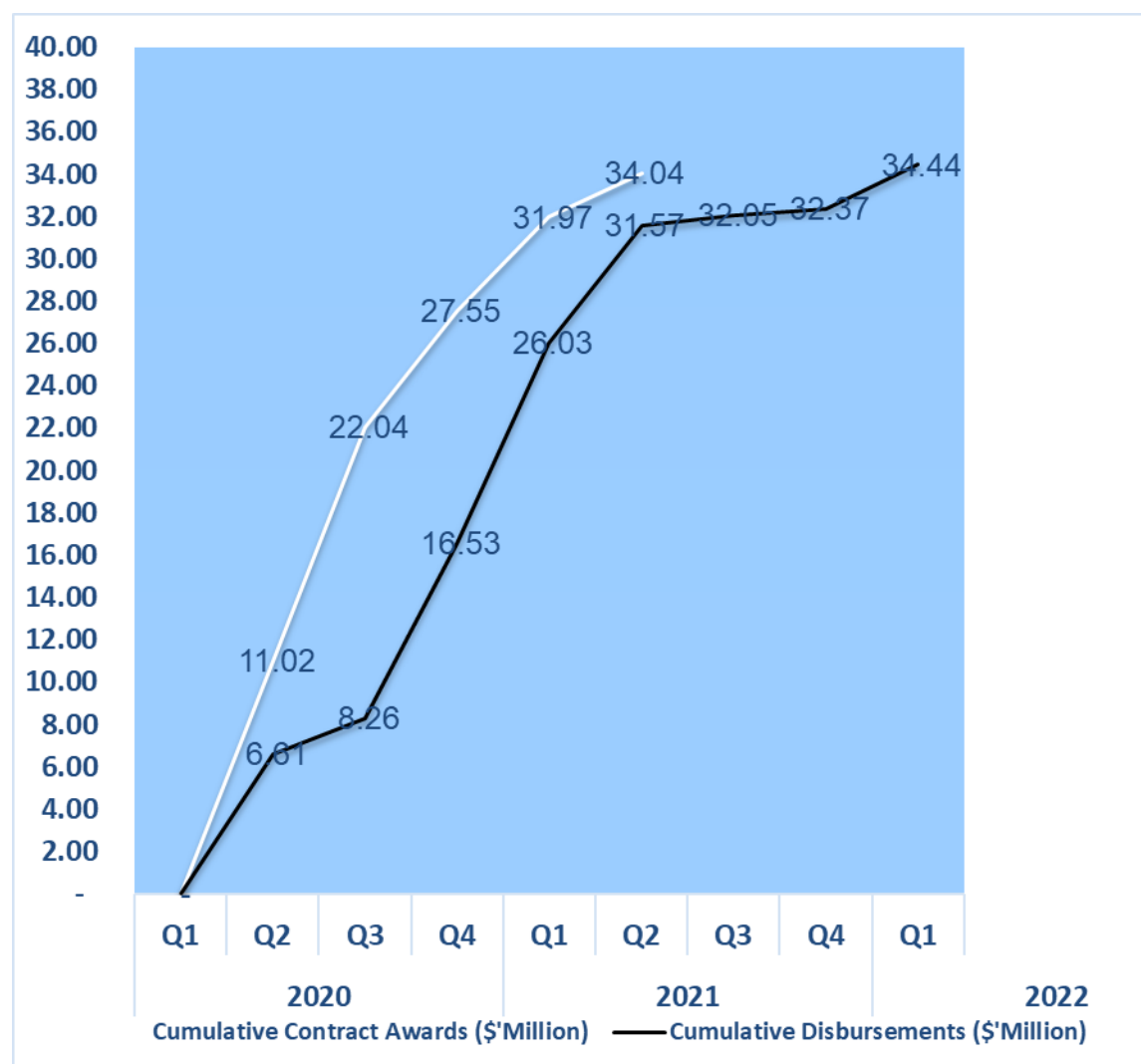
Year	Contract Awards ^a					Disbursements				
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
2020	0.00	11.02	11.02	5.51	27.55	0.00	6.61	8.26	1.65	16.53
2021	4.42	2.07	0.00	0.00	6.49	9.50	5.54	0.48	0.32	15.84
2022	0.00	0.00	0.00	0.00	0.00	2.07	0.00	0.00	0.00	2.07
Total	4.82	13.08	11.02	5.51	34.04	11.57	12.15	8.74	1.97	34.43

Q = quarter.

^a Excluding financial charges.

Source: Asian Development Bank estimates.

Figure 1: Contract and Disbursement S-Curve (Additional Financing)



B. Detailed Cost Estimates by Expenditure Category (Current Project)

Table 13: Detailed Cost Estimates by Expenditure Category – (Current Project at Approval)
(\$ '000)

	Foreign	Local	Total ^a	% of Total Cost
A. Investment Costs^b				
1 Civil works	-	5,400.0	5,400.0	14.1
2 Consulting services ^c				
a. Project	1,042.3	617.2	1,659.5	4.3
b. In-kind	488.0	50.0	538.0	1.4
3 Training and workshops ^d				
a. Project	187.9	204.0	391.9	1.0
b. In-kind	88.8	-	88.8	0.2
4 Equipment				
a. Project	24,121.0	942.5	25,063.5	65.3
b. In-kind	40.0	-	40.0	
5 Other investment support	-	907.0	907.0	2.4
6 PIU	-	573.8	573.8	1.5
Subtotal (A)	25,967.9	8,694.5	34,662.4	90.3
B. Recurrent Costs				
1 Civil works O&M	-	779.7	779.7	2.0
2 Equipment O&M	-	1,504.31	1,504.31	3.9
3 PIU O&M	-	215.0	215.0	0.6
Subtotal (B)	-	2,499.0	2,499.0	6.5
Total Base Costs	25,967.9	11,193.5	37,161.4	
C. Contingencies				
1 Physical contingencies ^d	122.6	35.8	158.4	0.4
2 Price contingencies ^d	83.3	122.7	206.1	0.5
Subtotal (C)	206.0	158.5	364.4	
D. Financing Charges During Implementation				
1 Interest during implementation	850.0	-	850.0	
2 Commitment charges	-	-	-	
Subtotal (D)	850.0	-	850.0	
Total Project Cost (A+B+C+D)	27,023.9	11,351.9	38,375.8	

O&M = operation and maintenance, PIU = project implementation unit.

^a The amounts within the table are inclusive of taxes and duties of \$0.65 million to be financed by the government and the Asian Development Bank.

^b In mid-2012 prices.

^c International consulting \$0.90 million, national consulting \$0.57, operation/travel/allowance \$0.54 million, and in-kind \$0.54 million.

^d Training and workshop: international \$0.54 million, national \$0.20 million, and in-kind \$0.09 million.

^e Physical contingencies computed at 1% for civil works; and 1% for equipment. Price contingencies computed at minimum escalation rate.

Source: Asian Development Bank estimates.

Table 14: Allocation and Withdrawal of Loan Proceeds (Current Project)

CATEGORY				ADB FINANCING
Number	Item	Total Amount Allocated for ADB Financing (SDR)		Percentage and Basis for Withdrawal from the Loan Account
		Category	Subcategory	
1	Works	3,028,600		
1A	Works - A		197,510	17.4% of total expenditure claimed
1B	Works - B		2,831,090	100% of total expenditure claimed
2	Consulting Services	1,444,000		100% of total expenditure claimed
3	Workshop/Training	235,100		100% of total expenditure claimed
4	Equipment	13,803,640		
4A	Equipment (NCTM) ^a		3,579,500	100% of total expenditure claimed
4B	Equipment (Others)		10,224,140	100% of total expenditure claimed
5	Other Investment support	203,100		100% of total expenditure claimed
6	Project Implementation Unit (Total)	768,560		
6A	Project Implementation Unit		731,100	100% of total expenditure claimed
6B	Project Implementation Unit (O&M)		37,460	100% of total expenditure claimed
	Total	19,483,000		

ADB = Asian Development Bank, NCTM = National Center for Transfusion Medicine. O&M = operation and maintenance, PIU = project implementation unit.

^a Condition for Withdrawals from Loan Account: Notwithstanding any other provision of this Loan Agreement, no withdrawals shall be made from the Loan Account for the procurement of equipment of the NCTM for Output 1 until ADB is satisfied that the Ministry of Health's budget allocation in 2013 and 2014, respectively, shall have included the required cost of construction of the NCTM.

Source: ADB estimates.

Table 15: Detailed Cost Estimates by Financier (Current Project at Approval)

(\$ '000)										
		ADB		Government		WHO ^a		German Federal MOH ^a		Total ^b
		Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount
A.	Investment Costs^c									
1.	Civil Works	940.4	17.4	4,459.6	82.6					5,400.0
2.	Consulting Services									
	a. Project	1,659.5	100.0	-	-	-		-		1,659.5
	b. In-kind	-		-		420.0	78.1%	118.0	21.9	538.0
3.	Training and workshops									
	a. Project	391.9	100.0	-				-		391.9
	b. In-kind	-		-		20.0	22.5%	68.8	77.5	88.8
4.	Equipment									
	a. Project	25,033.5	100.0							25,033.5
	b. In-kind					40.0	100.0	-		40.0
	c. Government			30.0	100.0					30.0
5.	Other investment support	907.0	100.0							907.0
6.	PIU	573.8	10.0							573.8
	Subtotal (A)	29,506.1	85.1	4,489.6	13.0	480.0	1.4%	186.8	0.5	34,662.4
B.	Recurrent Costs									0.0
1.	Civil works O&M	-	-	779.7	100.0					779.7
2.	Equipment O&M	-	-	1,504.3	100.0					1,504.3
3.	PIU O&M	215.0	100.0		0.0					215.0
	Subtotal (B)	215.0	9.7	2,229.1	90.3	-		-	-	2,444.1
	Total Base Cost	29,721.1	80.0	6,773.6	18.2.0	480.0		186.8		37,161.4
C.	Contingencies									
1.	Physical contingencies ^d	136.1	86.0	22.3	14.0					158.4
2.	Price contingencies ^d	142.8	69.0	63.2	31.0					206.1
	Subtotal (C)	278.9	76.5	85.5	23.5					364.4
D.	Financing Charges During Implementation									850.0
				850.0	100.0					
	Total Project Cost (A+B+C+D)	30,000.0	78.2	7,709.1	20.1	480.0	1.3	186.8	0.5	38,375.8
	% Total Project Cost									

ADB = Asian Development Bank, MOH = Ministry of Health, O&M = operation and maintenance, PIU = project implementation unit, WHO = World Health organization.

^a WHO cofinances \$420,000 for consulting services, \$20,000 for training, and \$40,000 for equipment. The German Federal MOH cofinances \$118,000 for consulting services and \$68,000 for training.

^b The amounts within the table are inclusive of taxes and duties of \$0.65 million to be financed by the government and ADB.

^c In mid-2012 prices.

^d Physical contingencies computed at 1% for civil works; and 1% for equipment. Price contingencies computed at minimum escalation rate.

Source: Asian Development Bank estimates.

Table 16: Detailed Cost Estimates by Outputs/Components (Current Project)
(\$ '000)

Item	Safe Blood Transfusiology		Medical Waste Management		Hospital Hygiene and IPC		Project Implementation Management		Total Cost ^a
	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	
A. Investment Costs^b									
1 Civil works	3,110.0	57.6	730.0	13.5	1,560.0	28.9	-		5,400.0
2 Consulting services									
a. Project	484.1	29.2	433.6	26.1	608.0	36.6	133.8	8.1	1,659.5
b. In-kind	128.0	23.8	132.0	24.5	278.0	51.7	-		538.0
3 Training and workshops									
a. Project	75.5	19.3	100.0	25.5	216.4	55.2	-		391.9,
b. In-kind	-		20.0	22.5	68.8	77.5	-		88.8
4 Equipment									
a. Project	10,162.5	40.5	2,480.0	9.9	12,391.0	49.4	30.0	0.2	25,063.5
b. In-kind	40.0	100	-		-		-		40.0
5 Other investment support	593.0	65.4	30.0	3.3	284.0	31.3	-		907.0
6 PIU							573.8	100	573.8
Subtotal (A)	14,593.1		3,925.6		15,406.2		737.6		34,662.4
B. Recurrent Costs									
1 Civil works O&M	435.4	55.8	80.3	10.3	264.0	33.9	-		779.7
2 Equipment O&M	612.1	40.7	148.8	9.9	743.5	49.4	-		1,504.3
3 PIU O&M							215.0	100	215.0
Subtotal (B)	1,047.5		229.1		1,007.4		215.0		2,499.0
Total Base Cost	15,640.5		4,154.7		16,413.6		952.6		37,161.4
C. Contingencies									
1 Physical contingencies ^c	72.6	45.8	16.1	10.2	69.8	44.1	-		158.4
2 Price contingencies ^c	86.1	41.8	20.0	9.7	85.7	41.6	14.3	6.9	206.1
Subtotal (C)	158.7		36.1		155.4		14.3		364.4
D. Financing Charges During Implementation									
1 Interest during implementation									850.0
2 Commitment charges	-		-		-		-		-
Subtotal (D)	-		-		-		-		850.0
Total Project Cost (A+B+C+D)	15,799.2	41.2	4,190.7	10.9	16,569.0	43.2	966.9	2.5	38,375.8

IPC = infection prevention and control, O&M = operation and maintenance, PIU = project implementation unit.

^a The amounts within the table are inclusive of taxes and duties of \$0.65 million to be financed by the government and the Asian Development Bank.

^b In mid-2012 prices.

^c Physical contingencies computed at 1% for civil works; and 1% for equipment. Price contingencies computed at minimum escalation rate.

Source: Asian Development Bank estimates.

Table 17: Detailed Cost Estimates by Year (Current Project)
(\$ '000)

	2013	2014	2015	2016	2017	2018	Total ^a
A. Investment Costs							
1 Civil works	932.0	4,468.0	-	-	-	-	5,400.0
2 Consulting services							
a. Project	251.2	494.1	382.6	190.9	259.3	81.4	1,659.5
b. In-kind	55.6	119.6	141.6	99.6	99.6	22	538.0
3 Training and workshops							-
a. Project	4.5	169.4	148.3	46.8	16.5	6.5	391.9
b. In-kind	13.8	18.8	23.8	18.8	13.75	-	88.8
4 Equipment							
a. Project	30.0	225.0	17,056.1	7,752.4	-	-	25,063.5
b. In-kind	-	10.0	10.0	10.0	10.0	-	40.0
5 Other investment support	108.0	203.0	225.0	227.0	60.0	84.0	907.0
6 PIU	62.2	49.4	109.4	94.4	139.4	119.0	573.8
Subtotal (A)	1,457.3	5,757.2	18,096.7	8,439.9	598.5	312.9	34,662.4
B. Recurrent Costs							
1 Civil works O&M	-	93.3	254.4	162.0	162.0	108.0	779.7
2 Equipment O&M	-	-	-	250.6	752.2	501.5	1,504.3
3 PIU O&M	16.5	43.0	43.0	43.0	43.0	26.5	215.0
Subtotal (B)	16.5	136.3	297.4	455.6	957.2	636.0	2,499.0
Total Base Cost	1,473.8	5,893.5	18,394.0	8,895.5	1,555.7	948.9	37,161.4
C. Contingencies							
1 Physical contingencies	48.1	234.7	852.8	387.6	-	-	1,523.2
2 Price contingencies	-38.3	-167.4	-698.4	-303.7	27.9	21.1	-1,158.7
Subtotal (C)	9.8	67.3	154.5	84.0	27.9	21.1	364.4
D. Financing Charges During Implementation							
Total Project Cost (A+B+C+D)	1,497.0	6,010.5	18,892.4	9,276.5	1,697.7	1,001.4	38,375.8
% Total Project Cost	3.9%	15.7%	49.2%	24.2%	4.4%	2.6%	100.0%

ADB = Asian Development Bank, O&M = operation and maintenance, PIU = project implementation unit.

^a The total cost amount represented in this table is the sum of all ADB (or ADB-administered cofinancier) funds for the project.

Source: Asian Development Bank estimates.

Table 18: Required Ministry of Health Budget (Current Project)

	(\$ '000)						
	2013	2014	2015	2016	2017	2018	Total
A. Investment Costs							
1. Civil works	932.0	3,527.9	-	-	-	-	4,459.9
2. Equipment	30.0	-	-	-	-	-	30.0
B. Recurrent Costs							
1. Recurrent costs							
– civil works	-	93.3	254.4	162.0	162.0	108.0	779.7
2. Recurrent costs							
– equipment	-	0.0	0.0	250.6	752.2	501.5	1,504.3
C. Contingencies	3.3	13.4	42.1	20.7	3.8	2.2	85.5
Subtotal (A+B+C)	965.3	3,634.6	296.5	433.3	918.0	611.7	6,859.4
D. Financing Charges	10.0	20.0	130.0	250.0	290.0	150.0	850.0
Total	975.3	3,654.6	426.5	683.3	1,208.0	761.7	7,709.4

^a The construction of the new National Center for Transfusion Medicine amounts to \$2.45 million (\$0.923 million in 2013 and \$1.527 million in 2014).

Table 19: Contract and Disbursement S-curve (Current Project)

	(\$ million)					
	2013	2014	2015	2016	2017	2018
Contract Yearly	1.78	2.07	20.50	5.12	0.30	0.24
Cumulative Contract Awards	1.78	3.85	24.34	29.47	29.76	30.00
Disbursement Yearly	0.49	2.47	17.72	8.44	0.56	0.32
Cumulative Disbursement	0.49	2.96	20.68	29.12	29.68	30.00

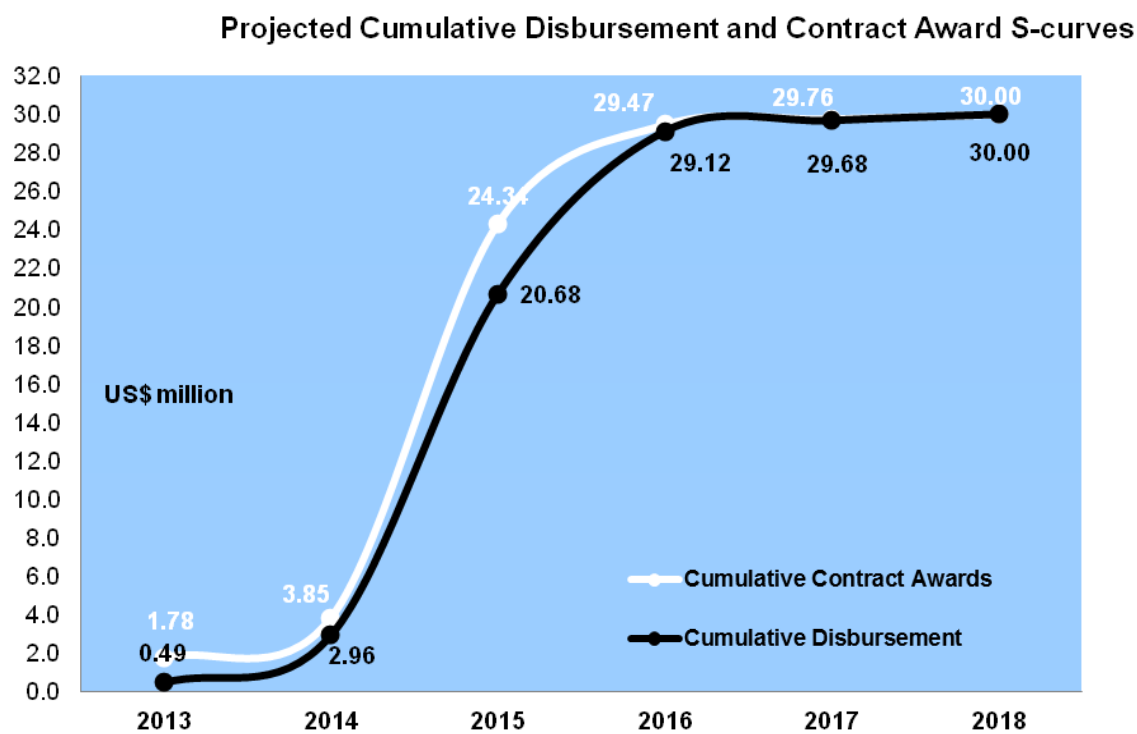
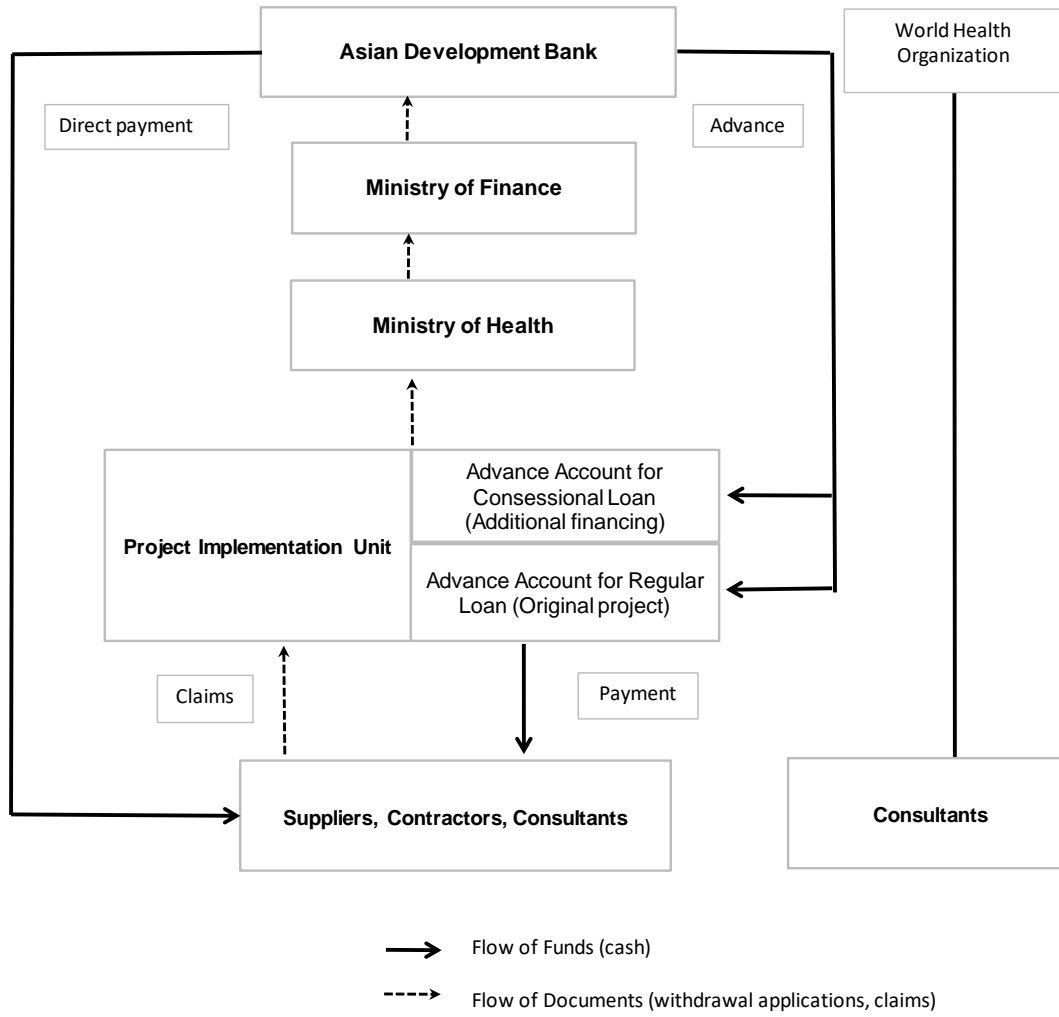
Figure 2: Contract and Disbursement S-Curve (Current Project)

Figure 3: Fund Flow Diagram



V. FINANCIAL MANAGEMENT (OVERALL)

A. Financial Management Assessment

29. The project has no revenue-earning component, hence financial costs and benefits were not analyzed. The financial sustainability of the project was assessed at the fiscal and project levels. An analysis of recent and projected government expenditures was undertaken to evaluate the potential impact of the project on the budget of the Ministry of Health (MOH). The MOH will contribute counterpart funding and shoulder the project's O&M costs during implementation. The government's annual share of project costs will average about \$1.5 million or less than 0.6% of the health sector annual budget in 2011. The recurrent costs of the project, to be borne by the Government of Mongolia, are estimated to be about \$0.4 million per annum and include operation and maintenance and consumable costs of the project facilities. The annual recurrent costs to be borne by the executing agency will not exceed 0.15% of its current expenditure. Considering an average depreciation value of \$2 million per annum for the equipment, the recurrent cost impact will be \$2.4 million per annum, which represents about 1% of the total recurrent costs of 2011. The counterpart funding and operation and maintenance costs are considered both financially sustainable and affordable.

30. A financial management assessment concluded that the MOH is experienced in managing Asian Development Bank (ADB) projects and is prepared for project implementation. The financial management analysis identified issues that will be addressed through the maintenance of project accounts by a project implementation unit (PIU) dedicated to the project and through external audits for the project duration. The government has committed to provide the necessary funds to ensure that the investment benefits are not lost. This would especially apply for the National Center for Transfusion Medicine as the additional recurrent costs generated by the project for the National Center for Transfusion Medicine will represent approximately \$0.15 million which is 10% the total budget of the National Center for Transfusion Medicine in the year 2011.

31. Financial management assessment conducted for the executing agency and the three implementing agencies noted that all the agencies have adequate accounting professionals equipped with computerized financial accounting and reporting system and procedures on flow of accounting, financial, and project physical progress related to their current project activities. All the agencies have clearly defined responsibilities with accountability allocated among different units at different levels of authority within their institutions. According to the audit law of the Government of Mongolia, the three agencies are currently subject to annual auditing conducted by independent auditors. In general, the financial management assessment has concluded that the current financial management system in the agencies can meet the general requirements of the government in terms of staffing, accounting, and internal control. The MOH/PIU has the capacity to administer advance account and use SOE procedures. A risk analysis was carried out as part of the project design requirements. The financial risk assessment was carried out in accordance with the principles established by ADB and the summary of this analysis is shown in the table below.

Table 20: Risk Assessment and Mitigation Measures

Risk		
Risk	Risk Assessment	Risk Mitigation Measures
a. Funds flow	Medium	The government has provided assurance on the timely availability of counterpart funds starting in 2013.
b. Internal audit	Medium	MOH Internal Auditing, Monitoring and Evaluation Department will provide internal control services. The implementation consultants will also review and assess the adequacy of this arrangement.

Risk	Risk Assessment	Risk Mitigation Measures
c. External audit	Medium	An external auditor acceptable to ADB will audit the project accounts annually in accordance with the international standards of auditing. Audited project accounts are required to be submitted to ADB within 6 months after the end of a calendar year.
d. Accounting policies and procedures	Medium	Accounting policy and procedures manual for the PIU will be based on the manual of the Fourth Health Sector Development Project, taking into account the national accounting standards and the requirements of ADB.
e. Reporting and monitoring	Low	The PIU and the implementation consultants will regularly report in accordance with ADB requirements on inherent adequate control mechanisms.
f. Information systems	Low	The computerized information systems established for the Fourth Health Sector Development Project will be used by the PIU. The implementation consultants will assist the PIU to strengthen the efficiency of existing information system and reporting.

ADB = Asian Development Bank, MOH = Ministry of Health, PIU = project implementation unit.

B. Disbursement

32. The loan for the original project and the additional financing loan proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2017, as amended from time to time),¹⁵ and detailed arrangements agreed upon between the government and ADB. Online training for project staff on disbursement policies and procedures is available.¹⁶ Project staff are encouraged to avail of this training to help ensure efficient disbursement and fiduciary control.

33. The PIU will be responsible for (i) collecting and retaining supporting documents, (ii) preparing withdrawal applications, and (iii) submitting withdrawal applications to the MOH. MOH reviews, endorses, and submits withdrawal applications and submits them to MOF who will be responsible for sending withdrawal applications to ADB.

34. **Advance fund procedure.** To facilitate project implementation and timely release of loan proceeds, the Government of Mongolia, through the MOF, after loan effectiveness, will establish two advance accounts, one for each loan. MOF has established the USD accounts under the Treasury Single Account (TSA) at the MOF. The PIU (under MOH) will manage the advance accounts on behalf of the MOH. The currency of the advance accounts is the US dollar, however, an account will be opened in local currency after approval by ADB to allow for payment of invoices in local currency. The advance accounts are to be used exclusively for ADB's share of eligible expenditures. MOH who administers the advance accounts is accountable and responsible for proper use of advances to the advance accounts. To facilitate project implementation the MOF established MNT local currency accounts under the TSA at the MOF.

35. The MOH may request for initial and additional advances to the advance accounts based on an Estimate of Expenditure Sheet¹⁷ setting out the estimated expenditures to be financed through the accounts for the forthcoming 6 months. The total outstanding advance to the advance accounts should not exceed this estimate. For every liquidation and replenishment request of the advance account, the government will furnish the ADB with (i) Statement of Account (Bank

¹⁵ The handbook is available electronically from the ADB website: <http://www.adb.org/documents/loan-disbursement-handbook>.

¹⁶ Disbursement eLearning. http://wpqr4.adb.org/disbursement_elearning.

¹⁷ Estimate of Expenditure sheet is available in Appendix 8A of ADB's *Loan Disbursement Handbook* (2017, as amended from time to time).

Statement), and (ii) the Advance Account Reconciliation Statement reconciling the bank statement against the executing agency's records. 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 accounts.

36. **Statement of expenditure procedure.**¹⁸ The SOE procedure may be used for reimbursement of eligible expenditures or liquidation of advances to the advance accounts. 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.

37. Before the submission of the first withdrawal application, 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 withdrawal application is stipulated in the *Loan Disbursement Handbook* (2017, as amended from time to time). Individual payments below such amount should be paid (i) by the MOH and subsequently claimed to ADB through reimbursement, or (ii) 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 Disbursements¹⁹ system is encouraged for submission of withdrawal applications to ADB.

C. Accounting

38. The MOH will cause the IAs, through the PIU, to maintain, or cause to be maintained, separate books and records by funding source for all expenditures incurred on the project following accrual-based accounting following the national accounting standards. The MOH will prepare consolidated project financial statements in accordance with the government's accounting laws and regulations which are consistent with international accounting principles and practices.

39. The MOH shall follow the Regulation No. 196 on the utilization of proceeds of foreign loans of the government; implementation, administration, financing, monitoring and evaluation of projects and programs funded by such proceeds, approved under the Order of the Minister of Finance and other relevant regulations approved and amended from time to time, provided they do not conflict with the provisions of the loan agreement, this PAM or ADB policies.

D. Auditing and Public Disclosure

40. The MOH will cause the detailed consolidated project financial statements to be audited, in accordance with International Standards on Auditing and government's audit regulations, 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 MOH.

¹⁸ SOE forms are available in Appendix 7B and 7D of ADB's *Loan Disbursement Handbook* (2017, as amended from time to time).

¹⁹ The Client Portal for Disbursements facilitates online submission of withdrawal application 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>.

41. 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).

42. 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.

43. 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.²⁰ 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.

44. 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.²¹ After the review, ADB will disclose the audited project financial statements and the opinion of the 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 and additional auditor's opinions will not be disclosed.

²⁰ ADB's approach and procedures regarding delayed submission of audited project financial statements:

- (i) 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.
- (ii) 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.

²¹ Available at: <https://www.adb.org/sites/default/files/institutional-document/450636/access-information-policy.pdf>.

VI. PROCUREMENT AND CONSULTING SERVICES

1. Additional Financing

45. The Additional Financing (AF) for Emergency Assistance for COVID-19 will adopt the existing procurement arrangements of the Mongolia: Fifth Health Sector Project; provided that procurement shall not be restricted to member countries of ADB. Notwithstanding the foregoing, the Borrower may restrict procurement to ADB member countries except where ADB has determined that such restriction is not conducive to the efficient procurement of Goods, Works or Consulting Services to enable the project to achieve its purposes, in which circumstances ADB may require the Borrower to apply universal procurement. The same executing agency (EA), implementing agencies (IAs), and project implementation unit (PIU) of the on-going loan will be used for the AF. To make the transition seamless and to avoid start-up delays, the procurement of goods, works and consulting services under the AF will follow the Procurement Guidelines and the Consulting Guidelines, which have been being used under the on-going loan, as amended from time to time, including, in the case of the AF, as modified by ADB board paper, *ADB's Comprehensive Response to the COVID-19 Epidemic, Manila, 13 April 2020*. The AF will also benefit from all ADB's guidance and flexibility allowed under emergency operations to ensure that goods, works and consulting services will be procured in the most efficient manner with due consideration of quality, economy, and integrity.²²

46. A rapid project procurement risk assessment (PPRA) was conducted to assess the capacity of the EA, IAs, and PIU to procure goods, works, and consulting services under the AF. The PPRA found that they have established procurement procedures and adequate staffing, and have significant procurement experience, including with foreign-funded and ADB-financed projects. However, their experience in dealing with emergency situations is limited. The PPRA also assessed the market risks associated with this operation and found that the EA, IAs, and PIU will face challenges caused by the unprecedented increase in demand of medical goods worldwide and supply chain disruptions due to the pandemic. None of the medical goods identified to be financed out of the proceeds of the AF is produced in the country and stocks from local suppliers/distributors/agents is limited or non-existent. Therefore, the project will rely mainly on imports, which raises the questions of delivery time and prices. The main sources of medical goods would be from the People's Republic of China (PRC), Japan, South Korea, and European countries.

47. To address the above identified risks, the following measures are recommended and being implemented: (i) the ADB project team work with the EA/IAs/PIU to identify needs and sources of supplies, and devise appropriate procurement packaging and sourcing strategies; (ii) streamlined and flexible procurement methods (e.g., direct contracting and shopping) will be allowed, with justifications and price validation; and (iii) a three-month (instead of 18-month) detailed procurement plan will be prepared which will be revisited/updated on a monthly basis in order to respond to uncertainty in both demand from the project and supply from the market.

A. Advance Contracting and Retroactive Financing

48. All advance contracting to be financed out of the proceeds of the AF shall be subject to and governed by the Procurement Guidelines and Consulting Guidelines and with ADB's prior

²² Include: (i) the ADB's Guidance Note on Fragile, Conflict-Affected and Emergency Situations (June 2018); and (ii) the Updated Emergency Procurement Guidance on Responding to the Coronavirus Disease 2019 (COVID-19) dated 6 April 2020.

agreement as set out in the procurement plan. The Borrower and the EA/IAs/PIU have been advised that approval of advance contracting does not commit ADB to finance the project.

49. Advance contracting is anticipated for six packages of medical goods, one package of works, PIU staff (consultants) and two packages of consulting services – see the procurement plan for details. Advance actions will include preparation of technical specifications; identification of sources of supplies and potential suppliers or contractors; preparation and issuance of requests for quotations and purchase orders; evaluation of bids/quotations; issuance of invitations for contract negotiations; contract negotiations; preparation of draft negotiated contracts; and award of t contracts.

50. Retroactive financing will apply. Withdrawals from the Loan Account may be made for reimbursement of eligible expenditures incurred under the AF Project before the Effective Date in connection with medical equipment needed for COVID19 treatment and prevention, subject to a maximum amount equivalent to 30% of the Loan amount; provided that the expenditures have been incurred after the emergency occurred but not earlier than 26 February 2020, the day government issued the resolution to finance COVID 19 emergency response action in the health sector.

B. Procurement of Goods, Works and Consulting Services

51. All procurement of goods and works will be undertaken in accordance with ADB's Procurement Guidelines, as amended. International competitive bidding (ICB) will be applied to goods contracts estimated to cost \$2,000,000 or more and works contracts estimated to cost \$5,000,000 or more. Goods contracts with values of less than \$2,000,000 and works contracts with values of less than \$5,000,000 will follow national competitive bidding (NCB). Works and goods contracts with values less than \$100,000 will be procured using ADB's shopping procedure (see also the para. below on shopping). NCB procurement will be carried out on the basis of NCB procedures, in accordance with the Mongolian Public Procurement Law, subject to modifications agreed with ADB, and following the Standard Bidding Documents agreed between ADB and the Ministry of Finance. Foreign contractors may participate in bidding for NCB contracts.

52. In accordance with ADB's guidance on procurements under emergency situations, direct contracting may be allowed subject to justifications and with ADB's prior agreement. Price validation will be required to ensure economy and integrity of the procurement process. Shopping method may be used even for higher-value contracts with justifications. While most contracts will be subject to ADB's post-review to ensure shortest procurement lead-time possible, for very high value contracts, prior review by ADB may be warranted.

53. Equipment packages will include the necessary technical support for ensuring proper installation, testing, commissioning, and training of operational staff as part of the related contracts, and maintenance contracts to be included in the main contract, as appropriate.

54. All consultants will be recruited according to the Consulting Guidelines, as amended. It is anticipated that three individual consultants will be recruited with a total of 5 person-months inputs (TORs will be developed). The need for consulting services will be reassessed during implementation and adjustments may be needed.

55. A three-month procurement plan indicating method thresholds and review procedures for goods, works, and consulting service packages and national competitive bidding procedures is in section below. All ICB packages will be subject to prior-review whereas all NCB packages will be

subject to post-review. For emergency procurements, where ADB allows the use of direct contracting and shopping methods, if the Borrower fails to procure these packages within the agreed timeframes, ADB may request the Borrower to use more competitive methods through updating of the procurement plan.

PROCUREMENT PLAN- Additional financing

Basic Data

Project Name: Mongolia: Fifth Health Sector Project (Emergency Assistance for COVID 19 – Additional Financing)	
Project Number: 45009	Approval Number: XXXX
Country: MONGOLIA	Executing Agency: Ministry of Health
Project Procurement Classification: A	Implementing Agency: Ministry of Health
Procurement Risk: High	
Project Financing Amount: \$ 34.43 Million ADB Financing: \$30 million Cofinancing (ADB Administered): Non-ADB Financing: \$4.43 Government	Project Closing Date: 30 April 2022
Date of First Procurement Plan 9 April 2020	Date of this Procurement Plan: 17 April 2020

A. Methods, Thresholds, Review and **Three-Month** Procurement Plan

1. Procurement and Consulting Methods and Thresholds

Except as the Asian Development Bank (ADB) may otherwise agree, the following process thresholds shall apply to procurement of goods and works.

Procurement of Goods and Works		
Method	Threshold	Comments
International Competitive Bidding (ICB) for Works	\$5,000,000	Prior review
International Competitive Bidding for Goods	\$2,000,000	Prior review
National Competitive Bidding (NCB) for Works	Beneath that stated for ICB, Works	Post-review
National Competitive Bidding for Goods	Beneath that stated for ICB, Goods	Post-review
Shopping for Works	Below \$100,000	Post-review generally. This threshold does not apply to contracts for emergency. Contracts of \$2,000,000 or above will be subject to prior review
Shopping for Goods	Below \$100,000	Post-review generally. This threshold does not apply to contracts for emergency. Contracts of \$2,000,000 or above will be subject to prior review
Direct Contracting		Subject to justifications and ADB's prior approval. Price validation is required.

Consulting Services	
Method	Comments
Individual Consultants	Post-review

2. Goods and Works Contracts

The following table lists goods and works contracts for which the procurement activity is either ongoing or expected to commence within the next **three (03) months**.

Package Number	General Description	Estimated Value (USD)	Procurement Method	Review [Prior / Post/Post (Sampling)]	Bidding Procedure	Advertisement Date (quarter/year)	Comments
G01	Equipment for CSSDs in 7 aimag hospitals – Group 1	709,000	Shopping	Post	RfQ	Q2/2020	Emergency procurement; Tax inclusive
G02	Equipment for CSSDs in 7 aimag hospitals – Group 2	1,506,397	Shopping	Post	RfQ	Q2/2020	Emergency procurement; Tax inclusive
CW01	Design and Build for CSSDs in 7 aimag hospitals	531,300	Shopping	Post	RfQ	Q2/2020	Emergency procurement; Advance contracting; May be split into smaller contracts for different aimags; Tax inclusive
CW02	Design and Build for warehouse facility for emergency medicines and supplies	1,270,500	Shopping	Post	RfQ	Q2/2020	Emergency procurement; Tax inclusive
G03	Diagnostic and treatment equipment for risk patients – Group 1	3,181,401	Shopping	Prior	RfQ	Q3/2020	Emergency procurement; Tax inclusive
TK01	Turnkey contract for angiography system (angiography system, bi-plane neurosurgery, and civil works for angiography room)	2,681,910	Shopping	Prior	RfQ	Q3/2020	Emergency procurement; Tax inclusive
G04	Intensive care unit ventilators	9,993,000	Shopping	Prior	RfQ	Q2/2020	Emergency procurement;

							Advance contracting; Tax inclusive
G05	Intensive care unit other equipment – Group 1	5,778,950	Shopping	Prior	RfQ	Q2/2020	Emergency procurement; Advance contracting; Tax inclusive
G06	Intensive care unit other equipment – Group 2	278,326	Shopping	Post	RfQ	Q2/2020	Emergency procurement; Advance contracting; Tax inclusive
G07	Ambulance cars for aigmag hospitals	2,587,868	Shopping	Prior	RfQ	Q2/2020	Emergency procurement; Advance contracting; Tax inclusive
G08	Protective wear for healthcare professionals	254,100	Shopping	Post	RfQ	Q2/2020	Emergency procurement; Advance contracting; Tax inclusive
G09	Laboratory testing equipment	1,284,360	Shopping	Post	RfQ	Q2/2020	Emergency procurement; Advance contracting; Tax inclusive

3. Consulting Services Contracts

The following table lists consulting services contracts for which the recruitment activity is either ongoing or expected to commence within the next **three (03) months**.

Package Number	General Description	Estimated Value (USD)	Recruitment Method	Review (Prior / Post)	Advertisement Date (quarter/year)	Type of Proposal	Comments
CS01	Architect for conceptual design for warehouse facility for	30,000	ICS	Post	Q2/2020		International; 2 PM

	emergency medicines and supplies						Advertisement may be waived; Advance contracting
CS02	Emergency medical supply logistics specialist	30,000	ICS	Post	Q2/2020		International; 2 PM Advertisement may be waived; Advance contracting
CS03	Economic analyst	15,000	ICS	Post	Q2/2020		International; 0.5 PM Advertisement may be waived.
CS04	Environmental monitoring expert	10,000	ICS	Post	Q2/2020		National; 4 PM Advertisement may be waived.
CS05	Civil works supervision consultant	36,000	ICS	Post	Q2/2020		National; 15 PM Advertisement may be waived.
CS06	Social safeguards specialist	6,000	ICS	Post	Q2/2020		National; 2.5 PM Advertisement may be waived.

B. Indicative List of Packages Required Under the Project

The following table provides an indicative list of goods, works and consulting services contracts over the life of the project, other than those mentioned in previous sections (i.e., those expected beyond the current period).

Goods and Works							
Package Number	General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Procurement Method	Review [Prior / Post/Post (Sampling)]	Bidding Procedure	Comments
G10	Diagnostic and treatment	1,280,000	1	Shopping	Post	RfQ	Tax inclusive

Consulting Services								
Package Number	General Description	Estimated Value	Contract Value	Recruitment Method	Advertisement Date (quarter/year)	Date of ADB Approval of Contract Award	Date of Completion	Comments

D. Non-ADB Financing

The following table lists goods, works and consulting services contracts over the life of the project, financed by Non-ADB sources.

Goods and Works				
General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Procurement Method	Comments

Consulting Services				
General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Recruitment Method	Comments

National Competitive Bidding

A. Regulation and Reference Documents

1. The procedures to be followed for national competitive bidding shall be those set forth in the Public Procurement Law of Mongolia of 1 December 2005, effective 1 February 2006, as amended in February 2007; July 2009; and February, June and December 2011 (hereinafter referred to as PPLM), with the clarifications and modifications described in the following paragraphs required for compliance with the provisions of the ADB *Procurement Guidelines*.

B. Procurement Procedures

1. Eligibility [Recommended standard provision]

2. The eligibility of bidders shall be as defined under section I of the Procurement Guidelines; accordingly, no bidder or potential bidder should be declared ineligible for reasons other than those provided in section I of the Guidelines, **as amended from time to time**, including as modified by ADB board paper, *ADB's Comprehensive Response to the COVID-19 Epidemic, Manila, 13 April 2020*.

3. Government-owned enterprises in Mongolia shall be eligible for projects only if they can establish that they: (i) are legally and financially autonomous; (ii) operate under the principles of commercial law; and (iii) are not dependent agencies of the Borrower, Beneficiary, Recipient Executing Agency and/or the Implementing Agency.

2. Participation of Foreign Bidders

4. International bidders from eligible member countries of ADB [(or, where ADB has determined that universal procurement should apply, from all countries eligible under universal procurement)] shall be allowed to participate in local procurement and may not be denied participation due to nationality.

3. Preferences

5. No domestic preference shall be given for domestic bidders and for domestically manufactured goods.

4. Prequalification and Registration

6. Prequalification is discouraged for procurement contracts using NCB. When used, particularly for works contracts, an individual prequalification exercise is acceptable for each contract as is the use of a registration system (or approved standing list) of contractors based on criteria such as experience, financial capacity, and technical capacity. Foreign bidders from eligible countries must, however, be allowed to register and to bid without unreasonable cost or additional requirements.

5. Rejection of All Bids and Rebidding

7. All bids shall not be rejected, or new bids invited without ADB's prior written concurrence.

8. No bid shall be rejected merely on the basis of a comparison with the estimated cost or budget ceiling without ADB's prior written concurrence (with specific reference to Article 30 of the PPLM).

C. Bidding Documents

6. Use of Bidding Documents

9. National Standard Bidding Documents Goods and Works that have been approved for procurement in ADB-financed projects shall be used.

7. Language

10. Bidding documents may be prepared in other languages, but a copy of the bidding documents must be made available in English and submitted to ADB for review.

8. Bid Validity

11. Bidders shall be requested to extend the validity of their bids only under exceptional circumstances and the Executing or Implementing Agency, as the case may be, shall communicate such request for extension to all bidders before the date of expiry of their bids.

When the procurement is subject to ADB's prior review, the Executing or Implementing Agency, as the case may be, shall obtain in a timely manner the prior written concurrence of ADB for the extension of the bid validity period.

9. Bid Evaluation

12. Evaluation and qualification criteria, and submission requirements, to be used in each bidding activity shall be clearly specified in the bidding documents. The evaluation of bids shall be done in strict adherence to the criteria specified in the bidding documents.

13. Negotiations with bidders shall not be undertaken before award of contract, except as provided in Paragraph 2.63 of ADB's Procurement Guidelines A bidder shall not be required, as a condition for award, to undertake obligations not specified in the bidding documents or otherwise to modify its bid as originally submitted.

14. At the same time that notification on award of contract is given to the successful bidder, the results of the bid evaluation shall be posted on a well-known freely accessible website (namely Mongolia's Ministry of Finance e-procurement website: www.e-procurement.mn) identifying the bid and lot numbers and providing information on the: (i) name of each bidder that submitted a bid; (ii) bid prices as read out at bid opening; (iii) names of bidders whose bids were rejected and the reasons for their rejection; and (iv) name of the winning bidder, and the price it offered, as well as the duration and summary scope of the contract awarded. The Executing Agency or Implementing Agency, as the case may be, shall respond in writing to unsuccessful bidders who seek explanations on the grounds on which their bids were not selected.

10. ADB Policy Clauses

15. A provision shall be included in all NCB 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.

16. A provision shall be included in all bidding documents for NCB works and goods contracts financed by ADB stating that 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, coercive or obstructive practices in competing for the contract in question.

17. A provision shall be included in all bidding documents for NCB works and goods contracts financed by ADB stating that 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 or any integrity violation in competing for, or in executing, ADB-financed contract.

2. PROCUREMENT PLAN- CURRENT PROJECT

56. A procurement capacity assessment (PCA) was conducted to assess the capacity of the executing agency and implementing agencies to procure goods, works and consulting services under the project. The PCA found that, while the executing agency and implementing agencies have established procurement procedures and staffing, and have significant procurement

experience, including with foreign-funded projects, including ADB-financed projects, the PCA recommends that training and support should be provided on ADB procurement policies and procedures. The PCA is in Annex 1 of Attachment 1: Financial and Procurement Management Assessment Report of this project administration manual.

A. Advance Contracting and Retroactive Financing

57. All advance contracting to be financed out of the proceeds of the loan shall be subject to and governed by the Asian Development Bank's (ADB) Procurement Guidelines²³ (2010, as amended from time to time) and Guidelines on the Use of Consultants²⁴ (2010, as amended from time to time). The issuance of invitations to bid under advance contracting shall be subject to ADB approval. The Borrower and the executing agency have been advised that approval of advance contracting does not commit ADB to finance the project.

58. Advance contracting for the recruitment of the consulting firm through quality- and cost-based selection (QCBS; ratio 80:20) will include preparation of the terms of reference, advertising, preparation of the request for proposal and short-listing of consultants, issuing of the request for proposal, and evaluation of the technical and financial proposals; a similar process based on consultants' qualification selection (CQS) will apply for the selection of the local architectural/engineering firm. The selection of the national monitoring and evaluation specialist will be based on individual consultant selection (ICS). All bidding documents will be subject to ADB approval. The contract to recruit the firms/individual will be signed after loan effectiveness. The new construction of the National Center for Transfusion Medicine (NCTM) amounts to \$2.45 million will be funded entirely by the government and tendered based on the Mongolian procurement law.²⁵

59. There shall be no retroactive financing for this project.

B. Procurement of Goods, Works and Consulting Services

60. All procurement of goods and works will be undertaken in accordance with ADB's Procurement Guidelines. International competitive bidding (ICB) will be applied to goods contracts estimated to cost \$500,000 or more and works contracts estimated to cost \$1,000,000 or more. Goods contracts with values less than \$500,000 and works contracts with values less than \$1,000,000 will follow national competitive bidding (NCB). Works and goods contracts with values less than \$50,000 will be procured using ADB's shopping procedure. NCB procurement will be carried out on the basis of NCB procedures, in accordance with the Mongolian Procurement Law, subject to modifications agreed with ADB. Before the start of any procurement, ADB and the government will review the public procurement laws of the state to ensure consistency with ADB's Procurement Guidelines. The internationally tendered equipment packages will include the necessary technical support for ensuring proper installation, testing, commissioning, and training of operational staff as part of the related contracts, and maintenance contracts to be included in the main contract. In accordance with ADB requirements, foreign contractors may participate in bidding for NCB contracts. An 18-month procurement plan indicating threshold and review procedures, goods, works, and consulting service contract packages and national competitive bidding guidelines is in Section C. For NCB, the first draft English language of the procurement

²³ Available at: <http://www.adb.org/Documents/Guidelines/Procurement/Guidelines-Procurement.pdf>

²⁴ Available at: <http://www.adb.org/Documents/Guidelines/Consulting/Guidelines-Consultants.pdf>

²⁵ The cost of \$2.45 million corresponds to approximately MNT3.4 billion; MNT2.3 billion is allocated in the draft 2013 budget of the Ministry of Health.

documents (advertisements and invitations, bidding documents, draft contract) should be submitted for ADB approval regardless of the estimated contract amount. Subsequent procurement is subject to post review. All ICB contracts are subject to prior review. Prior review and approval of ADB of the procurement documents (advertisements and invitations, bidding documents, draft contract) is required.

61. The Borrower is responsible for selecting, engaging, and supervising consultants engaged under the loan funded by ADB. All consultants will be recruited according to ADB's Guidelines on the Use of Consultants. A consultant firm to provide a total of 129 person-months of consulting services (37 international, 92 national) will be recruited to support the executing agency in project implementation and capacity development for all project components. The consulting firm will be engaged using QCBS method with the standard quality-cost ratio of 80:20. Three consulting firms will be engaged under lump sum contracts using CQS for facilitating international accreditation of the NCTM, architectural support for project facilities and environmental assessment of the central medical waste management facility. The firms are required to submit full technical proposals under QCBS and biodata technical proposals under CQS. In total, 33 person-months of national consultants will be recruited for all three components following ICS procedure for providing safeguards, social, technical, legal, and monitoring support to the project. The terms of reference for all consulting services are outlined in Section D.

62. WHO will cofinance consulting services (\$420,000), training (\$20,000) and equipment (\$40,000) for the following activities:

- (i) Component 1: capacity building and equipment for quality improvement of blood transfusion services.
- (ii) Component 2: training to scale-up initiatives of mercury-free health care facilities.
- (iii) Component 3: develop technical guidelines for infection prevention and control and training of infection prevention and control practitioners.

63. The German Federal Ministry of Health will assist in Component 3 by funding one annual overseas training to Germany for infection prevention and control staff from project sites, and 5 person-months of consulting services for hospital hygiene and infection prevention and control.

A. Procurement Plan (Current Project Updated)

Basic Data

Project Name: Fifth Health Sector Development Project	
Country: Mongolia	Executing Agency: Ministry of Health
Loan Amount: \$30,000,000	Loan Number: 2963
Date of First Procurement Plan:	Date of this Procurement Plan:

1. Process Thresholds, Review and 18-Month Procurement Plan

45. Project procurement thresholds, Except as ADB may otherwise agree, the following process thresholds shall apply to procurement of goods and works.

Procurement of Goods and Works

Method	Threshold
International Competitive Bidding for Goods	Equal or more than \$2,000,000
International Competitive Bidding for Works	Equal or more than \$5,000,000
National Competitive Bidding for Goods	Equal or more than \$100,000 and below \$2,000,000
National Competitive Bidding for Works	Equal or more than US\$100,000 and below \$5,000,000
Shopping for Goods	Below \$100,000
Shopping for Works	Below \$100,000

Source: Asian Development Bank estimates.

46. ADB Prior or post review. Except as ADB may otherwise agree, the following prior or post review requirements apply to the various procurement and consultant recruitment methods used for the project. (See Procurement Guidelines, Appendix 1 and Guidelines on the Use of Consultants, paragraph 1.16).

Procurement Method	Prior or Post	Comments
Procurement of Goods and Works		
ICB Works	Prior	All
ICB Goods	Prior	All
NCB Works	Post	Except for the first procurement which will be subject to prior review
NCB Goods	Post	Except for the first procurement which will be subject to prior review
Shopping for Works	Post	
Shopping for Goods	Post	
Recruitment of Consulting Firms		
QCBS	Prior	Quality cost ratio of 80:20 and 90:10
CQS	Prior	
Recruitment of Individual Consultants		
Individual consultant selection	Prior	

CQS = consultants' qualification selection, ICB = international competitive bidding, NCB = national competitive bidding, QCBS = quality- and cost-based selection.

Source: Asian Development Bank estimates.

2. Goods and Works Contracts Estimated to Cost More Than \$1 million

47. The following table lists goods and works contracts.

General Description	Contract Value (\$)	Procurement Method	Prequalification of Bidders (yes/no)	Advertisement Date (quarter/year)	Comments
G1: Medical equipment for CSSDs	5,659,219	ICB	no	Q4 2017	
G2: Medical equipment for microbiology laboratories	3,169,305	ICB	no	Q4 2017	
G16: Medical equipment for CSSDs of 7 hospitals	1,872,961	ICB	no	Q3 2019	
TBA04: Medical equipment for NCTM	3,799,783	ICB	no	Q2 2015	
TBA03: Medical equipment for aimag and model blood banks	4,149,440	ICB	no	Q2 2015	financed by the government
Construction of new NCTM	2,356,000	Open Tendering	no	Q3 2012	financed by the government and procured under Mongolian procurement law

CSSD = Central Sterilization Service Department, ICB = international competitive bidding, NCTM = National Center for Transfusion Medicine, Q = quarter.

Source: Asian Development Bank estimates.

3. Consulting Services Contracts Estimated to Cost More Than \$100,000

48. The following table lists consulting services contracts.

General Description	Contract Value (\$)	Recruitment Method	Advertisement Date (quarter/year)	Comments
Consulting firm for blood safety, medical waste	1,549,185	QCBS (80:20)	Q3 2013	Advance contracting, includes the following individuals ²⁶

²⁶ **International:** Public Health IPC/Team Leader = 11 person-months; Biomedical Engineering = 8 person-months; Blood Bank Quality Management = 4 person-months; Medical Waste Expert = 6 person-months; CSSD in-country training = 2 person-months; Microbiology SOP/Lab Compliance = 2 person-months; Medical Waste Recycling = 2 person-months; Stream Treatment Plant Expert = 2 person-months.

National: Public Health IPC = 20 person-months; Biomedical Engineering = 36 person-months; Blood Bank Quality Management = 4 person-months; Voluntary Non-Remunerated Blood Donation = 4 person-months; Medical Waste

management, and infection prevention and control				
Architectural/engineering firm	147,328	CQS	Q4 2013	Advance contracting

CQS = consultants' qualification selection, Q = quarter, QCBS = quality- and cost-based selection.

Source: Asian Development Bank estimates.

4. Goods and Works Contracts Estimated to Cost Less than \$1 Million and Consulting Services Contracts Less than \$100,000

49. The following table groups smaller-value goods, works and consulting services contracts.

General Description	Contract Value (\$)	Procurement/ Recruitment Method	Advertisement Date (quarter/year)	Comments
CW1: Construction for medical waste infrastructure (aimag level, P-1)	77,663	NCB	Q2 2016	
CW3: Minor civil works for microbiology laboratories and CSSDs (P-3)	558,915	NCB	Q1 2018	
CW4: Minor civil works for microbiology laboratories and CSSDs (P-4)	175,653	NCB	Q1 2018	
CW5: Minor civil works for microbiology laboratories and CSSDs (P-5)	183,379	NCB	Q1 2018	
CW6: Minor civil works for microbiology laboratories and CSSDs (P-6) Orkhon	424,260	NCB	Q4 2013	
CW7: Minor civil works for microbiology laboratories and CSSDs (P-7)	521,760	NCB	Q4 2013	
CW8: Minor civil works for aimag blood banks (P-8)	48,161	NCB	Q2 2016	
CW9: Minor civil works for aimag blood banks (P-9)	25,734	NCB	Q3 2016	
CW10: Minor civil works for aimag blood banks (P-10)	90,933	NCB	Q2 2016	
CW11: Minor civil works for model blood banks (P-11)	37,619	NCB	Q3 2016	
CW12: Engineering and Geotechnical survey	5,216	Shopping	Q2 2016	
CW14: Construction for Medical Waste infrastructure (aimag level, P14),	178,109	NCB	Q1 2018	
CW15: Engineering and Geotechnical survey for the Waste Management Infrastructure Facility of the	496	Shopping	Q4 2017	

Expert = 8 person-months; CSSD in-country training = 3 person-months; Microbiology SOP/Lab Compliance = 3 person-months; Biomedical Engineering Validation = 2 person-months; Trainers rational blood use = 12 person-months.

General Description	Contract Value (\$)	Procurement/ Recruitment Method	Advertisement Date (quarter/year)	Comments
Orkhon Aimag General Hospital				
CW17: Minor civil works of CSSDs of tertiary hospitals	471,589	NCB	Q4 2019	
CW18: Minor civil works for CSSD of First central hospital	40,033	NCB	Q4 2018	
CW19: Minor civil works for CSSD of Khuvsgul, Bayankhongor, Uvurkhangai	325,814	NCB	Q4 2018	
CW20: Minor civil works for CSSD of Dornod, Sukhbaatar	188,484	NCB	Q4 2018	
G1: Medical equipment for CSSDs	5,659,219	ICB	Q4 2017	
G2: Medical equipment for microbiology laboratories	3,169,305	ICB	Q4 2017	
G5: Equipment for medical waste for aimag, district and tertiary hospitals	709,640	NCB	Q1 2018	
G6: Fundamental supplies and reagents for microbiology laboratories of selected hospitals	7,699		Q2 2016	
G7: Laboratory equipment and furniture for NCTM	1,418,988	NCB	Q1 2018	
G8: Non-medical furniture for NCTM	132,907	NCB	Q3 2016	
G9: Fundamental supplies and reagents for microbiology laboratories of remaining hospitals	42,039	Shopping	Q2 2018	
G10: Supply, reagents and indicators for microbiology laboratories	7,492	Shopping	Q2 2018	
G11: Printing and dissemination of IEC/BCC materials	13,699	Shopping	Q2 2018	
G12: Printing of training materials and survey reports	8,808.27	Shopping	Q2 2018	
G13: Supply, reagents and indicators for microbiology laboratories and CSSDs	12,156	Shopping	Q2 2018	
G14: Printing of training materials and survey reports, 2nd phase	11,614	Shopping	Q2 2018	
G16: Medical equipment for CSSDs of 7 hospitals	1,872,961	ICB	Q3 2019	
G17: Intensive care and emergency service equipment for 2019-nCov complications	493,428	Shopping	Q1 2020	
G18: X-ray equipment to diagnose 2019-nCov	610,254	Shopping	Q1 2020	

General Description	Contract Value (\$)	Procurement/ Recruitment Method	Advertisement Date (quarter/year)	Comments
complications				
G19: Other equipment and tools for management of 2019-nCov complications	101,488	Shopping	Q1 2020	
TBA05: Non-medical and Maintenance equipment for NCTM	702,906	ICB	Q2 2015	
TBA23 Office equipment PIU	1,468	Shopping	Q4 2013	
TBA24 Vehicle	65,677	NCB	Q2 2014	
TBA25 Web-hosting	15,517	Shopping	Q3 2013	
CS1: BCC campaign on blood safety and IPC	64,607	CQS	Q3 2016	
CS2: KAP survey on blood donation among general population of Mongolia	54,000	ICS	Q3 2015	
CS3: KAP survey on IPC among health care workers of Mongolia	70,900	ICS	Q3 2015	
CS4: Health care waste management assessment	69,900	ICS	Q3 2015	
CS6: Accreditation firm for NCTM	15,600	SSS	Q1 2018	
CS7: new Cost analysis expert for IPC, blood safety and waste management	10,798	ICS	Q4 2016	
CS8: National consultant to develop detailed design drawings for CSSDs	22,920	ICS	Q3 2019	
TBA26: Monitoring and evaluation specialist	20,000	ICS	Q3 2013	
TBA27 Social poverty and gender specialist	20,500	ICS	Q4 2014	
TBA28: Environment expert	10,454	ICS	Q3 2013	
TBA29: Legal expert	16,812	ICS	Q3 2013	
TBA31: Expert for Design Quality Assessment of NCTM	21,800	ICS	Q4 2013	

CQS = consultants' qualification selection, CSSD = Central Sterilization Service Department, ICB = international competitive bidding, ICS = individual consultant selection, NCB = national competitive bidding, NCTM = National Center for Transfusion Medicine, P-1 to P-11 = tender packages, PIU = project implementation unit, Q = quarter. Source: Asian Development Bank estimates.

5. Indicative List of Packages Required Under the Project

50. 1The following table provides an indicative list of all procurement (goods, works, and consulting services) over the life of the project. Contracts financed by the Borrower and others should also be indicated, with an appropriate notation in the comments section.

General Description	Estimated Value (cumulative, \$)	Estimated Number of Contracts	Procurement Method	Domestic Preference Applicable (yes/no)	Comments
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CQS = consultants' qualification selection, CSSD = Central Sterilization Service Department, ICB = international competitive bidding, ICS = individual consultant selection, IPC = infection prevention and control, NCB = national competitive bidding, NCTM = National Center for Transfusion Medicine, P-1 to P-11 = tender packages, PIU = project implementation unit, Q = quarter, QCBS = quality- and cost-based selection.

Source: Asian Development Bank estimates.

6. National Competitive Bidding

64. The procedures to be followed for national competitive bidding shall be those set forth in the Public Procurement Law of Mongolia of 1 December 2005, effective 1 February 2006, as amended on 6 February 2007 and 16 July 2009 (hereinafter referred to as PPLM), with the clarifications and modifications described in the following paragraphs required for compliance with the provisions of ADB's Procurement Guidelines.

- (i) The Standard Bidding Documents of Mongolia for Goods and Works that have been approved by ADB as acceptable for ADB-financed projects, together with ADB's clarifications and modifications thereto, shall be used.
- (ii) Government-owned enterprises in Mongolia shall be eligible for projects only if they can establish that they (a) are legally and financially autonomous; (b) operate under the principles of commercial law; and (c) are not dependent agencies of the executing agency and/or the implementing agency.
- (iii) If a bid security is required, the bid security shall be in any of the following forms at the bidder's option: (a) a bank guarantee; or (b) a cashier's or certified check.
- (iv) Bidders must be nationals of member countries of ADB, and offered Goods and Works must be produced in and supplied from member countries of ADB. Bidders or potential bidders shall not be required to register with the taxation and other registration authorities of the government as a condition or requirement of bidding or award, leaving these requirements for after award and before signing of contract.
- (v) Foreign bidders from eligible countries of ADB shall be allowed to participate in bidding under the same conditions as local bidders and without any domestic preference.
- (vi) Prequalification shall not be required, except in the case of large or complex works, and with prior written concurrence of ADB.
- (vii) Qualification criteria shall be clearly specified in the bidding documents, and all criteria so specified shall be used to determine whether a bidder is qualified. The evaluation of a bidder's qualifications shall only take into account the bidder's capacity and resources to perform the contract, in particular its experience and past performance on similar contracts, capabilities with respect to personnel, equipment and construction or manufacturing facilities, and financial position. The evaluation of the bidder's

qualifications shall be conducted separately from the technical and commercial evaluation of the bid.

- (viii) Evaluation and qualification criteria, and submission requirements, to be used in each bidding activity shall be clearly specified in the bidding documents. The evaluation of bids shall be done in strict adherence to the criteria specified in the bidding documents.
- (ix) The invitation to bid and the bidding documents shall be prepared in the Mongolian language. If another language will be used, then such other language shall be English.
- (x) Bidders shall be requested to extend the validity of their bids only under exceptional circumstances and the executing or implementing agency, as the case may be, shall communicate such request for extension to all bidders before the date of expiry of their bids. When the procurement is subject to ADB's prior review, the executing or implementing agency, as the case may be, shall obtain in a timely manner the prior written concurrence of ADB for the extension of the bid validity period.
- (xi) All bids shall not be rejected, or new bids invited without ADB's prior written concurrence. No bid shall be rejected merely on the basis of a comparison with the estimated cost or budget ceiling without ADB's prior written concurrence (with specific reference to Article 30 of the PPLM).
- (xii) Negotiations with bidders shall not be undertaken before award of contract, except as provided in Paragraph 2.63 of ADB's Procurement Guidelines (with specific reference to Article 30.2 of the PPLM). A bidder shall not be required, as a condition for award, to undertake obligations not specified in the bidding documents or otherwise to modify its bid as originally submitted.
- (xiii) Bidding documents and contracts under national competitive bidding procedures financed by ADB shall include a provision requiring suppliers, contractors and consultants to permit ADB to inspect their accounts and records relating to the bid submission and the performance of the contract by the supplier, contractor and/or consultant, as the case may be, and to have them audited by auditors appointed by ADB, if so required by ADB.
- (xiv) At the same time that notification on award of contract is given to the successful bidder, the results of the bid evaluation shall be posted on a well-known freely accessible website (namely Mongolia's Ministry of Finance e-procurement website: www.e-procurement.mn) identifying the bid and lot numbers and providing information on the: (a) name of each bidder that submitted a bid; (b) bid prices as read out at bid opening; (c) names of bidders whose bids were rejected and the reasons for their rejection; and (d) name of the winning bidder, and the price it offered, as well as the duration and summary scope of the contract awarded. The executing agency or implementing agency, as the case may be, shall respond in writing to unsuccessful bidders who seek explanations on the grounds on which their bids were not selected.
- (xv) Bidding documents and contracts under national competitive bidding procedures financed by ADB shall include a provision requiring compliance with core labor standards.

B. Consultants' Outline Terms of Reference

65. The project will provide consulting services through three different selection methods: QCBS, CQS, and ICS in accordance with ADB's Guidelines on the Use of Consultants.

1. Quality- and Cost-Based Selection

66. Consulting firm for blood safety, medical waste management, and infection prevention and control. The consulting firm will be selected through QCBS method at the quality to cost ratio of 80:20 using full technical proposal procedure.

a. Safe Blood Transfusion

67. Biomedical Engineer for Maintenance (8 person-months, international). The consultant should have a post-graduate degree in biomedical engineering, and should have at least 8 years' experience in planning, implementing and monitoring of maintenance activities as well as provision of training in maintenance. The consultant will:

- (i) be responsible for the physical setting up of the new department of maintenance in the NCTM;
- (ii) promote the "life cycle approach" allowing for a more efficient equipment management and criteria for the procurement of (medical) equipment;
- (iii) set guidelines for training of users;
- (iv) develop a detailed inventory of all assets, assessment of financial resources for recurrent operation and maintenance costs, develop an information technology-based system for record keeping (asset registry);
- (v) develop work order and maintenance schedules, record keeping, proper maintenance and safety inspections of equipment;
- (vi) plan for preventive and corrective maintenance of equipment;
- (vii) assess training needs (equipment operations, basic principle of operation/measurements/ calibration and basic maintenance);
- (viii) conduct regular inspections and monitoring of equipment usage or utilization rate, equipment failures/ breakdowns and time taken for equipment service/ repairs at respective Health facilities;
- (ix) educate and train clinical staff, technicians and hospital administrators on the importance of understanding equipment failures, scheduling of preventive maintenance, setting maintenance indices and key performance indicators for maintenance and performance;
- (x) educate technicians and hospital administrators on the need to comply with the necessary infrastructure, and civil and engineering services requirements for equipment installation, which will have impact on equipment performance and life cycle; and
- (xi) assist in the management of supply contracts.

68. Biomedical engineer for maintenance (36 person-months, national). The expert should have a degree in engineering and will have at least 5 years of experience with maintenance systems. The consultant, in close cooperation with the international consultant, will assist in:

- (i) the physical setting up of the new department;

- (ii) promoting the “life cycle approach” allowing for a more efficient equipment management and criteria for the procurement of (medical) equipment;
- (iii) setting guidelines for training of users;
- (iv) developing a detailed inventory of all assets, assessment of financial resources for recurrent operation and maintenance costs, develop an information technology-based system for record keeping (asset registry);
- (v) developing order and maintenance schedules, record keeping, proper maintenance and safety inspections of equipment; and
- (vi) planning for preventive and corrective maintenance of equipment.

69. Expert on blood bank quality management (4 person-months, international). The consultant will be a post-graduate blood safety expert with at least 10 years of specific experience. The consultant should have extensive experience in quality management. He/she will work in close cooperation with WHO consulting services and the working group under the MOH on safe blood supply, and will:

- (i) coordinate activities related to the implementation of quality management procedures in the NCTM, the four model blood banks, and the *aimag* and *soum* blood banks;
- (ii) revise the training program for blood banks;
- (iii) coordinate and monitor training activities in all project facilities;
- (iv) assist in getting the NCTM to undergo accreditation;
- (v) review the quality management handbook and monitor the implementation of quality management procedures in all project blood banks; and
- (vi) conduct adequate public consultation and design a gender and culturally sensitive information, education, and communication program for blood donations.

70. Expert on blood bank quality management (4 person-months, national). The national consultant will have a post-graduate degree in related fields (medicine, public health, transfusion medicine), and in close cooperation with the international consultant on quality management, will assist in:

- (i) coordinating activities related to the implementation of quality management procedures in the NCTM, the four model blood banks, and the *aimag* and *soum* blood banks;
- (ii) preparing for readiness for accreditation;
- (iii) reviewing the quality management handbook, and monitoring that procedures in all facilities under the project follow the self-assessment and other quality management procedures; and
- (iv) conducting adequate public consultation and designing a gender and culturally sensitive information, education, and communication program for blood donations.

71. Expert on voluntary non-remunerated blood donation (4 person-months, national). The national consultant will have a post-graduate degree in related fields (medicine, public health, transfusion medicine), and in close cooperation with the WHO expert on voluntary non-remunerated blood donation and working group for safe blood supply, will assist to:

- (i) revise the training program for voluntary non-remunerated blood donation;
- (ii) coordinate and monitor training activities in all project facilities;
- (iii) organize workshops and blood collection camps;

- (iv) liaise with the Red Cross Society and other organizations involved in voluntary non-remunerated blood donation;
- (v) conduct adequate public consultation on blood donation; and
- (vi) develop in coordination with the NCTM, gender and culturally sensitive information, education, communication, and behavior change communication material for nationwide usage;

72. Two trainers on rational use of blood (2 trainers, total 12 person-months, national). The national consultants will have extensive experience in training on the rational use of blood and blood products, and will:

- (i) develop training modules pursuant to the guidelines developed by the MOH on the “Rational use of blood and blood products in common diseases”; and
- (ii) execute courses for physicians of Ulaanbaatar City, *aimag*, and *soum* hospitals.

a. Medical Waste Management

73. Health care waste expert (6 person-months, international). The consultant should have a post-graduate degree with concentration on waste management. The health care waste specialist should have at least 10 years of experience with the implementation of medical waste management systems; the implementation of non-burn medical waste treatment systems; and the set up of national monitoring, supervision, and training systems. The international medical waste specialist will:

- (i) carry out a baseline study on medical waste in Mongolia as indicator for future developments;
- (ii) plan the enlargement of the existing autoclave system and support the implementation;
- (iii) finalize the strategy for chemical hazardous waste management from the health care sector, participate and provide expertise in the planning of hazardous waste interim storage and treatment systems as well as in the inclusion of at least four *aimag* level hospitals;
- (iv) develop in cooperation with the MOH improved public-private-partnership and tariff models for health care waste management (including chemical and pharmaceutical waste);
- (v) provide expertise and support for the setup of the waste management systems at *aimag* level;
- (vi) ensure the training of all participating *aimag* level hospitals in waste management and provide support to the MOH for the institutionalizing of the existing waste training system;
- (vii) provide support and implement training for inspectors in the medical waste monitoring of health care facilities as well as waste treatment systems;
- (viii) set up a data collection, evaluation and reporting system on medical waste including medical waste generation and treatment rates at the National Center for Public Health; and
- (ix) provide input for the update of the national health care waste management plan as well as for the development of other specific orders and guidelines.

74. Consultant on medical waste management (8 person-months, national). The consultant should have a post-graduate degree in environmental science, should have at least 10 years of experience in environmental management and at least 3 years of experience in waste

management. Good written and spoken English is a must. The national consultant will:

- (i) support the international health care waste expert and the international expert on recycling and reusable sharp boxes in all aspects, including oral and written translation;
- (ii) assist in implementing the baseline study on medical waste as indicator for future developments;
- (iii) support the implementation of the enlargement of the existing autoclave system;
- (iv) participate and provide expertise in the planning of hazardous waste interim storage and treatment systems as well as in the inclusion of at least 4 *aimag* hospitals;
- (v) provide expertise and support for the setup of the waste management systems at *aimag* level;
- (vi) ensure the training of all participating *aimag* hospitals in waste management, provide support to the MOH for the institutionalizing of the existing waste training system, and provide training;
- (vii) provide support and training for inspectors in the medical waste monitoring of health care facilities as well as waste treatment systems;
- (viii) provide inputs for the update of the national health care waste management plan as well as for the development of other specific orders and guidelines;
- (ix) supervise the setup of a system for reusing of sharp containers;
- (x) provide training for the local operators and hospital staff in using the system; and
- (xi) supervise the setup of a system for the safe recycling of used one-way syringes and provide training.

75. Expert for medical waste recycling and sharp waste management (2 person-months, international). The expert should have a post-graduate degree in environmental sciences or related fields, and at least 5 years of recycling experience and at least 2 years of experience in the setup of reusable sharps containment systems for the collection and disposal of sharps waste. Applicant with experience in the training of health care personnel in infection control and sharps injury prevention will be favorably considered, and s/he will:

- (i) plan, design and set up a system for reusing of sharp containers in accordance to international standards;
- (ii) start up the system and the training of the local operators and hospital staff in using the system;
- (iii) plan, design, and set up a system for the safe recycling of used one-way syringes; and
- (iv) start up the system and the training of operators and hospital staff in the safe recycling of used syringes.

76. Expert on steam treatment plants (2 person-months, international). The expert will have a post-graduate degree in a health care related field, e.g., public health/medical technology, at least 10 years of experience in health care waste management at international level, at least 10 years of experience with medical waste steam based decontamination systems (e.g., autoclaves), and experience in standardization and validation of medical waste treatment technologies. The expert will:

- (i) provide technical assistance for the development of technical standards for decontamination systems,
- (ii) train staff of the responsible agency in the testing and validation of treatment systems like autoclaves, and

- (iii) provide input for the purchasing of necessary testing and monitoring equipment.

77. Biomedical engineer (2 person-months, national). The expert will have a post-graduate degree in biomedical engineering with at least 5 years of experience in hospital equipment. Experience with steam-based decontamination systems (e.g., autoclaves) and experience in standardization and validation would be an asset. Good written and spoken English is a must. The national expert will assist the international consultant in:

- (i) all aspects including translations,
- (ii) providing technical assistance for the development of technical standards for decontamination systems, and
- (iii) supporting the training of staff of the responsible agency in the testing and validation of treatment systems like autoclaves.

a. Hospital Hygiene and Infection Prevention and Control

78. Infection prevention and control (IPC) expert and team leader (11 person-months, international). The consultant should have a post-graduate degree in public health, epidemiology, or other relevant fields. S/he should have at least 10 years of experience in equipping of central sterilization service departments (CSSD) and microbiology laboratories, designing and implementing disease surveillance systems, and undertaking project studies. The consultant in close coordination with WHO consulting services and German Federal Ministry of Health experts and working group for IPC, will:

- (i) coordinate activities related to infrastructure and equipment upgrading of CSSDs and microbiology laboratories. This will include reviewing and updating minimum requirements for CSSD and microbiology laboratory equipment, monitoring the self-inventory of equipment based on the agreed minimum requirements, updating the procurement list, and coordinating with the architecture firm to provide input for renovations of CSSDs and microbiology laboratories;
- (ii) undertake an assessment and discussions to decide on a hospital-acquired infection (HAI) surveillance strategy (surveillance method and scope), prepare the tools and guidelines for the chosen strategy, pilot and evaluate the chosen strategy, develop guidelines at secondary and tertiary hospitals, monitor the implementation of the new system at selected sites, and consolidate the results for dissemination;
- (iii) conduct an assessment on the current arrangement in which the smaller health care facilities (private and public) are served by the CSSDs of the bigger hospitals nearby;
- (iv) prepare the revision and consolidation of technical guidelines;
- (v) coordinate and monitor training activities for IPC, this includes organizing the orientation workshops for the new technical guidelines, overseas training, and in-country training;
- (vi) coordinate the review, revision, and institutionalization of a IPC module for undergraduate training programs;
- (vii) supervise formative research on knowledge, attitude, and practice (KAP) of health care workers (for behavior change communication activities);
- (viii) supervise behavior change communication activities to ensure the relevance for the target audience, messages, and methods; and
- (ix) coordinate the revision of IPC indicators and inspection checklists, and organize orientation workshops for the updated checklist.

79. As a team leader s/he will serve to:

- (i) oversee the work executed by the team of consultants (international and national);
- (ii) coordinate the scheduling of consultants as well as the project baseline study;
- (iii) in coordination with the project implementation unit's (PIU) project manager, liaise with officials of the MOH, ADB, and other organizations involved in the focus areas (i.e., WHO, German Federal Ministry of Health, University Hospital of Essen, Global Fund to Fight Aids, Tuberculosis and Malaria, etc.);
- (iv) ensure the quality of the outputs of the team of consultants; and
- (v) assist the PIU in compiling all required reports to the MOH and ADB.

80. Consultant on Infection Prevention and Control and Deputy Team Leader (20 person-months, national). The consultant should have a post-graduate degree in public health, epidemiology, or other relevant fields. S/he should have at least 5 years of experience in equipping of CSSDs and microbiology laboratories, designing and implementing disease surveillance system, and undertaking project studies. The consultant, in close coordination with the international consultant, will assist in:

- (i) implementing activities related to infrastructure and equipment upgrading of CSSDs and microbiology laboratories. This will include reviewing and updating the minimum requirements for CSSD and microbiology laboratory equipment, monitoring the self-inventory of equipment based on the agreed minimum requirements to update the procurement list, and coordinating with the architecture firm to provide input for renovation of CSSDs and microbiology laboratories;
- (ii) assessment and discussions to decide on HAI surveillance strategy (surveillance method and scope), preparing the tools/guidelines for the chosen strategy, piloting and evaluating the chosen strategy, developing guidelines for level II and III hospitals, monitoring the implementation of the new systems at selected sites, and consolidating the results for dissemination;
- (iii) the preparation of revision and consolidation of technical guidelines;
- (iv) the coordination and monitoring of training activities for IPC, this includes organizing orientation workshops for the new technical guidelines, overseas training, and in-country training;
- (v) the review, revision, and institutionalization of the IPC module for undergraduate training programs;
- (vi) the supervision of formative research on KAP of health care workers (for behavior change communication activities);
- (vii) the supervision of behavior change communication activities to ensure the relevance of target audience, message, and method; and
- (viii) the revision of IPC indicators and inspection checklists, and organization of orientation workshops for the updated checklist.

81. As a deputy team leader/project coordinator s/he will serve to:

- (i) oversee the work executed by the national consultants;
- (ii) coordinate closely with the international team leader;
- (iii) in coordination with the PIU's project manager, liaise with officials of the MOH, ADB, and other organizations involved in the focus areas (i.e., WHO, German Federal Ministry of Health, University Hospital of Essen, Global Fund to Fight Aids, Tuberculosis and Malaria, etc.); and
- (iv) assist the PIU in compiling all required reports to the MOH and ADB.

82. Consultant on CSSD in-country training for surgical instruments and endoscopes reprocessing (2 person-months, international). The consultant should have a post-graduate degree in health care hygiene or other relevant fields. S/he should have at least 5 years of experience in conducting training for reprocessing of surgical instruments and endoscopes. The consultant will:

- (i) develop training materials for reprocessing of surgical instruments and endoscopes;
- (ii) conduct training on reprocessing of surgical instruments and endoscopes (centralized training workshop); and
- (iii) provide on-site support to clusters of hospitals, focusing on remote *aimags*. The on-site support will cover practical hands-on training for a complete work process in CSSDs—including washing of instruments, drying, inspection and maintenance of instruments, packing, and sterilizing/quality control and storage of sterile sets. Reprocessing of endoscopes will include disinfection, storage, and transportation of endoscopes.²⁷

83. Consultant on standard operating procedures and biosafety compliance for microbiology laboratories (2 person-months, international). The consultant should have a post-graduate in medical microbiology, biomedical technology, or laboratory related fields. He/she should have at least 10 years working experience in the management of microbiological laboratories. The consultant, in close coordination with the National Center for Communicable Diseases reference laboratory and working group, will:

- (i) discuss and agree on the scope for the assessment on compliance to biosafety standards for microbiology laboratories;
- (ii) prepare a checklist for assessing compliance to national biosafety standards;
- (iii) train the national consultant on assessing compliance to biosafety standards through assessment of five project hospitals. The result of the assessment shall include the finding and recommended rectification action(s) for each hospital;
- (iv) monitor/follow-up on the laboratories that are not able to comply with the standard during the first assessment;
- (v) review, update, or prepare the standard operating procedures for microbiological tests performed by secondary and tertiary level hospitals; and
- (vi) conduct orientation workshops for the updated standard operating procedures.

84. Consultant on CSSD in-country training for surgical instruments and endoscope reprocessing (3 person-months, national). The consultant should have a post-graduate degree in health care hygiene or other relevant fields. He/she should have at least 10 years of experience in working in reprocessing of surgical instruments and endoscopes. The consultant will work with the international consultant to:

- (i) support in the development of training materials for reprocessing of surgical instruments and endoscope;
- (ii) be involved in the training on reprocessing of surgical instruments and endoscopes (centralized training workshop);

²⁷ The proposed contribution from the German government would only cover the four tertiary hospitals in Ulaanbaatar; there are still many district hospitals and remote hospitals that need to be trained on-site. The on-site support training should only take place after the CSSD has been renovated and new equipment installed.

- (iii) be involved in the on-site support to clusters of hospitals, focusing on remote *aimags*. The on-site support will cover practical hand-on training for a complete work process in CSSDs—including washing of instruments, drying, inspection and maintenance of instruments, packing, and sterilizing/quality control and storage of sterile sets. Reprocessing of endoscopes will include disinfection, storage, and transportation of endoscopes;
- (iv) develop, implement, and report on a pilot of a centralized CSSD serving for smaller surrounding facilities; and
- (v) conduct activities related to infrastructure and equipment upgrading of CSSD and microbiology laboratories. This will include reviewing and updating the minimum requirements for CSSDs and microbiology laboratory equipment, monitoring the self-inventory of equipment based on the agreed minimum requirements to update the procurement list, and coordinating with the architecture to provide input for renovation of CSSD and microbiology laboratories.

85. Consultant on standard operating procedures for microbiology laboratories (3 person-months, national). The consultant should have a post-graduate degree in medical microbiology or laboratory science-related field. S/he should have at least 10 years working experience in microbiological laboratory. The consultant will:

- (i) be involved in the discussion and preparation of checklists for assessing compliance to the national biosafety standard;
- (ii) conduct the assessment on compliance to biosafety standards after working together with the international consultant for the assessment of five project hospitals;
- (iii) monitor and follow up with the laboratories that are not able to comply with the national biosafety standard during the first assessment;
- (iv) support the review, update, or preparation of the standard operating procedures or microbiological tests performed by level II and level III hospitals; and
- (v) be involved in the orientation workshops for the updated standard operating procedures.

2. Consultants' Qualification Selection

86. International accreditation firm for ISO 9001-2000 certification. The provided consultant from the firm should be a post-graduate accreditation expert with at least 5 years of proven working experience in accreditation of health care facilities. The consultant will:

- (i) monitor all procedures necessary for accreditation;
- (ii) review organization and management of the NCTM;
- (iii) review job descriptions of personnel, inventory of equipment, external services and supplies, process control, reports on adverse events, and document control procedures;
- (iv) review records management;
- (v) review the follow up of internal audits and management procedures; and
- (vi) compile in close cooperation with the senior management of the NCTM all necessary documents for international accreditation.

87. Architectural firm. The company should have experience in hospital design. Experience in the design of waste treatment facilities or comparable facilities will be an asset. A close cooperation between the medical waste expert, the IPC expert, and the architect is expected. The

architect company will be responsible for:

- (i) the planning, design, and supervision of the enlargement of the existing treatment facility to house the additional autoclave(s);
- (ii) the planning, design, and supervision of the renovation of the existing CSSDs and microbiology laboratories at the project hospitals;
- (iii) the planning, design, and supervision of the set up of three hazardous waste interim storage places, and recycling activities;
- (iv) the planning, design, and supervision of the setup of medical waste infrastructure in accordance with Order 179 in *aimag* hospitals; and
- (v) the provision of inputs for all project components in regard to civil works and infrastructure questions.

88. Medical waste expert company. The task of the expert company will be to carry out an independent technical and environmental assessment of the central waste management facility as baseline in 2013 and again in 2017.

3. Individual Consultant Services

89. Environmental expert (10 person-months, national). The specialist will have a minimum of a master's degree in environmental sciences or engineering, and have 10 years of experience in conducting project environmental assessments and management, preferably with working experience in projects of multilateral development banks implemented in Mongolia. The consultant will:

- (i) assess the project components' environmental readiness prior to implementation based on the readiness indicators defined in the environmental management plan (EMP);
- (ii) update the EMP including monitoring plan as necessary to revise or incorporate additional environmental mitigation and monitoring measures, budget, institutional arrangements, etc., that may be required based on the detailed design; submit to ADB for approval and disclosure; ensure compliance with the Government of Mongolia's environmental law and regulations, ADB's Safeguard Policy Statement (2009) and Public Communications Policy (2012), and the World Bank Group's Environmental, Health and Safety Guidelines;
- (iii) if required, prepare a new or supplementary initial environmental examination (IEE) report for changes in the project during detailed design (for example if there is a substantial change in alignment) that would result in adverse environmental impacts not within the scope of the approved IEE;
- (iv) support the MOH, the PIU, and tendering companies in preparing tender documents; ensure that the bidding documents and civil works contracts contain provisions requiring contractors to comply with the mitigation measures in the EMP and that relevant sections of the project EMP (or updated EMP, if prepared) are incorporated in the bidding and contract documents;
- (v) assist the MOH and the PIU to establish a grievance redress mechanism (GRM), and provide training for the PIU and GRM access points;
- (vi) Conduct regular EMP compliance monitoring in accordance with the monitoring plan defined in the EMP, review of internal monitoring reports, undertake site visits as required, identify any environment-related implementation issues, propose necessary corrective actions, and reflect these in a corrective action plan;

- (vii) assist the MOH and the PIU to prepare annual environmental monitoring and progress reports to ADB;
- (viii) provide training to the MOH, the PIU, implementing agencies, and contractors on environmental laws, regulations, and policies, Safeguard Policy Statement, EMP implementation, and GRM in accordance with the training plan defined in the EMP;
- (ix) assist the MOH and the PIU in conducting consultation meetings with relevant stakeholders as required, informing them of imminent construction works, updating them on the latest project development activities, GRM, etc.; and
- (x) consult and coordinate with specialists on medical waste, public health, blood safety, infection prevention and control, and poverty, gender, and social development in conducting the above activities and preparing relevant outputs.

90. Social poverty and gender specialist (10 person-months, national). The national consultant will have a post-graduate degree and at least 5 years of relevant experience in sociology or gender studies. Fluency in spoken and written English is required. Significant field experience in Mongolia and familiarity with gender issues of Mongolia is required. Training experience is required. Experience in survey design and analysis is helpful. The national consultant will work within the PIU. The consultant will work with the specific technical work streams to ensure that gender mainstreaming maintains a central position in the execution of tasks. Specifically, the consultant will:

- (i) conduct an initial review of the goals, outputs, activities, and indicators in the gender action plan (GAP) with the MOH and the PIU to confirm understanding and assigned responsibilities. Develop monitoring indicators and process for GAP implementation;
- (ii) prepare and conduct a workshop (content and methodology) on gender and social dimensions of safe blood transfusion, medical waste management, and infection prevention and control, for the MOH, the PIU, and key practitioners;
- (iii) conduct working sessions with component technical specialists, trainers, and KAP researchers, to develop demographic data variables (sex, job category, rural–urban) which must be collected during KAP, training, and capacity building activities;
- (iv) conduct working sessions with component technical specialists and information, education, and communication media entity to ensure that appropriate consultation and analysis is conducted prior to development of key messages and outreach mechanisms to ensure the campaign will be gender and culturally sensitive;
- (v) develop a guideline which describes the rationale and techniques for collecting demographic data in training, capacity building, and performance monitoring events; and which provides examples of analysis, conclusions, and actions to take using the results;
- (vi) hold regular consultations with the MOH gender focal point, the MOH Monitoring and Evaluation Department, and the MOH Human Resource Department to exchange information and action steps on relevant activities which have bearing on their programs (e.g., demographic disaggregated data, human resource policies, and relevant training events);
- (vii) assure that data for GAP indicators and performance targets are collected and reported on at critical reporting junctures (e.g., annual report, midterm review);
- (viii) provide assistance to adjust plans as necessary based on results at annual and mid-term reporting juncture;
- (ix) assist in the preparation of final reporting upon completion of the project; and
- (x) meet with key stakeholders in the MOH, the PIU, and ADB to brief them on progress related to the GAP.

91. Monitoring and evaluation specialist (6 person-months, national). The consultant will have a post-graduate degree in medicine, public health, or related fields, and will:

- (i) fine-tune the project performance management system and reporting system to the MOH and ADB;
- (ii) monitor and evaluate achievements during project implementation (baseline, midterm review, and project completion); and
- (iii) Prepare a data collection plan to ensure all baseline data and targets of the design and monitoring framework are available.

92. Legal expert (7 person-months, national). The expert will be a Mongolian practicing legal expert and will:

- (i) advise the project on legal matters pertaining to the reforms promoted under the project;
- (ii) draft relevant guidelines, regulations, orders, and laws as needed under the three components of the project; and
- (iii) assist in implementation, promulgation and assessments of orders, laws, and regulations.

4. Project Implementation Unit Staff

93. The PIU of the Fourth Health Sector Development Project will be expanded to incorporate the implementation of the Fifth Health Sector Development Project. To ensure smooth implementation of the project, a technical coordinator for safe blood transfusion, medical waste management and infection prevention and hygiene will be recruited for the PIU.

94. Technical coordinator (60 person-months, national). The national technical coordinator will have a post-graduate degree and at least 8 years of experience in at least one project focus area and some competence in the other two areas. S/He will have a Master's degree in public health or similar. He/she will report to the project manager and:

- (i) assist the project manager in ensuring the smooth implementation of the project;
- (ii) assist the project manager in coordinating the work executed by consultants (international and national);
- (iii) closely monitor the development and implementation of activities, including the EMP adaptation and implementation in the central medical facility and the new national transfusiology center
- (iv) coordinate the project level GRM;
- (v) assist the project manager in monitoring project progress in line with the requirements of the project design and monitoring framework;
- (vi) liaise with all officials, cofinanciers, and other stakeholders involved in the project in coordination with the project manager; and
- (vii) assist the PIU in compiling all required reports to the MOH and ADB (including the annual environmental report).

5. Technical Support Provided by the Project Cofinanciers

95. The consulting services which will be provided by WHO in-kind will include:

96. Expert on voluntary non-remunerated blood donation (6 person-months international). The

WHO consultant in close cooperation with the international implementation consultants and the local consultant on voluntary non-remunerated blood donation will assist to:

- (i) revise the training program;
- (ii) support the organization of workshops and blood collection camps;
- (iii) liaise with the Red Cross Society and other organizations involved in voluntary non-remunerated blood donation, develop in coordination with NCTM information, education, communication, and behavior change communication material for nationwide usage; and
- (iv) conduct adequate public consultation and design a gender and culturally sensitive information, education, and communication program.

97. Trainer on medical waste management (4 person months international). The WHO expert has experience in medical waste training and will provide training based on already developed training materials. The expert will:

- (i) provide training on basic medical waste management—using training materials previously jointly developed by the MOH and WHO, and
- (ii) provide training on advanced medical waste management—using training materials previously jointly developed by the MOH and the Millennium Challenge Account.

98. Expert on infection prevention and control (5 person months international). The WHO expert has experience in infection prevention and control, and will support the international implementation consultants to:

- (i) develop technical checklists and indicators for infections surveillance and control;
- (ii) review and revise technical guidelines; and
- (iii) train infection control practitioners.

99. The consulting services which will be provided by the German Federal Ministry of Health will include:

100. Hospital-acquired infection specialist/Hygienist (3 person-months, international). The expert will:

- (i) carry out a survey on infection prevention and control infrastructure in all project hospitals,
- (ii) provide technical support to the hospital-acquired infections working group set up by the MOH, and
- (iii) provide technical support on hospital-acquired infection surveillance methods.

101. Infection prevention and control/sterilization specialist (2 person-months, international). The expert will:

- (i) provide training on the operation of hospital sterilization (Ulaanbaatar only); and
- (ii) provide training on the management of central sterilization departments (Ulaanbaatar only).

VII. SAFEGUARDS

A. Environmental Management Plan

102. The additional financing is categorized C for environmental safeguards. The additional financing will support additional activities under component 3 of the previous project and will address hospital hygiene and infection prevention and control with regards to the present pandemic emergency through: (i) upgrading sterilization departments of hospitals nationwide; (ii) increasing the capacity of hospitals to diagnose and treat COVID-19 and SARI patients including intensive care and ambulance services; (iii) improving diagnostic capacity of COVID-19 and other viral infections; and (iv) establish a warehouse facility²⁸ to maintain and manage centralized stockpiles of medicines and medical equipment for emergency situations in Ulaanbaatar. The proposed activities will not have any environmental impacts, some impacts relating to the construction of the storage capacity are likely however, these will be minimal and will be within the boundary of an existing health facility in Ulaanbaatar. The likely impacts of this construction will be addressed through developing an EMP to address localized adverse impacts and risks during the construction phase which will include limited standard construction impacts, and risks related to unsafe collection, storage, treatment, disposal of medical and chemical liquid waste generated by health facilities is already addressed through the EMP for the previous project.

103. The sample EMP (Table 23) contained in the PAM will be updated by the contractor based on the final design of the proposed storage facility and will be submitted to ADB for review and approval prior to awarding the civil works contract. Contractors during construction, and facility operators as well as the MOH during operation, will implement these measures. The Government of Mongolia, through the MOH, is committed to manage identified environmental risks and agreed on a comprehensive set of loan covenants. The additional financing project will have significant environment, health, and safety benefits.

Table 23: Sample Environmental Management Plan (EMP) for Implementation by Contractor

Potential impacts and issues	Nature of impacts/Issues	Environmental Action /Prevention by Contractor
Design and pre-construction phase		
Facility design	Failure to comply with MON procedures, codes and administrative orders for hospital facility design	<ul style="list-style-type: none"> • Ensure compliance with relevant design standards for hospitals based on national requirements govt. administrative orders, circulars, and guidelines.
Environmental compliance	Failure to comply with national requirements	<ul style="list-style-type: none"> • Secure the environmental clearance certificate from concerned environmental regulatory body as needed in coordination with the concerned hospitals.
Permits	Failure to secure necessary permits and clearances prior to construction	<ul style="list-style-type: none"> • List all permits required for additional construction works such as: • Building Permit, Sanitary Permit, Electrical Permit, and other clearances from the local government prior to start of construction works • Secure the Fire Safety Evaluation Clearance from the city/municipal Fire Marshal if required
Construction phase		

²⁸ Building plinth area not exceeding 1,000 square meters.

Potential impacts and issues	Nature of impacts/Issues	Environmental Action /Prevention by Contractor
Environmental and Social Issues	Complaints, Concerns	<ul style="list-style-type: none"> Establish and disseminate effective grievance redress mechanism (GRM) Share contractor contact details with local authority leaders and hospital staff
EHS capacity	Inadequate EHS management capacity	<ul style="list-style-type: none"> Assign qualified EHS staff at each construction site to supervise and monitor EMP implementation and report to PIU
Monitoring and Reporting	Failure to comply with national department of health requirements; Failure to adequately implement the EMP	<ul style="list-style-type: none"> Submit progress reports/status of construction and EMP implementation every month to the PIU on behalf of the concerned hospitals
Water and soil pollution	Leakage of spills of fuel and lubricants that may contaminate soil, surface water and groundwater	<ul style="list-style-type: none"> Prevent pollution of soil, surface water/ groundwater by ensuring the following: Location of storage facilities for fuel/oil/cement/ chemicals are located 200m away from the river, stream and waterways Soil surfaces shall be made impermeable and provided with bunds Vehicles/heavy equipment maintenance and re-fuelling area will prevent spillage of fuel, oil and hazardous materials to seep into soil Oil traps shall be provided in the maintenance and service areas; Fuel storage and refilling areas located > 50 m from water sources and protected by temporary bunds to contain spills.
Air quality	Concentration of machinery working in one area plus haulage vehicle traffic may result in local areas of poor air quality	<ul style="list-style-type: none"> Equipment will be maintained to a high standard to ensure efficient running and fuel-burning. High-horsepower equipment will be provided with tail gas purifiers. All vehicle emissions will be in compliance with relevant emission standards for MON
Dust	Caused by earthmoving and construction haulage traffic can cause poor air quality and nuisance to householders and farmers.	<ul style="list-style-type: none"> Material stockpiles and concrete mixing equipment will be equipped with dust shrouds Regular water spraying when dust observed on construction sites, construction roads, and stockpiled material Maintenance of driving surfaces will be standard site management practice Vehicles carrying soil, sand, or other fine materials to and from the construction sites will be covered
Noise impacts on sensitive receptor	Noise caused by the concentration of machinery working in one area, plus haulage vehicles, can cause a range of impacts from nuisance to health problems. Noise could disrupt ongoing medical services.	<ul style="list-style-type: none"> Construction after 9pm shall be strictly prohibited. During daytime construction, the contractor will ensure that temporary anti-noise barriers will be installed to shield sensitive receptors.

Potential impacts and issues	Nature of impacts/Issues	Environmental Action /Prevention by Contractor
Water Quality	Pollution of local water courses through sediment (If relevant to the site)	<ul style="list-style-type: none"> • Construction site drainage will ensure any rainfall will be diverted to a holding pond or suitable land to prevent localised flooding and sedimentation of surface water • In stream works will take place in dry season
Construction waste and spoil	Unauthorized or careless storage and disposal of waste can damage property, vegetation, agricultural land, and block natural drainage.	<ul style="list-style-type: none"> • Temporary storage of spoil waste shall be located away from the rivers, streams and waterway (as applicable) • Construction waste will be stored securely to prevent escape in containers • Final disposal site of waste and spoil will be in a site approved by the district and provincial authorities.
Waste from workers	The construction workforce will generate domestic wastewater & garbage (food wastes, paper, and other solid waste including food-laden wash water) which causes impacts if poorly disposed	<ul style="list-style-type: none"> • Provide sufficient waste bins at strategic locations and ensure that they are • Protected from birds and vermin • Emptied regularly to prevent overflow • Disposed of in local disposal site as approved by local authorities
Erosion impacts	Facility construction may require earthworks which will leave surfaces liable to erosion, especially in heavy rain periods (as relevant).	<p>Erosion control includes:</p> <ul style="list-style-type: none"> • Limiting construction and material handling during periods of rains and high winds • Stabilizing all cut slopes, embankments and other erosion-prone working areas while works are going on • All earthwork disturbance areas shall be stabilized within 30 days after earthworks have been completed.
Community health and safety	Construction work poses safety hazards and threats to nearby residents and passers-by, including staff, patients and guests of adjacent hospitals. Excavations, loss of access and movements of large machinery and vehicles all potentially impact on existing utilities, community safety and day-to-day operation of existing/adjacent hospitals.	<p>Community health and safety will be safeguarded by:</p> <ul style="list-style-type: none"> • Planning construction activities so as to minimize disturbances to residents, passers-by, and utilities • Temporary land occupation will be planned well ahead of construction to minimize its impact and after consultation with the affected community • Land reinstated to its original condition after construction. • Implementing safety measures around the construction sites to protect the public, including warning signs to alert the public to potential safety hazards, barriers to prevent public access to construction sites, and a watch person, where necessary.
Road safety (through movement of vehicle and equipment for construction)	Increased motorised vehicle movement including heavy goods vehicles to and from the site during construction may increase road safety risks for local residents and passers-by.	<ul style="list-style-type: none"> • Ensure that drivers of all vehicles strictly follow road rules and maintain good road safety standards • Deliveries of construction materials to the site by heavy good vehicles will be properly supervised by use of traffic marshals
Occupational health and Safety	Workers are subject to safety hazards while operating and/or moving around machinery, as well as dust and noise impacts from extended exposures at the work site.	<ul style="list-style-type: none"> • Contractors shall ensure that: • All reasonable steps are taken to protect any person on the site from health and safety risks • Construction sites are safe and healthy workplaces • Only certified and tested machineries and equipment is used

Potential impacts and issues	Nature of impacts/Issues	Environmental Action /Prevention by Contractor
		<ul style="list-style-type: none"> • Adequate training or instruction for occupational health and safety is provided • Adequate supervision of safe work systems is implemented • Means of access to and exit from the site are without risk to health and safety • A first aid kit will be available on each construction site • All member of staff is responsible for first aid and is aware of local health care facilities
Human health and environmental pollution – Site Hand Over	Hazardous waste materials, unprotected latrines and organic waste remaining after construction will pose a risk to human health and safety.	<ul style="list-style-type: none"> • All unused or discarded construction materials will be removed from the site before hand-over • Surroundings will be landscaped to reinstate original site conditions • All temporary dwellings, cook houses and latrines will be removed upon completion of the construction and the site cleaned.
Construction completion	Facility does not conform to approved plans and specifications; Improper site clean-up and restoration	<ul style="list-style-type: none"> • Secure a Fire Safety Inspection Certificate from the city/municipal Fire Marshal • Secure an Occupancy Permit from the local government • Ensure proper restoration of disturbed areas and clean-up of site.

B. Involuntary Resettlement and Indigenous Peoples

104. **linvoluntary resettlement and indigenous peoples.** The Additional Financing is Category C for involuntary resettlement and Indigenous Peoples safeguards. Similar to the current project, project activities will not involve land acquisition and any civil work will likely be confined in project facilities' existing lands or on government owned lands. The proposed site for the new drug storage is known to be government-owned land. In the event that any resettlement impacts are unavoidable for any Project activities, the Borrower shall inform ADB, prepare a resettlement plan/s for such activities in accordance with the SPS, and carry out any such land acquisition and resettlement activities in accordance with the SPS and approved resettlement plan. All ethnic groups will have equal opportunities to avail and access benefits from the project, if and when they will require health and medical attention. The project will implement effective ways to design and deliver information, education, and communication activities to the public to ensure social inclusiveness and effective communication. Dissemination of COVID-19 messages within communities will be conducted in both Mongolian language as well as in local languages.

VIII. GENDER AND SOCIAL DIMENSIONS

A. Poverty and Social Issues

105. A social, poverty, and gender analysis was undertaken in accordance with the Asian Development Bank's (ADB) policies on Gender and Development in ADB Operations (Operations Manual Section C2) and Incorporation of Social Dimensions into ADB Operations (Operations Manual Section C3). The analysis collected information to assist in the design and implementation measures of the project.

106. The project will improve patients' and health workers' safety in hospitals in Mongolia. The component on improving the safety of blood transfusions will be applied nationwide reaching a large proportion of the total Mongolian population. The components on improving medical waste management and prevention and control of hospital-acquired infections will be conducted in nine *aimags* and three urban centers (Ulaanbaatar, Darkhan, Erdenet) reaching approximately 1,850,000 beneficiaries. About 13,500 health workers (82% women) will also benefit directly, especially those with professions that put them at occupational risk due to insufficient and unsecure blood products and processes. A safe and secure blood supply for all patients will contribute to improving treatment and recovery practices and minimize the risks related to insufficient and unsecure blood products. This is particularly important for women patients (80% of facility patients) who come into contact with blood products during routine procedures such as childbirth. Assuring compliance to international infection prevention and control and waste management standards in health care facilities will contribute to the overall improvement in both the safety of the country's health services and indirectly the health status of the population. Improvements in the quality of health care will restore the population's trust in the system, which has eroded significantly, as people resort to expensive (but not necessarily better) private care, self-diagnosis and medication, traditional remedies, and plain neglect. The project will provide gender and culturally sensitive information, education, and communication on voluntary blood safety for the public to help address the deficit in blood donations and fears of infections from the procedures. Greater trust results in more use of services and better health, which is closely linked to an improved standard of living overall. Core labor standards will be used in the construction activities and monitored in the project performance management system.

107. **Gender categorization and plan.** The original project is designed to be "effective gender mainstreaming." Women make up 82% of the health care workforce, but this is predominantly in the mid- to lower-tier positions. Women are commonly responsible for blood processing, infection prevention and control, waste management and handling, cleaning, and disinfection; and are most exposed to hospital-acquired infections and transfusion-transmitted infections. Women also constitute the majority of health facility users and come into contact with blood products during routine procedures (i.e., childbirth). A Gender Action Plan (GAP) has been developed for the project and updated to accommodate the additional financing scope, which is also categorized as "effective gender mainstreaming." Following the GAP, women health workers at all levels have participated in institutional processes to improve blood product and processing practices, upgrade infection prevention and control standards and application, and ensure improved conditions for medical waste management. The plan ensures the collection of sex-disaggregated data for planning and decision support; gender sensitivity for information, education, and communication campaigns; participation in training events; promotion of career development; and attention to training that addresses high-risk groups. Given the scope of emergency assistance to respond COVID-19, one gender-related target has been added in the DMF and GAP under the project component 3 on hospital hygiene and infection prevention and control.

108. MOH has ensured the timely implementation of the GAP. The agencies responsible and the resources needed to implement the GAP are detailed in the updated GAP below. Gender-related targets are also specified in the DMF (Section IX.A). A national social, poverty, and gender consultant has been hired under the project to assist the executing agency in implementing the GAP. Up to date, of total 12 GAP activities, 11 activities are well on track (92%), while 1 is partly on track. Out of 16 indicators 10 have gender-related targets, of which 9 are on track (90%) and 1 is partly on track.

109. **Stakeholder consultation and participation plan.** The plan includes (i) continuation of the Fourth Health Sector Development Project patient satisfaction surveys; (ii) a blood donor knowledge, attitude, and practice survey and subsequent information, education, and communication campaigns; and (iii) social inclusion sensitization actions among health workers (as part of regular training). The tools that will be used for the knowledge, attitude, and practice survey include a representative survey and follow-up focus group discussions, followed by the design of key messages segmented by target groups.

110. **A communication and media strategy plan** developed with the Ministry of Health will outline the key messages, communication channels, products, and timeline for the blood donation campaign. A subproject in support of the Ministry of Health will be developed to ensure the delivery of the overall campaign.

GENDER ACTION PLAN

GENDER ACTION PLAN

Outputs	Gender Action Plan Objectives	Activities	Indicators/Targets	Responsible Party	Budget
Component 1: Safe Blood Transfusion – Unchanged under Additional Financing					
Output 1. The new NTC is established in UB and internationally accredited	Voluntary Non-Remunerated Blood Donation (VNRBD) KAP survey includes gender and social analysis. Provides recommendation for addressing social & gender dimensions in IEC outreach including gender and socially sensitive information and outreach mechanisms	1. Ensure that Voluntary Non-Remunerated Blood Donation KAP survey design and analysis identifies gender/social factors, which influence attitudes and practices on blood donation.	1. Number of sex and social disaggregation filters in the survey data analysis program 2. List of current attitudes and practices on blood donation filtered by sex and social factors 3. Survey results to inform IEC targeting designs and outreach methodologies for different blood donors (men/ women, rural/urban etc.)	Social research company (KAP survey) Marketing company (IEC campaign)	Salary of PGC: 10 months
		2. Design and conduct Nationwide IEC campaign on VNRBD designed & implemented based on the analysis of different incentives for blood transfusion held by various socio-economic groups (men/women, rural/urban etc.) includes key messages and appropriate outreach methodologies to promote gender sensitive blood donation practices	4. Nationwide multimedia IEC campaign is designed and conducted twice over life of the project. 5. Voluntary blood donations Increase from 0.8% of the population to at least 1.2% (sex disaggregated – baseline Provided in year 1).	PGC National Transfusiology Center	
		3. IEC report on kinds of outreach methods & particular messages addressing gender dimensions of blood donation (i.e., small FGDs/peer educators focus on childbirth risks, addressing any concern on transmission of illness)	6. Number and kind of gender focused recommendation included in the IEC program		
		Output 2 Aimag general	Improved capacity of health workers	4. Ensure sex/job category data is collected during training; and pre-	7. Number of trained health workers (sex/job disaggregated baseline and target for women created in year 1

hospitals (AGH) and selected center transfuse safe blood.	for safe blood transfusion	& post-training tests are conducted for evaluation	8. % of trained health workers reflecting increased knowledge (sex/job disaggregated)	MOH human resources	
		5. Assure that participation in training events, working groups, study tours ensure gender equity in career development in line with MOH career pathways.	9. At least 60% of participants of trainings, study tours and working groups are women	Project training units	
		6. Ensure training programs on blood safety, address high risk groups and their special needs	10. 100% of health workers in maternity, <i>trauma & surgical</i> units are trained on blood safety (82% are women)		
Component 2: Medical Waste Management – Unchanged under Additional Financing					
Output 4 The national MWM system is strengthened and the project hospitals meet the requirements of national standards	Nonmedical workers benefit from training OS available to all health workers (82% women staff)	7. Implement training for non-medical workers who come into contact with medical waste.	11. Number of training activities, <i>and number</i> of staff trained (sex-disaggregated target for women established during year 1)	Project training units	Included in the project budget
		8. Ensure the implementation of the MOH program on MWM	12. 100% of the capacity building, and IEC activities on MWM implemented	Project monitoring and evaluation unit/PGC	
Component 3: Hospital Hygiene and Infection Prevention and Control					
Output 7 An effective surveillance system for HAI is operational	HAIs and Gender dimensions better addressed	9. Active surveillance for HAIs of tracer conditions is pilot tested and introduced in selected tertiary & secondary hospitals by 2018 (risk factors are sex and location disaggregated in the facility)	13. 7 tertiary and 14 secondary hospitals introduced and pilot tested active surveillance system for HAIs of tracer conditions	MOH reports	Included in the project budget
Output 8 Awareness, knowledge, & capacity of health authorities, health care workers, & administrative	Enhanced decision support to ensure effective coverage of IPC for health care workers	10. Ensure that KAP survey on IPC identifies high risk groups and their special needs	14. KAP on IPC are increased from 2015 (baseline) & 2017 (follow-up survey)	PIU PGC	Included in the project budget
		11. Ensure training programs on IPC address high risk groups and their special needs	15. Number of IPC training beneficiaries (sex-disaggregated at least 80% women)		

staff on IPC have substantially improved					
Output 9 IPC is ensured by strengthening the QMS in hospitals developing the capacity of GASI	Improved IPC monitoring	12. Ensure that supervision tools which monitor compliance and performance have sex/job data variables as appropriate.	16. Use of sex and job category data on compliance with protective gear guidelines to correct staff behavior	Project training and planning reports	No cost
Output 10 (New under Additional Financing) Diagnostic and treatment capacity of hospitals to manage COVID-19 and SARI patients increased	Improved capacity of health workers on diagnosis and treatment of patients with COVID-19 and SARI	13. Train doctors and nurses on guidelines of diagnosis and treatment of patients with COVID-19 and SARI by 2022	17. Women comprise at least 80% of trainee doctors and nurses on guidelines of diagnosis and treatment of patients with COVID 19 and SARI (2020 baseline: 0)	MOH reports	Included in the project budget

GASI = General Agency for Specialized Inspection; HAI = hospital-acquired infection; IEC = information, education, and communication; IPC = infection prevention and control; KAP = knowledge, attitude, and practice; MOH = Ministry of Health; OS = occupational safety; PGC = project gender consultant; PIU = project implementation unit; SARI = severe acute respiratory infections.

IX. PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION

REVISED DESIGN AND MONITORING FRAMEWORK

Impact the Project is Aligned with			
<p>Current project Improved quality of health services in Mongolia^a</p> <p>Overall project Unchanged</p>			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
<p>Outcome</p> <p>Current project Improved patient and health worker safety in project-supported hospitals in Mongolia^b</p> <p>Overall project Unchanged.</p>	<p>Current project</p> <p>a. At least 95% of blood collected for transfusions in 27 blood banks is screened with polymerase chain reaction, ELISA, or rapid test methods by 2018 from estimated 70% tested by ELISA and rapid test methods in 2010</p> <p>b. The number of hospitals complying with national standards for hazardous solid and liquid medical waste treatment in 5 tertiary and 16 secondary project-supported hospitals increases from 5 in 2012 to 19 in 2018 for solid hazardous medical waste</p> <p>c. By 2018, at least 90% of health care workers (82% women) in project-supported hospitals are vaccinated against hepatitis B (2011 baseline: 10%, sex, job tier, urban, and rural disaggregated)</p> <p>Overall project</p> <p>a. b, c Unchanged (completed)</p> <p>d. 100% of suspected domestic COVID-19 cases reported and investigated per national guidelines, with sex- and age-disaggregated data (March 2020 baseline: 0%) (added)</p>	<p>MOH and external audit report</p> <p>MOH and external audit report (GASI)</p> <p>MOH statistics</p> <p>MOH report</p>	<p>Assumption Sustained political will for hospital reforms</p> <p>Risks Lack of incentives for hospitals to comply with regulation on medical waste and IPC</p> <p>Lack of external monitoring and supervision for medical waste and IPC</p>
Outputs			
Component 1: Safe Blood Transfusion			
<p>Output 1</p> <p>Current project: The new National Center for Transfusion Medicine is established in Ulaanbaatar and internationally accredited</p>	<p>Current project</p> <p>1a. Hospitals in Ulaanbaatar are provided with safe blood by the new national transfusiology center by 2017</p> <p>1b. International accreditation of the National Transfusiology Center is acquired by 2018</p>	<p>MOH report</p> <p>Official accreditation body</p> <p>MOH report</p>	<p>Risk</p> <p>The government is late or short of funds to build the new national Center for transfusion Medicine, assign the required personnel, and allocate sufficient operational funds for</p>

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
<p>Overall project Unchanged</p> <p>Output 2</p> <p>Current project <i>Aimag</i> (province) general hospitals and <i>soum</i> (administrative subdivision of the <i>aimag</i>) health centers transfuse safe blood</p> <p>Overall project Unchanged</p>	<p>1c. Model maintenance unit at the National Transfusiology Center is operational by 2016</p> <p>Overall project 1a. 1b. 1c. Unchanged (completed)</p> <p>Current project</p> <p>2a. 100% of donors are tested for transfusion-transmitted infections by 2016 (i.e., syphilis, HIV, hepatitis B, and hepatitis C)</p> <p>2b. Proportion of voluntary blood donors is increased from 0.8% of the total population in 2011 to 1.2% by 2017 (sex-disaggregated)</p> <p>2c. 100% of health workers in maternity and trauma units are trained on blood safety according to national standards</p> <p>Overall project 2a. 2b. 2c. Unchanged (completed)</p>	<p>Reports of the National Center for Transfusion medicine</p> <p>Reports of the National Center for Transfusion medicine</p> <p>MOH training records</p>	<p>the proper functioning of the new center</p> <p>Risk Lack of recurrent funding jeopardizes sustainability of the implementation of blood safety measures in the longer run</p>
<p>Component 2: Medical Waste Management</p> <p>Output 3</p> <p>Current project Cancelled^c</p> <p>Output 4</p> <p>Current project The national medical waste management system is strengthened, and the project hospitals meet the requirements of national standards</p> <p>Overall project Unchanged</p>	<p>Current project 3a. Canceled</p> <p>Current project</p> <p>4a. The number of hospitals complying with national standards for medical waste management in the 5 tertiary and 16 secondary project-supported hospitals increases from 5 in 2012 to 19 in 2017</p> <p>4b. 100% of recommended actions of MOH human resources development policy on occupational safety are implemented</p> <p>Overall project 4a. 4b. Unchanged (completed)</p>	<p>MOH and GASI reports</p> <p>Project monitoring reports</p>	<p>Risk Lack of recurrent funding jeopardizes sustainability of medical waste management practices in the longer run</p>
<p>Component 3: Hospital Hygiene and Infection Prevention and Control</p> <p>Output 5</p> <p>Current project Microbiology laboratory capacity of project-supported hospitals meets national requirements</p> <p>Overall project</p>	<p>Current project</p> <p>5a. Five tertiary and 16 secondary hospitals follow updated standard operating procedures for antimicrobial susceptibility testing by 2017</p> <p>5b. Microbiology laboratories provide information on hospital-acquired infection microbes and their susceptibility patterns in 5 tertiary and 16 secondary hospitals by 2017</p> <p>Overall project</p>	<p>MOH reports</p> <p>MOH reports</p>	<p>Risk MOH neglects funding for maintenance and replacement of equipment in the long term</p>

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
<p>Unchanged</p> <p>Output 6</p> <p>Current project Basic infrastructure and equipment for ensuring IPC in the project-supported hospitals are available</p> <p>Overall project Unchanged</p> <p>Output 7</p> <p>Current project An effective surveillance system for hospital-acquired infections is operational.</p> <p>Overall project Unchanged</p> <p>Output 8</p> <p>Current project Awareness, knowledge, and capacity of health authorities, health care workers, and administrative staff on IPC have substantially improved</p> <p>Overall project Unchanged</p> <p>Output 9</p> <p>Current project IPC is ensured by strengthening the quality management system in hospitals</p>	<p>5a. 5b. Unchanged (completed)</p> <p>Current project 6a. Sterilization services of 5 tertiary hospitals and 16 secondary hospitals are upgraded by 2017 6b. Five tertiary hospitals and 16 secondary hospitals allocate adequate funding to cover recurrent costs to ensure IPC can be implemented in accordance with national guidelines by 2017</p> <p>Overall project 6a. Sterilization services of 34 tertiary and secondary hospitals are upgraded by 2022 (2019 baseline: 19) 6b. 34 tertiary and secondary hospitals allocate adequate funding to cover recurrent costs to ensure IPC can be implemented in accordance with national guidelines by 2022 (2019 baseline: 19)</p> <p>Current project 7a. Active surveillance for hospital-acquired infections of tracer conditions is pilot tested and introduced in 5 tertiary hospitals and 16 secondary hospitals by 2017 (risk factors are sex and location disaggregated in the facility)</p> <p>Overall project 7a. Unchanged (completed)</p> <p>Current project: 8a. Awareness, knowledge, and skills on IPC are increased from 2013 (baseline) and 2017 (follow-up survey) 8b. Results from disaggregated data are used to improve targeting in training, performance monitoring, and planning decisions</p> <p>Overall project 8a. 8 b. Unchanged (ongoing)</p> <p>Current project 9a. IPC is part of the continuous quality management system of hospitals by 2017 9b. GASI has adopted an improved supervision module for IPC by 2017</p>	<p>Project survey of infrastructure and equipment</p> <p>Actual MOH budget matches cost projections</p> <p>MOH reports</p> <p>Knowledge, attitude, and practice surveys (baseline in 2013; follow-up in 2017)</p> <p>Project training and planning reports</p> <p>MOH report</p> <p>Order issued by GASI</p>	<p>Risks Shortfall of budget for hospitals for IPC does not allow putting knowledge into practice</p> <p>Lack of leadership in hospitals for IPC</p>

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
<p>and developing the capacity of GASI</p> <p>Overall project Unchanged</p> <p>Output 10</p> <p>Current Project None</p> <p>Overall project Diagnostic and treatment capacity of hospitals to manage COVID-19 and SARI patients increased</p> <p>Output 11</p> <p>Current Project None</p> <p>Overall project National stockpiles for medical countermeasures established</p>	<p>9c. Use of sex and job category data on compliance with protective gear guidelines to correct staff behavior</p> <p>Overall project 9a. 9b. 9c. Unchanged (completed)</p> <p>Current Project None</p> <p>Overall project 10a. 210 referral hospitals equipped to meet national standards to manage COVID-19 and SARI patients by 2022, including by providing intensive care and ambulance services (2019 baseline: 32)</p> <p>10b. Women comprise at least 80% of doctors and nurses trained and report increased understanding of the guidelines of diagnosis and treatment of patients with COVID-19 and SARI (2019 baseline: 0)</p> <p>Current Project None</p> <p>Overall project 11a. National stockpiles of medicine and medical supplies to ensure preparedness for emergency situations created in Ulaanbaatar by 2022 (2019 baseline: not applicable)</p>	<p>Project training and planning reports</p> <p>10a–b. MOH annual report</p> <p>11a. MOH annual reporting</p>	
<p>Key Activities with Milestones</p> <ol style="list-style-type: none"> 1. The new national center for transfusion medicine is established in Ulaanbaatar and internationally accredited (unchanged) (completed) 2. Aimag general hospitals and soum health centers transfuse safe blood (unchanged) (completed) 3. The central medical waste management facility is expanded and meets international standards (canceled) 4. The national medical waste management system is strengthened, and the project hospitals meet the requirements of national standards (unchanged) (completed) 4. Microbiology laboratory capacity of project-supported hospitals meets national requirements (unchanged) (completed) 5. Basic infrastructure and equipment for ensuring IPC in the project-supported hospitals are available(unchanged) (completed) 6. An effective surveillance system for hospital-acquired infections is operational (unchanged) (Completed) 7. Awareness, knowledge, and capacity of health authorities, health care workers, and administrative staff on IPC have substantially improved (unchanged)(completed) 8. IPC is ensured by strengthening the quality management system in hospitals and developing the capacity of GASI (unchanged)(completed) 9. Diagnostic and treatment capacity of hospitals to manage COVID-19 patients increased (added) <ol style="list-style-type: none"> 9.1 Equip intensive care units in project hospitals with essential equipment required for managing COVID-19 and SARI patients, including by providing intensive care and ambulance services (2020–2022) (added) 9.2 Improve staff capacity and guidelines in diagnostic and treatment of patients with COVID-19 and SARI (2020–2022) (added) 			

Key Activities with Milestones					
10 National stockpiles for medical countermeasures established (added)					
10.1 Establish the national stockpile of medicines and medical devices for emergency situations at the NCZD (2020–2022) (added)					
10.2 Develop the capacity of NCZD to manage the national stockpiles (2020–2022) (added)					
Project Management Activities					
Complete	design	activities	by	May	2020
Submit semiannual monitoring reports every July and January					
Inputs					
ADB					
Loan					
\$30 million (current)					
\$30 million (additional)					
\$60 million (overall)					
Cofinancier					
Grant					
\$0.67 million (current)					
\$0.0 million (additional)					
\$0.67 million (overall)					
Government					
\$7.71 million (current)					
\$4.43 million (additional)					
\$12.14 million (overall)					
Assumptions for Partner Financing					
Current project					
WHO cofinances \$420,000 for consulting services, \$20,000 for training, and \$40,000 for equipment					
Overall project					
Unchanged					

ELISA = enzyme-linked immunosorbent assay, GAS1 = General Agency for Specialized Inspection, IPC = infection prevention and control, MOH = Ministry of Health, WHO = World Health Organization.

^a Current project refers to the original project (L2963).

^b Government of Mongolia. 2016. *The State Policy on Health, 2017–2026*. Ulaanbaatar.

^c Overall project refers to the original project (L2963) and the proposed additional financing.

^d Interventions in safe blood transfusion will have a nationwide impact, as all 26 blood banks in Mongolia will be supported (i.e., National Center for Transfusion Medicine in Ulaanbaatar, 21 *aimags'* general hospitals, 1 district hospital of Ulaanbaatar, and 3 *soums*). Measures to strengthen medical waste management will be implemented in 4 tertiary hospitals in Ulaanbaatar City, 9 *aimags'* general hospitals (Bulgan, Darkhan-Uul, Dornogovi, Orkhon, Khentii, Khovd, Selenge, Umnugovi, and Uvs), and 8 district hospitals in Ulaanbaatar. Measures to strengthen infection prevention and control will have a nationwide impact involving all 21 *aimags'* general hospitals, 7 district hospitals in Ulaanbaatar and 7 tertiary level hospitals. The MOH selected the project *aimags'* for implementation of the medical waste management to ensure fair geographical distribution across Mongolia and selected the hospitals generating most medical waste.

^f At the request of the Borrower, ADB approved a minor change in scope on 12 April 2018 and cancelled Output 3 under Component 2 and reallocated the funds to upgrade the upgrade sterilization departments in additional eight hospitals. Source: Asian Development Bank.

A. Monitoring

111. **Project performance monitoring.** MOH will establish a comprehensive project performance monitoring system acceptable to ADB. The system will assess performance by (i) evaluating delivery of planned activities; (ii) measuring project impacts; (iii) measuring health, social, and economic benefits with a focus on the poor, women, and disadvantaged groups; and

(iv) monitoring achievement of Millennium Development Goals and other government targets. Indicators will serve as a basis to prepare reports on project implementation and the reform process, improved use of resources, improved access to services (particularly for the poor), improved service quality, client satisfaction, and progress in achieving Millennium Development Goals. Performance indicators are set out in the design and monitoring framework (above). Some indicators will be monitored through surveys financed under the project, while others will be monitored through routine administrative. Where feasible, indicators will be disaggregated by sex, job tier, and urban–rural.

112. Disaggregated baseline data for output and outcome indicators gathered during project processing will be updated and reported quarterly by the project implementation unit's (PIU) quarterly progress reports (on behalf of the executing agency) and during each ADB review mission. These quarterly reports will provide information necessary to update ADB's project performance management system.

113. **Compliance monitoring.** The compliance status of grant covenants will be reported and assessed through the quarterly progress reports and verified by ADB review missions.

114. **Safeguards monitoring.** As a Category C project relative to environment, involuntary settlement and indigenous peoples safeguards, the project will have no negative impacts. Minor impacts are likely due to the small civil works, however, external monitoring by a consultant will not be required. The contractor will be required to hire an environment/safety engineer who will monitor the implementation of the EMP. A sample EMP is attached. of the EMP will not be required. The environmental performance of the project will be verified by the environment/safety engineer, who will monitor compliance with the EMP, and include a section in the monthly report to the Project Implementation Unit (PIU).

115. **Monitoring of civil works.** The project will organize independent monitoring of civil works similar to external monitoring organized under the Third Health Sector Development Project. Core labor standards will be used in the construction activities and monitored in the project performance management system.

116. **Gender action plan.** The PIU assisted by the national social poverty and gender specialist will monitor and report annually on the indicators included in the gender action plan to the MOH and ADB, and will be monitored during ADB review missions. Gender indicators will be included in the project performance management system.

B. Evaluation

117. ADB and the government will jointly undertake reviews of the project at least once a year. The reviews will assess progress in each component, identify issues and constraints, and determine necessary remedial actions and adjustments. A midterm review will be conducted during the third year of implementation. The midterm review will (i) review the scope, design, and implementation arrangements and identify adjustments required; (ii) assess the progress of project implementation against performance indicators; and (iii) recommend changes in the design or implementation arrangements, if necessary. Within 6 months of physical completion of the project, the MOH will submit a project completion report to ADB.

C. Reporting

118. The MOH will provide ADB with (i) quarterly progress reports in a format consistent with

ADB's 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 and contracts award and disbursement projections, (e) report on the implementation of the environmental management plan, and (f) status of implementation of WHO and the government's contributions; and (iii) a project completion report within 6 months of physical completion of the project. To ensure projects continue to be both viable and sustainable, project accounts and the executing agency annual financial statements, together with the associated auditor's report, should be adequately reviewed.

119. In addition, the MOH will submit to ADB annual environmental monitoring and EMP progress reports. The reports will include (i) progress made in EMP implementation, (ii) overall effectiveness of EMP implementation, (iii) environmental monitoring, (iv) institutional strengthening and training, (v) public consultation (including grievance redress mechanism), and (vi) any problems encountered during construction and operation, and the relevant corrective actions undertaken. The report will also report on project's associated facilities. The environment consultant will help the MOH and the PIU to prepare the annual report. The annual environment monitoring and EMP progress report will be disclosed on ADB's project website.

D. Stakeholder Communication Strategy

120. The project preparation activities were guided by participatory processes undertaken in Bayan-Ulgii, Erdenet, Nalaikh, Tuv, and Ulaanbaatar in health facilities and community. Focus group and stakeholder discussions were held and indicated a range of health, social, and organizational concerns in the community and the health services, including the needs for (i) improved access to safe blood transfusion services; (ii) improved medical waste management; and (iii) improved hospital hygiene and infection prevention and control. Patient satisfaction surveys as introduced by the Third Health Sector Development Project will be continued, an information, education, and communication campaign on voluntary non-remunerated blood donations will be implemented to strengthen the donor base for blood banks, and measures will be undertaken to enhance the role and status of health workers involved in infection prevention and control. and medical waste management. Information, education, and communication materials will be conducted in a gender and culturally sensitive manner to ensure social inclusiveness and effective communication. Public disclosure of all project documents will be made available through the development of a project website.

121. Public disclosure of all project documents will be undertaken through the MOH and the PIU on the MOH and ADB websites including the project information document, design and monitoring framework, initial environmental examination, and the report and recommendation of the President. Disclosure of annual environmental monitoring reports will be undertaken during project implementation.

122. Consultation with potentially affected people and key stakeholders will take place at different points in the preparation and implementation of the project, and will be designed not only to inform people about the component or specific activities related to its preparation and implementation, but also to enable people in the community to ask questions, make suggestions, state preferences, and express concerns. Special attention will be paid to the participation of women and any other vulnerable groups, such as the poor.

X. ANTICORRUPTION POLICY

123. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project. 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/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.

124. To support these efforts, relevant provisions are included in the loan agreement/regulations and the bidding documents for the project.

XI. ACCOUNTABILITY MECHANISM

125. 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 operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make a good faith effort 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.²⁹

²⁹ For further information see: <http://www.adb.org/Accountability-Mechanism/default.asp>.

XII. RECORD OF PAM CHANGES

126. All revisions/updates during the course of implementation are retained in this section to provide a chronological history of changes to implemented arrangements recorded in the PAM.

No.	PAM Changes/Updates	Date	Remarks
1	Initial draft		First draft provided to executing agency during fact-finding mission
2	Updated draft		
3	Updated draft	16 April 2020	PAM updated for the Additional Financing (Loan Negotiations version)

PAM = project administration manual.

Financial and Procurement Management Assessment Report**Government of Mongolia
Ministry of Health****Fifth Health Sector Development Project****June 2012**

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Annex 1: Procurement Capacity Assessment

Annex 2: Financial Management Assessment Questionnaire

EXECUTIVE SUMMARY

1. Financial management assessments have been conducted for the Ministry of Health (MOH), Ulaanbaatar City Mayor's Office, National Center for Transfusion Medicine (NCTM), and for the National Center for Communicable Diseases (NCCD). While the assessment for the MOH, the Ulaanbaatar City Mayor's Office, and the project implementation unit (PIU), carried out as part of project preparation of the Fourth Health Sector Development Project (FHSDP) in 2010,¹ were updated, an assessment of the NCTM as well as the NCCD was carried out for the preparation of the Fifth Health Sector Development Project (FiHSDP). All four agencies have adequate accounting professionals and are equipped with computerized financial accounting and reporting systems. Procedures on the flow of accounting, financial, and project physical progress related to their current project activities are available. All the agencies have clearly defined responsibilities with accountability allocated to different units at different levels of authority within their institutions.
2. The overall benefits and impacts are expected to outweigh the costs and risks involved. Major risks and mitigating measures are summarized in the following table and are described in detail in the risk assessment and risk management plan.²

Summary of Risks and Mitigating Measures

Risks	Mitigating Measures
Delayed establishment of the new National Center for Transfusion Medicine caused by lack of government investment, late assignment of staff, and insufficient allocation of recurrent funds	ADB and the PIU will monitor inclusion of adequate investment and recurrent funding in the MOH budget, 2013–2014. A loan covenant makes provision for the government's timely establishment of the new National Center for Transfusion Medicine.
High inflation and appreciating local currency caused by the booming economy result in escalating project costs.	Plan for sufficient contingency funding. Include an assurance in the project that the government will pay for any shortfall of funding.
Government (counterpart) funds to finance recurrent costs generated by project investments and activities are not available on time.	A loan covenant makes provision for adequate counterpart funding. The project will estimate adequate recurrent costs and ensure their inclusion in the MOH budgets.

ADB = Asian Development Bank, MOH = Ministry of Health, PIU = project implementation unit.

Source: Asian Development Bank.

1. Country-level Issues

3. Country issues that potentially impact project financial management include overall weaknesses in budget credibility and execution and in both external and internal audit. Country Public Finance Management arrangements were assessed in a Public Expenditure and Financial Management Review published in 2010 and the Report on Observance of Standards and Codes, Mongolia 2008. There it is reviewed that although the government financial management is based on a robust legislative framework there are a number of areas affecting budget credibility which require strengthening at sectoral level to guide medium term sectoral resource allocations, enhancement of local authority participation in budget setting and improved coordination and integration of Official Development Assistance. Country-level audit issues are centered on the lack of internal audit functions. This was addressed through the introduction of the internal audit unit at the MOH in 2011, according to the Government rule No.311 (2011) and No.98 (2012).

¹ ADB. 2010. *Report and Recommendation of the President to the Board of Directors: Proposed Grant to Mongolia for the Fourth Health Sector Development Project*. Manila.

² Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

Although the internal audit unit is not fully staffed, the framework for internal audit has been established. The National Audit Office, responsible for the external audit of government agencies, has limited capacity because of the Government Financial Management Information System is not fully operational.

2. Risk Analysis

4. The risk assessment approach is based largely on International Standard on Auditing 400 Risk Assessment and Internal Control. Inherent risk was assessed as moderate largely due to the project financial management arrangements utilizing the existing PIU set up for the Asian Development Bank (ADB)-supported FHSDP.³ Control risk was also rated as moderate partly due to the extensive experience of the MOH in implementing health sector projects with financial support from ADB.⁴ The responsibility of the PIU of the FHSDP will be expanded to include implementation of the FiHSDP. Technical coordinators for the FiHSDP will be added to the PIU. The contract period of the current PIU staff, except for the hospital services development coordinator and the drug safety coordinator, will be extended to the end of the FiHSDP.

3. Risk Mitigation

5. The project design is based on previous experience gained by ADB through working with the MOH. The fund flow and disbursement arrangements for the project will be the same as those used for the FHSDP and the PIU from that project will be expanded. The PIU of the FiHSDP will maintain separate books of accounts for the project managed until assurance is established for the Government Financial Management Information System. The ADB loan includes provision for contracting external auditors from the private sector for the duration of project implementation.

Risk	Risk Assessment	Risk Mitigation Measures
a. Funds flow	Medium	The Government has provided assurance on the timely availability of counterpart funds starting in 2013.
b. Internal audit	Medium	MOH Internal Auditing, Monitoring and Evaluation Department will provide internal control services. The implementation consultants will also review and assess the adequacy of this arrangement.
c. External audit	Medium	An external auditor acceptable to ADB will audit the project accounts annually in accordance with the international standards of auditing. Audited project accounts are required to be submitted to ADB within 6 months after the end of a calendar year.
d. Accounting policies and procedures	Medium	Accounting policy and procedures manual for the PIU will be based on the manual of the Fourth Health Sector Development Project, taking into account the national accounting standards and the requirements of ADB.
e. Reporting and monitoring	Low	PIU, and the implementations consultants will regularly report in accordance with ADB requirements on inherent adequate control mechanisms.
f. Information systems	Low	The computerized information systems established for the Fourth Health Sector Development Project will be used by the PIU. The

³ Inherent risk is the susceptibility of the financial management system to factors arising from the environment in which it operates, such as country rules and regulations and entity working environment (assuming absence of any counter checks, or internal controls).

⁴ Control risk is the risk that the accounting and internal control framework is inadequate to ensure funds are used economically and efficiently and for the purpose intended, and that the use of funds is properly reported.

Risk	Risk Assessment	Risk Mitigation Measures
		implementation consultants will assist the PIU to strengthen the efficiency of existing information system and reporting.

ADB = Asian Development Bank, MOH = Ministry of Health, PIU = project implementation unit.

A. Project Description

6. The project builds on hospital sector reforms initiated under previous ADB-funded operations in Mongolia, including the FHSDP to strengthen hospital services. ADB sector recommendations emphasize the need for structural changes in health care delivery by rationalizing excess hospital capacity at the secondary and tertiary levels, particularly in Ulaanbaatar.⁵ The FHSDP is engaged in reforming the hospital sector but hospital rationalization needs to be complemented with increased quality and safety aspects of hospital services to provide effective care and lower resistance to sector reforms. The project will deliver tangible benefits to women by ensuring higher safety standards to protect staff, the majority of whom are women, against (HAI) and improving safety of blood transfusions in hospitals.

7. The government seeks to reinforce blood safety in hospitals and improve preparedness for emergencies, improve hospital medical waste treatment and disposal and strengthen infection control in the Mongolian health care facilities to reduce hospital-acquired infection in Mongolia. The project builds on previous ADB health sector development initiatives to continue and is in line with ADB's Operational Plan for Health in addressing sector governance issues and promoting more efficient allocation of health resources.⁶ Further investments in the health sector are expected as the economic outlook for Mongolia is promising and so the challenge for this project is to ensure that investments are used efficiently to improve accessibility and service delivery.

8. The project utilizing an ADB loan amounting to \$30.0 million composed of three components to address the issues identified with the following outputs:

- (i) **Component 1: Safe blood transfusion.** The project will assist in establishing the new NCTM in Ulaanbaatar by providing equipment, improving management systems, implementing capacity building measures, and seeking international accreditation of the center. A model maintenance unit will be developed in the NCTM, which will serve as a basis to strengthen maintenance systems and capacities in hospitals covered by the project. The project will also improve blood safety in aimag general hospitals and selected *soum* health centers, providing equipment, training to concerned personnel, and organizing blood donor management systems, including public awareness.
- (ii) **Component 2: Medical waste management.** The central medical waste management facility in Ulaanbaatar will be upgraded to meet internationally accepted standards by funding minor civil works, procuring equipment, improving management systems, and providing capacity building for personnel. The monitoring and inspection capacity of the MOH and the General Agency for Specialized Inspection (GASI) on medical waste will be strengthened. Medical waste management systems, including liquid hazardous waste, will be strengthened to meet national standards in hospitals in Ulaanbaatar, Erdenet, Darkhan, and selected aimag general hospitals' by providing basic equipment,

⁵ Independent Evaluation Department. 2008. *Country Assistance Program Evaluation: Mongolia—From Transition to Takeoff*. Manila: ADB.

⁶ ADB. 2008. *An Operational Plan for Improving Health Access and Outcomes under Strategy 2020*. Manila.

raising awareness and training personnel, and ensuring that recurrent funding for medical waste is sustained.

- (iii) **Component 3:** Hospital hygiene and infection prevention and control. Microbiology laboratories in hospitals in Ulaanbaatar, Erdenet, Darkhan, and selected *aimag* general hospitals will be provided equipment to ensure effective infection prevention and control (IPC) and existing policies and guidelines will be reviewed. In hospitals, basic infrastructure and equipment will be developed, maintenance capacity will be strengthened and adequate funding of recurrent costs for IPC will be institutionalized. An effective surveillance system for HAI will be gradually developed by improving policies and guidelines, assigning responsibilities, developing incentives for proper reporting, and piloting the system. Awareness, knowledge, and capacity of health authorities, health care workers and administrative staff on IPC will be strengthened. IPC will be incorporated in hospital continuous quality improvement tools, and an improved inspection module for IPC will be used by GASI to promote IPC.

9. The FiHSDP is financed by a loan from the Asian Development Fund and counterpart funding (in-kind) from the World Health Organization (WHO) and the German Federal Ministry of Health providing consulting services, overseas and local training support, and purchase of some medical and laboratory equipment.

10. The MOH will be the executing agency of the project and the implementing agency for all outputs except outputs 1 and 3. The MOH will designate focal point persons for each project component who will chair multisectoral working groups providing coordination support for the preparation and implementation of the project to ensure achievements of the project's objectives. The NCTM will be the implementing agency for the establishment of the new NTC (output 1 of the design and monitoring framework). Ulaanbaatar City Mayor's Office will be the implementing agency for strengthening the Ulaanbaatar City central medical waste management facility (output 3 of the design and monitoring framework) and will be closely associated to and supervise the implementation of project activities in the district hospitals of Ulaanbaatar City. The NCCD will be the implementing agency for strengthening infection prevention and control (outputs 5,6,7,8, and 9 of the design and monitoring framework).

11. The responsibility of the PIU of the FHSDP will be expanded to include the implementation of the FiHSDP. A project technical coordinator for the three components of the FiHSDP will be added. The contract period of the current PIU staff, except for the hospital services development coordinator and the drug safety coordinator will be extended to the end of the FiHSDP. The unit will be responsible for project coordination and day-to-day implementation of project activities including procurement, disbursement, review and monitoring, progress reporting, and management of consulting services. The PIU will consult closely with relevant health facilities, agencies, and international partners.

12. This assessment report addresses the weaknesses of existing systems and the proposals for achieving reliable and timely financial management.

B. Country Issues

13. The country level issues relating to financial management are summarized from the Mongolia: Consolidating the Gains, Managing the Booms and Busts, and Moving to Better Service Delivery Public Expenditure and Financial Management Review published by the World Bank and the Government of Mongolia in January 2009 and the Report on Observance of Standards and

Codes, Mongolia March 10, 2008. Both reports identify overall weaknesses in financial governance and transparency for the private sector and financial sector and weaknesses in the current Audit Law. Of relevance to the proposed project the main areas of financial management weakness and potential risk in the government sector are identified below. In December 2011 the Public Sector Management and Finance Law replaced the Public Sector Management and Financial Act (no official translation is available), which also cover the internal audit law)..

14. **Budget credibility:** The Public Expenditure and Financial Management Review –March 2010 and for FHSDP in June 2010 review found that although the government financial management is based on a robust legislative framework, the Public Sector Management and Finance Law (PSMFL 2003), there are a number of areas affecting budget credibility which require further strengthening at sectoral level. The financial management of Mongolia was revised and is covered in three laws (1) the Financial Stability Law issued in the year 2010 (reflecting on income and distribution of income from mining), (2) the Mongolian Integrated Budget Law (December 2011) and the (3) Public Sector Management and Finance Law (December 2011). The new laws are addressing fiscal planning, a performance orientation to resource allocation and budget management and a modified accrual based accounting system. Nevertheless, implementation and strengthening need to cover the following:

- (i) There is a need for the health sector to convert its master plan into medium term action plans to allow the Medium Term Budget to naturally incorporate sectoral strategies into the medium term resource allocations. Sectoral medium term expenditure frameworks are not currently prepared.
- (ii) Enhancement of local authority participation in budget setting. Local authorities have responsibility for service delivery through performance contracts with sector ministries however have little input into the budget preparation process.

15. Improvements in budget execution processes have been evidenced since the introduction of the Public Sector Management and Finance Law in 2003, however, the continued execution of official development assistance (ODA) through extra-budgetary accounts has received criticism in the Public Expenditure and Financial Management Review. This practice leads to fragmented budget execution and dilutes the accountability for and reporting on the resources provided by development partners.

16. **Procurement risks** relating to the country system have been identified in the procurement capacity assessment (Annex 1). However; there are weaknesses in the procurement process that could have an impact on the project financial management. These are identified as:

- (i) Practice of preparing procurement plans after the approval of the budget as a means of spending the budget rather than as part of budget preparation and calculation.
- (ii) Procurement completion reports are available but are not integrated into the financial management system highlighting a need for improved reporting mechanisms.
- (iii) Need for capacity building has been identified to ensure that all nominated personnel involved in procurement are familiar with the procurement law.
- (iv) Evidence provide by the private sector suggests that public procurement entities are perceived as weak in terms of planning, budgeting capability and technical expertise.

17. **Internal and external audit functions** in the government sector of Mongolia exhibit system weaknesses. For internal audit the inspectors' focus is primarily regulatory compliance

(imposing penalties and giving instructions for reimbursement of money that has been wrongly applied) with no emphasis on the efficient or effective use of public funds. The lack of internal audit function within sector ministries puts the internal control mechanisms at risk. Country-level audit issues in the past are centered on the lack of internal audit functions. This was addressed through the introduction of the internal audit unit at the Ministry of Health in 2011, according to the Government rule No.311 (2011) and No.98 (2012). Although the internal audit unit is not fully staffed, the framework for internal audit has been established. The National Audit Office, responsible for the external audit of government agencies, has limited capacity because of the Government Financial Management Information System is not fully operational.

18. In the case of external audit the National Audit Office is deemed to require capacity building in order to be able to effectively audit the government financial management information system prior to gaining donor confidence in migrating to the use of government financial management systems.

C. Risk Analysis

19. The risk-assessment approach is based largely on International Standard on Auditing 400 Risk Assessment and Internal Control. The following risk assessments are based on existing circumstances, staffing and procedures, and include recommendations for risk mitigation measures.

20. Inherent risk is the susceptibility of the project financial management system to factors arising from the environment in which it operates, such as country rules and regulations and entity working environment.

1. Overall Inherent Risk

Risk Type	Risk Assessment	Risk Description	Risk Mitigation Measures
1. Country-Specific Risks	M	<p>Budget credibility at sector level is weakened by the lack of medium-term action plans to guide medium-term resource allocation. Local authorities are not widely consulted in setting sectoral budgets although are responsible for service delivery. There is a risk that the counterpart funds for the recurrent budget needs as a result of the investment are not available at the time needed.</p> <p>Government auditors are not experienced in auditing the Government Financial Management Information System (GFMS).</p>	<p>PIU responsible for assuring the government counterpart funds are included in MOH budget appropriations.</p> <p>Project implementation consultants support the strategic and capital planning processes for the hospital sector reducing the risk that recurrent budget implications are not incorporated.</p> <p>Separate accounting records are maintained for the project in parallel to the government accounting system.</p>
2. Entity-Specific Risks	S	<p>Lack of political commitment for either hospital sector reform. While this does not have a direct effect on project financial management it could affect the rate of project implementation,</p>	<p>Project Steering Committee to have membership from all implementing agencies.</p> <p>Regular supervisory and review missions including financial</p>

Risk Type	Risk Assessment	Risk Description	Risk Mitigation Measures
		Lack of commitment amongst hospital sector management for reform. Potential for political interference in appointment of unqualified personnel to procurement committees	management and procurement assessments. PIU coordinate the procurement process on behalf of the project and Project Implementation Consultants provide technical support to procurement committees
3. Project Specific Risks	M	It was decided that the establishment of the PIU for the FiHSDP will be combined with the FHSDP and expand the current PIU to the upcoming project, which has the benefit of exploiting the finance and administration staff's working knowledge of ADB regulations and procedures;	MOH should ensure that the technical coordinators are appointed on time.
Overall Inherent Risk	M		

ADB = Asian Development Bank, FHSDP = Fourth Health Sector Development Project, FiHSDP = Fifth Health Sector Development Project, MOH = Ministry of Health, PIU = project implementation unit.

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

2. Overall Control Risk

Risk Type	Risk Assessment	Risk Description	Risk Mitigation Measures
Control Risk			
1. Implementing Entity	M	Minor deficiencies and misinterpretation of ADB guidelines in disbursement and withdrawal of project funds by MOH. Financial management duties of program management and project components need to be clearly defined. Reporting structure for program management and various components needs to be agreed.	MOH/implementing agencies to liaise regularly with ADB to ensure that ADB guidelines are followed. Interagency coordination at all levels to discuss the grant performance. A clear authority and reporting structure to be agreed, clearly defined financial management and reporting duties to be defined for program management and project components:
2. Funds Flow	N	The MOH has many years of experience in managing ADB funds.	The fund flow processes used in previous projects will be followed. Funds from ADB and MOF will be managed by PIU through dedicated imprest accounts

Risk Type	Risk Assessment	Risk Description	Risk Mitigation Measures
3. Staffing	M	<p>There is a risk that agency accounting staff is lacking understanding of the project activities.</p> <p>Financial management staff at the implementing agencies are appropriately qualified and experienced in the implementation of foreign development funded projects. Their role in the financial management for the project is limited to incorporation of the project in agency budget preparation and performance reporting.</p>	Initiate training in ADB financial management procedures, especially procurement and disbursement procedures, for newly appointed PIU personnel at the start of the program.
4. Accounting Policies and Procedures	M	<p>The project will use the Government of Mongolia accounting system which adequately allows the proper recording of project financial transactions. The Chart of Accounts is adequate to properly account project activities and disbursement categories.</p> <p>A financial procedures manual is available for the THSDP and will require some modification for the FHSDP.</p> <p>The PIU will prepare its own budget and present to MOH management for approval. Government funded recurrent budgets will need to be included in the respective agency budgets and this will require coordination between MOH, Ulaanbaatar City and the State Specialized Inspection Agency to ensure completeness.</p> <p>There are no explicit conflict of interest or related party transaction policies and procedures.</p>	A FiHSDP manual should be developed, where necessary enhancing existing government procedures for areas such as conflict of interest clauses.
5. Internal Audit	H	According to the Government rule No.311 (2011) Ministry of MOH has launched No.98 (2012) for the establishment of an internal audit unit. Although it is not fully staffed, the framework for internal audit has been established.	It can be expected that the Unit will be fully operational by the end of the year 2012. Until the quality of the internal audit is recognized, external auditor should continue to be contracted for the project.
6. External Audit	N	The National Audit Office has responsibility to audit all government ministries and agencies on an annual basis.	No action needed

Risk Type	Risk Assessment	Risk Description	Risk Mitigation Measures
		External auditing firms are contracted for annual audit of development partner funded projects	
7. Reporting and Monitoring	N	All financial reports are prepared in accordance with the Public Sector Financial Management Law. The integrated Chart of Accounts is consistent with International Accounting Standards. Government financial reports are prepared from the Government Financial Information System. Financial information is not clearly linked to physical progress from the government accounting system for projects and supplementary reports are prepared outside of the system.	PIU to prepare and submit to ADB quarterly and annual progress reports on project implementation and operation.
8. Information Systems	M	The GFMIS was introduced across the country in 2005. Project financial reports can be prepared from the GFMIS. The World Bank undertook compliance checks of GFMIS and found it adequate however noted the lack of skills for National Audit Office auditors in regard to auditing the GFMIS information.	ADB financial procedures and books of accounts to continue to be maintained separately by the PIU in parallel to the GFMIS.
Overall Control Risk	M		

* H = High, S = Substantial, M = Moderate, N = Negligible or Low.

ADB = Asian Development Bank, FHSDP = Fourth Health Sector Development Project, FiHSDP = Fifth Health Sector Development Project, GFMIS = Government Financial Management Information System, MOF = Ministry of Finance, MOH = Ministry of Health, PIU = project implementation unit, THSDP = Third Health Sector Development Project.

D. Project Financial Management System: Strengths and Weaknesses

1. Strengths

22. The Government of Mongolia financial management system is based on a robust legislative framework, The Public Sector Management and Finance Law, latest update from December 2011. The MOH has significant experience in the implementation of ADB-financed projects and personnel are familiar with ADB financial management procedures. Current fund flow and disbursement mechanisms employed by the FHSDP will be used for the upcoming project and the expansion of the PIU into the FiHSDP will avoid loss in experience and knowhow of the disbursement mechanism.

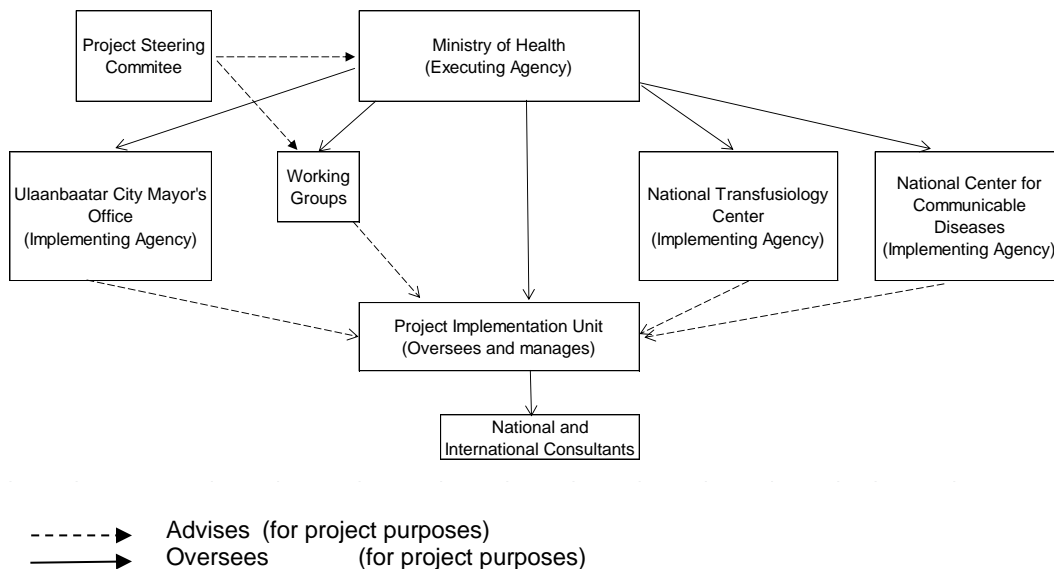
2. Weaknesses

23. The dispersed implementation arrangements for the project, involving four government agencies, the PIU and project implementation consultants requires a clear establishment of roles for each of the parties in the financial management of the project. This is essential in order to ensure capital investments are included in the government budget. Lack of government auditor experience in auditing the Government Financial Management Information System. The Internal Audit function at the MOH is established but not yet fully developed. Financial inspection from the State Specialized Inspection Agency is focused only on legislation compliance rather than financial performance and internal controls.

3. Significant Weakness Resolution

24. Continue to maintain separate books of accounts for the project managed by the PIU until confidence is built for the Government Financial Management Information System. Until the function of the internal audit is secured and recognized, external auditors for the duration of project implementation shall be contracted.

E. Implementing Entity



25. The role of the project steering committee of the FHSDP will be expanded and extended to cover the FiHSDP. It is chaired by the Vice Minister of Health and composed of senior officials from the MOH, Ministry of Finance, Ministry of Social Welfare and Labour, the Ministry of Nature, Environment And Tourism (MNET) the State Social Insurance General Office, the Ulaanbaatar City Mayor's Office, GASI, the Health Sciences University of Mongolia, Pharmaceutical Association, Hospital Association, Mongolian Consumer Association, and the Mongolian Association of Family Doctors. A representative of the NCTM and the NCCD will be added to the current list of members.

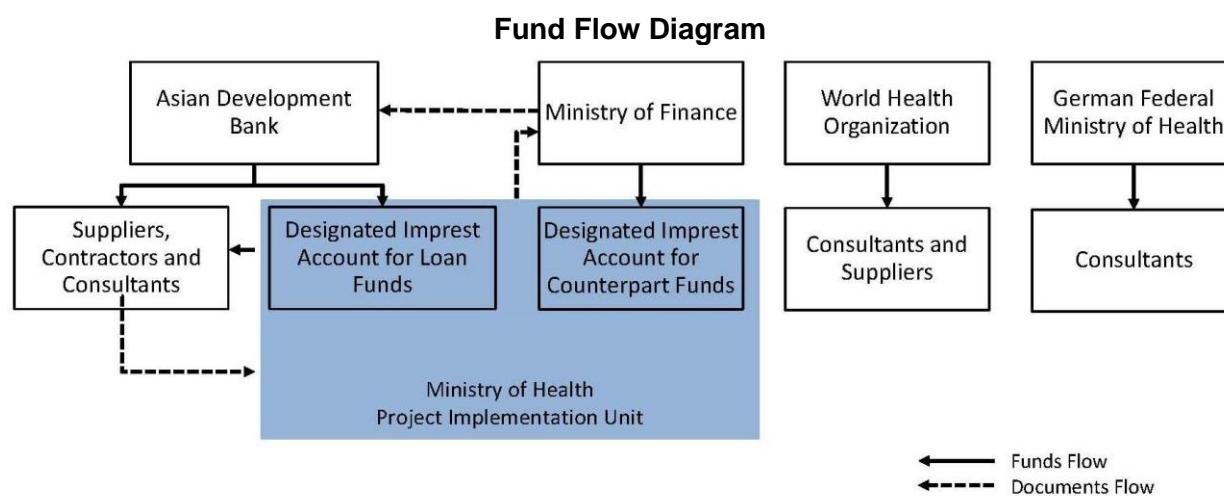
26. The MOH will be the executing agency of the project and the implementing agency for all outputs except outputs 1 and 3. The MOH will designate focal point persons for each project

component who will chair multi-sectoral working groups to ensure achievements of the project's objectives.

27. The Ulaanbaatar City Mayor's Office will be the implementing agency for strengthening the Ulaanbaatar waste management facility (output 3 of the design and monitoring framework) and will be closely associated to the implementation of project activities related to the district hospitals of Ulaanbaatar City. The NCTM will be the implementing agency for the establishment of the new NCTM (output 1 of the design and monitoring framework) and the NCCD will be the implementing agency for strengthening infection prevention and control (outputs 5,6,7,8, and 9 of the design and monitoring framework).

28. The responsibility of the PIU of the FHSDP will be expanded to include implementation of the FiHSDP. The contract period of the current PIU staff, except for the hospital services development coordinator and the drug safety coordinator will be extended to the end of the FiHSDP. Technical coordinators for the FiHSDP will be added to the PIU. The contract period of the current PIU staff, except for the hospital services development coordinator and the drug safety coordinator, will be extended to the end of the FiHSDP.

F. Fund Flow Mechanisms



29. The MOH will be the executing agency for the project loan agreement and other agreements. The co-financier will jointly monitor the project and review its progress to ensure that the funds are spent as agreed upon. When the loan becomes effective a designated imprest account will be opened in ADB's books in the name of the MOH. Disbursement procedures and the management of the imprest account are described in Section N. of this report.

30. Direct payments will be made to suppliers, contractors and consultants.

31. Government counterpart funds will flow from the Ministry of Finance to a separate imprest account held by the MOH and managed by the PIU. The amount of counterpart funds is to be reflected in the government budget for the MOH and approved using normal government budget approval processes.

32. Project contributions from WHO and the German Federal Ministry of Health will be cofinanced in-kind and financial management will be the responsibility of WHO and the German Federal Ministry of Health.

G. Personnel

33. The MOH has agreed that financial management for the project will be managed by the PIU with dedicated procurement and financial management personnel. The responsibility of the PIU of the FHSDP will be expanded to include the implementation of the FiHSDP. A project technical coordinator for the three components of the FiHSDP will be added. The contract period of the current PIU staff, except for the hospital services development coordinator and the drug safety coordinator will be extended to the end of the FiHSDP. The unit will be responsible for project coordination and day-to-day implementation of project activities including procurement, disbursement, review and monitoring, progress reporting, and management of consulting services. The PIU will consult closely with relevant health facilities, agencies, and international partners.

34. Ideally personnel recruited will be experienced in ADB procedures however if this is not possible then it is essential that arrangements are made by the ADB and the MOH to ensure that training in agreed financial management procedures is provided as soon as the project loan becomes effective. This should be provided by the ADB country office and/or the MOH personnel experienced in the implementation of ADB projects such as the financial management personnel appointed for the FHSDP. Under these circumstances it is recommended that a financial management review be a priority area of review for the ADB review missions.

35. The permanent financial management personnel of the government entities involved in the implementation of the project have experience in the implementation of foreign-funded investment projects. In the case of the MOH it has been implementing ADB-financed projects since 1991. The Ulaanbaatar City Authority have experience with ADB financed projects and received financial and technical support from the World Bank to strengthen public expenditure management capacity and human resources management in the municipality and the State Specialized Inspection Agency have received financial and technical support from GTZ and UNDP. The NCTM and the NCCD have experience with Global Fund project implementation.

H. Accounting Policies and Procedures

36. The government, through the project implementation unit, will set up and maintain separate project accounts and records by funding source for all expenditures incurred on the project, following accounting principles and practices prescribed by the Government of Mongolia Accounting Law. The law requires financial statements to be prepared following internationally recognized accounting standards.

I. Internal Audit

37. The internal audit function is weak across the Government of Mongolia and there is currently no internal audit in the MOH. This situation is to be addressed through a planned ADB supported project in the Ministry of Finance which plans to introduce internal audit functions in line ministries including the MOH from 2011. In addition, this was addressed through the introduction of the internal audit unit at the MOH in 2011, according to the Government rule No.311 (2011) and No.98 (2012). Although the internal audit unit is not fully staffed, the framework for internal audit has been established. Of the implementing agencies the Ulaanbaatar City Authority does have an internal audit function staffed with certified auditors which reports to the City Council. The State Specialized Inspection Agency has a staff complement of 20 State Agency Inspectors with the remit to inspect the financial status of other government agencies but does not have an internal audit department of its own.

38. It is recommended that while this situation persists external audits will be conducted to identify financial weaknesses and irregularities for the project and the project financial costing tables provide ADB funding for annual external audits.

J. External Audit

39. Government entities are audited annually by the National Audit Office. The National Audit Office prepares timely annual audit reports and there have been no substantial audit comments for the MOH as executing agency or the project implementing agencies.

40. In addition to the usual government auditing process, there will be an annual external audit of the project financial reports and records funded from the ADB component of the project financing by an independent audit firm nominated by the Ministry of Finance and acceptable by the ADB. The audited accounts will be submitted in the English language to ADB within 6 months of the end of the fiscal year by the MOH. The annual audit report should include a separate auditor's opinion on the use of the imprest account and statement of expenditures. The government and the MOH have been made aware of ADB's policy on delayed submission, and the requirements for satisfactory and acceptable quality of the audited accounts. 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.

K. Financial Reporting and Monitoring

41. All government agencies currently prepare entity financial reports in accordance with the Public Sector Financial Management Law. The integrated Chart of Accounts is consistent with International Accounting Standards. It is not possible through the government system to link the financial information with the project's physical progress and this will need to be prepared outside of the government system using supplementary application such as MS Office.

42. Financial reporting will include whole-of-program accounts and donor-specific reports, showing as a minimum requirement:

- (i) expenditure analyzed by program categories and components;
- (ii) a register of all assets acquired under the program; and
- (iii) a register of all contracts showing the status of expenditure against each.

43. In addition to the financial reports, the MOH will establish a comprehensive project performance monitoring system acceptable to ADB. The system will assess performance by (i) evaluating delivery of planned activities; (ii) measuring project impacts; (iii) measuring health, social, and economic benefits with a focus on the poor, women, and disadvantaged groups; and (iv) monitoring achievement of Millennium Development Goals and other Government targets. Indicators will serve as a basis to prepare reports on project implementation and the reform process, improved use of resources, improved access to services (particularly for the poor), improved service quality, client satisfaction, and progress in achieving Millennium Development Goals. Performance indicators are set out in the design and monitoring framework. Some indicators will be monitored through surveys financed under the Project, while others will be monitored through routine administrative and financial data. Where feasible, indicators will be disaggregated by socioeconomic level and gender.

44. The compliance status of project loan and project covenants will be reported and assessed through the quarterly progress reports and verified by ADB review missions.

L. Information Systems

45. As with the FHSDP, the FiHSDP will also use the Government Financial Management Information System. This system introduced across the Government of Mongolia in 2005. The system is already being used by the MOH to generate the necessary project reports for the ADB for the FHSDP.

M. Procurement Arrangements

46. All procurement of goods and works will be undertaken in accordance with ADB's Procurement Guidelines (2010, as amended from time to time). International competitive bidding (ICB) will be applied to supply of goods contracts estimated to cost \$500,000 or more. The civil works contracts for the demonstration hospital and nursing home and other supply contracts with values less than \$500,000 will follow national competitive bidding (NCB), and those less than \$100,000 will be procured using ADB's shopping procedure. NCB procurement will be carried out on the basis of NCB procedures, in accordance with the Mongolian Procurement Law, subject to modifications agreed with ADB. Before the start of any procurement ADB and the government will review the public procurement laws of the central and state governments to ensure consistency with ADB's Procurement Guidelines. The internationally tendered equipment packages will include the necessary technical support for ensuring proper installation, testing, commissioning, and training of operational staff as part of the related contracts. In accordance with ADB requirements, foreign contractors may participate in bidding for NCB contracts. All consultants will be recruited according to ADB's Guidelines on the Use of Consultants (2010, as amended from time to time). Procurement methodologies will be incorporated into the project administration manual.

47. The implementing project consultant will assist the PIU in all the procurement activities especially in preparation of specifications, monitoring supply and commissioning. For the civil works activity an external architectural/engineering company will assist in assessment and specifications related to new construction and renovation.

N. Disbursement Arrangements

48. The loan proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2012, as amended from time to time), and detailed arrangements agreed upon between the government and ADB. The WHO cofinancing will be provided as in-kind, parallel financing, and expenditures will be paid in accordance with WHO disbursement procedures. The German Federal Ministry of Health's contribution will be provided as parallel financing and expenditures will be paid in accordance with the Ministry's disbursement procedures. The contribution will be in kind and provided by the German Federal Ministry of Health through the University Hospital Essen, Germany.

49. Pursuant to ADB's Safeguard Policy Statement (2009), ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of the Safeguard Policy Statement. All financial institutions will ensure that their investments are in compliance with applicable national laws and regulations and will apply the prohibited investment activities list (Appendix 5) to subprojects financed by ADB.

50. To facilitate project implementation through timely release of loan proceeds, the Government of Mongolia will establish an imprest account at a commercial bank acceptable to ADB. The project implementation unit will administer the imprest account. The maximum amount to be deposited in the imprest account will not exceed the estimated expenditures for the succeeding 6 months to be funded from the imprest account, or 10% of the loan amount, whichever is lower. The request for initial advance to the imprest account should be accompanied by an Estimate of Expenditure Sheet setting out the estimated expenditures for the first six (6) months of project implementation, and submission of evidence satisfactory to ADB that the imprest account has been duly opened. For every liquidation and replenishment request of the imprest account, the government will furnish to the ADB (a) Statement of Account (Bank Statement) where the imprest account is maintained, and (b) the Imprest Account Reconciliation Statement (IARS) reconciling the above mentioned bank statement against the executing agency's records.

51. To expedite flow of funds and simplify the documentation process, the ADB statement-of-expenditure procedure will be used for liquidation and replenishment of the imprest account, and for reimbursement of eligible expenditures not exceeding \$50,000 per individual transaction. The payments in excess of the statement-of-expenditure ceiling will be reimbursed, liquidated, or replenished based on full supporting documentation. Statement-of-expenditure records should be maintained and made readily available for review by ADB's disbursement and review mission or upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit.

52. The civil works and equipment procured through ICB and consultant contracts will be paid by ADB directly from the loan funds using direct payment procedures.

53. Before the submission of the first withdrawal application, the government should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the Borrower, together with the authenticated specimen signatures of each authorized person. The minimum value per withdrawal application is \$100,000, unless otherwise approved by ADB. The government is to consolidate claims to meet this limit for reimbursement and imprest account claims. Withdrawal applications and supporting documents will demonstrate, among other things that the goods, and/or services were produced in or from ADB members, and are eligible for ADB financing.

O. Action Plan

54. Agree on the management and reporting structure of the projects and activities within the MOH, Ulaanbaatar City Authority and the State Specialized Inspection Agency as well as with the NCTM and the NCCD.

55. Information systems – set up PIU office and procure IT equipment and networking for access to Government Financial Management Information System.

56. Develop a training plan and provide regular training on ADB financial procedures for PIU and implementing agencies particularly in disbursement and procurement procedures.

P. Financial Covenants

57. The government, through the MOH, will (i) in line with cost estimate prepared by the project, allocate funding in the 2013 and 2014 budget of the MOH to cover the construction cost

of the new NCTM; (ii) ensure that the NCTM will be fully constructed by 31 December 2014; (iii) provide adequate space, staff, and resources for the maintenance department within the NCTM; (iv) provide adequate operational resources, including blood testing materials nationwide; (v) staff the NCTM by transferring qualified personnel from the current NTC and by recruiting new qualified staff to meet the personnel requirement of the new NTC; and (vi) obtain international accreditation of the new NCTM by 30 June 2018.

Q. Supervision Plan

58. ADB, WHO, and the government will jointly undertake reviews of the project at least twice a year. These reviews will include a review of the financial management and procurement arrangements. The reviews are to assess progress in each component, identify issues and constraints, and determine necessary remedial actions and adjustments. A midterm review will be conducted during the third year of implementation. The midterm review will (i) review the scope, design and implementation arrangements and identify adjustments required; (ii) assess progress of the project implementation against performance indicators; and (iii) recommend changes in the design or implementation arrangements, if necessary.

Proposed Project Name: MON: Fifth Health Sector Development Project	Proposed Amount US\$ 30 million
Executing Agency (EA): Ministry of Health	Source of Funding: Asian Development Fund
Assessor:	Date:
<p>Expected Procurement</p> <p>The project will contract procurement for minor civil works on blood banks, microbiology laboratories and Central Sterilization Service Departments of the project specific facilities, as well as for the construction of medical waste treatment and storage buildings. Equipment provision encompasses equipment for the new national transfusiology center, blood banks, medical waste treatment, Central Sterilization Service Departments, and microbiology laboratories. It is expected that \$22.4 million worth of goods will be procured through International Competitive Bidding (7 contracts) and \$2.8 million through national competitive bidding (14 contracts). Consultancy procurement will consist of procurement of a consulting firm (project implementation consultants) through quality- and cost-based selection (QCBS). Up to 5 smaller consultancy packages are for software and graphic design development, architectural and engineering services—all of which will be carried out through consultants' qualification selection (CQS) procedures. While the Ministry of Health (MOH) is the executing agency for this project, the National Transfusiology Center will be the implementing agency for the establishment of the new national transfusiology center (output 1 of the design and monitoring framework), and will conduct tendering and procurement procedures associated with construction. Ulaanbaatar City Mayor's Office will be the implementing agency for strengthening the Ulaanbaatar waste management facility (output 3 of the design and monitoring framework) and will be closely associated to the implementation of project activities related to the district hospitals of Ulaanbaatar City.</p> <p>Assessment of the National Level</p> <p>Public Procurement is governed by the Public Procurement Law of Mongolia, which covers planning, tendering, contracting, and reporting. It also governs the settlement of disputes before the court, and responsibilities of both purchasers and bidders. There are manuals for different aspects of procurement. Public procurement is decentralized in Mongolia with government agencies and entities responsible for procurement implementation from advertising to awarding of contracts. However, supervision and oversight of procurement activities is centralized.</p> <p>Following a review of the Public Procurement Law of Mongolia and the recent 2007 procurement benchmarking review¹ the legal and regulatory framework for procurement appears to be adequate. The procurement benchmarking review noted the most significant risks in procurement are found in the institutional environment and implementation of the procurement law. Institutional weaknesses include the preparation process for the annual procurement plans, following budget approval rather than budget calculation according to procurement plan. Another weakness is the lack of a comprehensive system to link the procurement and financial management functions, and particularly inadequate safeguards in the financial management system which should ensure that procurement actions are not initiated without a budget. Other institutional weaknesses relate to the absence of quality control and performance evaluation processes against the procurement guidelines. Implementation weaknesses include the lack of a professional procurement cadre for public procurement personnel and the risk that members of Tender and Evaluation Committees are politically appointed and poorly qualified which could influence the choice of contractor or supplier. The</p>	

¹ PPCD, Ministry of Finance, Results of the Benchmarking and Assessment of the Mongolian Public Procurement System, 2007.

government is taking measures to increase the transparency and accountability of procurement activities through the introduction of some e-procurement principles. The Procurement Policy and Coordination Department maintains a procurement website, where procurement notices and results will be published. Currently while procurement notices are published, results of contract awards are not visible on the website.

General Agency Resource Assessment

The MOH as executing agency has been implementing Asian Development Bank (ADB)-funded projects since 1997. ADB is a lead donor in Mongolia's health sector and the project implementation unit established in the MOH to implement the Third and Fourth Health Sector Development Project will be expanded to include the coordination of procurement activities for the Fifth Health Sector Development Project (FiHSDP) providing continuity of experience in Government of Mongolia and ADB procurement rules. The responsibility of the project implementation unit (PIU) of the Fourth Health Sector Development Project (FHSDP) will be expanded to include implementation of the FiHSDP. A project technical coordinator for the FiHSDP will be added. The contract period of the current key PIU staff, will be extended to the end of the FiHSDP, with the exception of the hospital services development coordinator and the drug safety coordinator. The PIU will be responsible for project coordination and day-to-day implementation of project activities including procurement, disbursement, review and monitoring, and progress reporting.

Dedicated procurement staff in the MOH report to the Director of Finance and Investment. There are officers, one responsible for the procurement of civil works in the health sector and the other having responsibility for the procurement of medical equipment. The current project manager and procurement officer in the PIU have experience in managing procurement for ADB projects through their involvement in the on-going projects and are knowledgeable about ADB guidelines and procedures. There is one full-time procurement specialist and while this is considered sufficient for the upcoming program, the PIU will be supported by the project implementation consultants through a biomedical engineer for medical equipment and an architectural/ engineering company for civil works. Potential procurement risks arising from a lack of capacity and knowledge will be mitigated through assistance in detailed specifications, evaluation of tenders as well as commissioning.

Agency Procurement Processes: Goods and Works

The MOH will carry out all procurement for the project and will follow the Public Procurement Law of Mongolia in the preparation of bidding documents, general composition of bid evaluation committees, bid evaluation processes, and mechanisms. An appointed secretary of an evaluation committee, in this case the PIU, drafts bidding documents and specifications in consultation with the other members of the committee. The State Secretary of the MOH then approves the specifications as well as the bidding documents. There are standard bidding documents in use and also manuals for preparing bidding documents. The Public Procurement Law of Mongolia specifies a minimum period for preparation of bids as follows. 30 days for open bidding, 15 days for limited bidding, and 5 days for price comparison. The bid opening is done in public and late bids are not accepted. The minutes of the bid opening are taken and distributed to the evaluation committee members. An ad hoc evaluation committee undertakes evaluation of bids. International Competitive Bidding for medical equipment should have a bidding period of 45 days to allow international companies to submit comprehensive bids. According to the Public Procurement Law of Mongolia, procurement officials appointed to the evaluation committee should be certified in procurement as well as be specialized in a related sector for which goods, works or services are being procured. In the case of the MOH at least 50% of the committee should have procurement training certification from the Ministry of

Finance. For the procurement of civil works (construction and rehabilitation of hospitals), the MOH has an established construction management department, mainly staffed with engineers, which reports to the Director of Finance and Investment. This department has responsibility for the monitoring of civil works contracts with the help of the consultant engineers recruited as project implementation consultants. The MOH currently delegates the responsibility for civil works under MNT500 million (\$380,000) to Ulaanbaatar City Authority for hospitals in Ulaanbaatar, however, it retains responsibility for any procurement above this threshold. Within the FiHSDP one tender would fall under this category.

Apart from civil works, procurement of hospital equipment for medical waste management, Central Sterilization Service Departments, laboratories and blood banks will be included in the project. All the medical equipment has been earmarked for international competitive bidding. For national competitive bidding and international competitive bidding the first procurements for both works and goods will be subject to prior review by ADB.

Agency Procurement Processes: Consulting Services

The MOH will carry out all procurement for the project and will follow the Public Procurement Law of Mongolia Chapter 4, Articles 35-39, and the standard bidding document on request for proposal for procurement of consulting services. An evaluation committee is appointed which is tasked with drafting the terms of reference and the bidding document for the request of proposal. The terms of reference follow the standard format covering the background, tasks, inputs, objectives, and outputs. Assignments are advertised and expressions of interest are called for in local newspapers. The evaluation committee members develop the evaluation criteria. Typically those criteria are used that can describe consultants' experience and qualifications in a given field. The MOH uses an evaluation method similar to quality- and cost-based selection – establishing ranking for quality and price. The financial and technical proposals must be submitted in separate envelopes. The technical proposals are evaluated first, followed by a public opening at a notified and fixed time, of the financial proposals for those bidders whose technical proposals have attained at least the minimum score. Minutes of the financial proposal opening are distributed to the evaluation committee members. Face-to-face contract negotiations are undertaken with the winning bidders (usually within 1-5 days after the evaluation of financial proposals). The usual basis for negotiation is cost and time of implementation. The minutes of negotiation are taken and signed and contracts are awarded within 1 week of the negotiations.

The project will have one tender based on QCBS for the project consulting company and four tenders based on consultant qualification selection. The latter are to procure architectural and engineering services, a graphic design and printing company and expertise on medical waste environmental assessment and accreditation of the National Transfusiology Center.

The ADB Office of Anticorruption and Integrity performed a limited project procurement related review on the Third HSDP from September to October 2009. Findings from this review relating to the procurement of consultants found that in general there was compliance to the procurement rules but it was noted that the consultant selection/evaluation process could be strengthened. Recommendations included capacity building by ADB for key procurement staff and advice to the MOH to enforce transparency in its consultant selection/evaluation process, and to make sure that only technically qualified bidders are awarded with contracts. For the FiHSDP, the ADB will provide technical assistance to prepare the terms of reference for the project implementation consultants.

Process Control and Oversight

There is a standard statement of ethics for the civil service. Those involved in procurement are required to formally commit to it. While those involved in procurement are required to declare any potential conflict of interest, the procurement law merely states that it is preferred that officials appointed to the evaluation committee should not have relations or recent labor contracts with bidders. In the case of large procurement contracts valued over \$550,000 (at current exchange rate) for goods and services, \$120,000 for consultants, and contracts for works over \$680,000, procurement initiation is dependent on external approval from the Ministry of Finance. In the case of other procurement contracts, approval from the State Secretary of the MOH must be received. The State Secretary must approve a bidding document, invitation to pre-qualify or request for proposal; advertisement of an invitation for bids, pre-qualification or call for expressions of interest; evaluation reports and notice of awards; and contracts. The MOH makes attempts to monitor and report on contractual performance, however, this function is generally not well developed in Mongolia. Appropriate clauses are contained in the standard bidding documents but there are no further established procedures for the acceptance of final products. Inspection and supervision therefore have the potential to be weak. There is no systematic procurement process audit. The State Inspection Agency is responsible for internal controls and is adequately staffed. Those responsible for procurement receive their training in procurement from the Procurement Policy and Coordination Department; however, these are not procurement experts. The General Agency for Specialized Inspection (GASI) carries out audits in all spending areas over a two year period with an average per audit time of 20 days. In terms of procurement, checks are carried out to ensure that expenditure has been made within the financial limits, and general compliance inspections are also carried out to ensure consistency in procedures with the Public Procurement Law of Mongolia. External audits are carried out by the National Audit Office which is answerable to Parliament. The recent procurement benchmarking review noted that there is a tendency for both the National Audit Office and the State Inspection Agency to confuse various types of audits with the result that none appears to be carried out properly. In the case of performance audits, procedures exist but are not defined sufficiently to allow appropriate performance audits.

The major areas of procurement in the project are for medical equipment and civil works. In order to provide additional safeguards to the procurement processes for these areas technically qualified personnel are recruited for the PIU while technical assistance is provided from the project implementation consultants to the MOH for all stages of the procurement process. Adequate technical assistance inputs have been included in the project design.

Record Keeping and Audit

The MOH has been informed that as a minimum, ADB requires that the signed original contract and the evaluation report must be retained for at least 2 years after project completion. The Public Procurement Law of Mongolia together with the Order of the Minister of Finance, January 2007, requires that relevant documents and information related to transactions and contract management are archived for a period of at least 5 years and made available to appropriate authorities on request.

Summary Assessment and Recommendations

Based on the assessments of the individual elements above, the overall procurement capacity of the Executing Agencies is deemed adequate. Particular strengths include: the use of the existing PIU's experience in implementing ADB-funded projects including the ongoing Health Sector Development Projects; the PIU director and procurement officer's knowledge of ADB procurement guidelines; and a comprehensive procurement law.

<p>In the absence of a recent Sector Risk Assessment, the weaknesses identified here are general and cross-sectoral in nature. Identified weaknesses include the possibility of Tender and Evaluation Committee members being politically appointed and not having received the procurement training provided by the Procurement Policy and Coordination Department of the Ministry of Finance. The current standard within the MOH is to ensure that at least fifty per cent of the committee has received the appropriate training. Requiring all persons involved in procurement activities to receive ADB procurement training could mitigate this.</p> <p>Overall weaknesses in the procurement process include lack of quality control and performance evaluation. These problems will be mitigated by recruiting international and national consulting services with expertise in commissioning and monitoring the contracting.</p>		
Specific Recommendations, Project Implementation		
Capacity Constraint	Recommended Action	Responsibility and Comment
Evaluation committees lack members with technical or procedural expertise	Evaluation committees will be supported by consultant specialists, PIU technical coordinators and the procurement officer in the preparation and evaluation of technical specifications and tender evaluations for all ADB financed procurement under the project.	ADB Sector Risk Assessment could provide more detailed recommendations.
General Recommendations, Executing Agency Capacity		
Capacity Constraint	Recommended Action	Responsibility and Comment
The legislative and regulatory frameworks for procurement are not always followed in practice, particularly in the selection of evaluation committee members, quality control of delivered goods and services, and procurement monitoring and evaluation	National quality control and procurement audit practices are in the process of being strengthened. Stronger procurement evaluation methods in procurement need to be introduced through establishment of a new regulation on procurement audit.	It is recommended that enforcement of the procurement law be strengthened by imposing sanctions against malfeasance, collusion, fraud, and corruption in procurement.
General Recommendations, Procurement Environment		
Capacity Constraint	Recommended Action	Responsibility and Comment
The absence of a cadre of national professional procurement specialists is a capacity constraint.	A nationwide professionalization program would be vital for enhancing procurement capacity in Mongolia.	It is recommended that ADB's overall country assistance strategy to Mongolia consider this issue.

Topic	Ministry of Health (MOH) - EA	Ulaanbaatar City - IA	NCTM (National Transfusiology Center) - IA	NCCD (National Center for Communicable Diseases) - IA
1. Implementing Agency				
1.1 What is the entity's legal status / registration?	Government department	Government department	Tertiary level health organization	Tertiary level hospital
1.2 Has the entity implemented an externally-financed project in the past (if so, please provide details)?	ADB – HDSP, HSDP2, currently HSDP3, HSDP4	World Bank – Strengthening public expenditure management capacity and human resources management in municipality of Ulaanbaatar. Project Urban Heart - WHO	Global Fund	WHO, Global Fund and MCA-Mongolia
1.3 What are the statutory reporting requirements for the entity?	According to Public Sector Finance and Management Law (PSFML), Budget laws and accounting code. Semiannual and annual financial reports			
1.4 Is the governing body for the project independent?	Oversight is by a multi-agency Project Steering Committee, MOF			
1.5 Is the organizational structure appropriate for the needs of the project?	MOH responsible for health sector policy and management.	Ulaanbaatar city authority responsible for Ulaanbaatar hospital.	NCTM is responsible for production of blood and blood products, transfusion, inspection, and monitoring blood service.	NCCD is responsible for surveillance, diagnosis and treatment, and control of communicable diseases.
2. Funds Flow Arrangements				
2.1 Describe (proposed) project funds flow arrangements, including a chart and explanation of the flow of funds from ADB, government and other financiers.	Funds flow of HSDP, HSDP2, and HSDP3 will be followed ADB funds are transferred to an imprest account held in a bank nominated by the MOF. Government counterpart funds are transferred to a separate bank account. Both accounts managed by the MOH/PIU. No funds are transferred to IA.		Global Fund is supporting training, lab equipment such as kits, refrigerator and freezer.	Funds are followed by regulation of Government of Mongolia and MOH. Global Fund is supported tuberculosis research, diagnosis and treatment. MCA has

Topic	Ministry of Health (MOH) - EA	Ulaanbaatar City - IA	NCTM (National Transfusiology Center) - IA	NCCD (National Center for Communicable Diseases) - IA
				been supporting a vaccination since 2012.
2.2 Are the (proposed) arrangements to transfer the proceeds of the loan (from the government / Finance Ministry) to the entity satisfactory?	MOH satisfied with the previous arrangements for earlier HSDP projects	n/a	n/a	n/a
2.3 What have been the major problems in the past in receipt of funds by the entity?	None	n/a	n/a	n/a
2.4 In which bank will the Imprest Account be opened?	The MOF is responsible for nominating the bank where the Imprest Account will be held. HSDP3 account is currently with the State Bank.		n/a	NCCD account is currently with the State Fund
2.5 Does the (proposed) project implementing unit (PIU) have experience in the management of disbursements from ADB?	Yes – HSDP3, HSDP4		N/A	n/a
2.7 Does the entity have/need a capacity to manage foreign exchange risks?	Responsibility of Ministry of Finance			
2.8 How are the counterpart funds accessed?	Counterpart funds for the project will come from the appropriations of MOH and the State Budget. These must be identified as part of budget preparation process.			
2.9 How are payments made from the counterpart funds?	Counterpart funds will be paid from budget appropriations. Funds are transferred to an MOF nominated bank account and managed by the PIU.			
2.10 If part of the project is implemented by communities or NGOs, does the PIU have the necessary reporting and monitoring features built into its systems to track the use of project proceeds by such agencies?	N/A	N/A	N/A	
2.11 Are the beneficiaries required to contribute to project costs? If beneficiaries have an option to contribute in kind (in the form of	N/A	N/A	N/A	

Topic	Ministry of Health (MOH) - EA	Ulaanbaatar City - IA	NCTM (National Transfusiology Center) - IA	NCCD (National Center for Communicable Diseases) - IA
labor), are proper guidelines formulated to record and value the labor contribution?				
3. Staffing				
3.1 What is the organizational structure of the accounting department? Attach an organization chart.	The organizational structure of the Finance and Investment Division http://www.moh.gov.mn	The organization structure of the Ulaanbaatar City Health Department is attached. http://www.ubhealth.mn/	The organization structure of NCTM is attached. http://www.donor.mn/	The organization structure of the NCCD is attached. http://www.nccd.gov.mn/
3.2 Identify the (proposed) accounts staff, including job title, responsibilities, educational background and professional experience. Attach job descriptions and CVs of key accounting staff.	PIU Administration and Finance Officer job description attached	N/A	N/A	N/A
3.3 Is the project finance and accounting function staffed adequately?	Yes	N/A	N/A	N/A
3.4 Is the finance and accounts staff adequately qualified and experienced?	Yes	N/A	N/A	N/A
3.5 Is the project accounts and finance staff trained in ADB procedures?	Yes	Yes N/A	None.	N/A
3.6 What is the duration of the contract with the finance and accounts staff?	Will be continued throughout the project implementation period	Contracted without specific period	Contracted without specific period	Contracted without specific period
3.7 Indicate key positions not contracted yet, and the estimated date of appointment.	HSDP3, HSDP4 PIU Finance Officer in post	N/A	N/A	N/A
3.8 Does the project have written position descriptions that clearly define duties, responsibilities, lines of supervision, and limits of authority for all of the officers, managers, and staff?	Implementation arrangements will be the same as HSDP4; staff cater for HSDP 5 and will continue after HSDP is concluded.			

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3.9 At what frequency are personnel transferred?	N/A	N/A	N/A	N/A
3.10 What is training policy for the finance and accounting staff?	N/A	N/A	N/A	N/A
4. Accounting Policies and Procedures				
4.1 Does the entity have an accounting system that allows for the proper recording of project financial transactions, including the allocation of expenditures in accordance with the respective components, disbursement categories, and sources of funds? Will the project use the entity accounting system?	The project will use the GOM accounting system which adequately allows for the proper recording of project financial transactions.			
4.2 Are controls in place concerning the preparation and approval of transactions, ensuring that all transactions are correctly made and adequately explained?	Yes			
4.3 Is the chart of accounts adequate to properly account for and report on project activities and disbursement categories?	Chart of Accounts is adequate			
4.4 Are cost allocations to the various funding sources made accurately and in accordance with established agreements?	Yes, expenditures are within plan/budget			
4.5 Are the General Ledger and subsidiary ledgers reconciled and in balance?	Yes, ledgers in balance and reconciled			
4.6 Are all accounting and supporting documents retained on a permanent	Retained for 1-2 years for audit and then archived for 10 years	Yes	Yes	Yes

Topic	Ministry of Health (MOH) - EA	Ulaanbaatar City - IA	NCTM (National Transfusiology Center) - IA	NCCD (National Center for Communicable Diseases) - IA
basis in a defined system that allows authorized users easy access?				
<i>Segregation of Duties</i>				
4.7 Are the following functional responsibilities performed by different units or persons: (i) authorization to execute a transaction; (ii) recording of the transaction; and (iii) custody of assets involved in the transaction?	Yes	No	No	No
4.8 Are the functions of ordering, receiving, accounting for, and paying for goods and services appropriately segregated?	Yes appropriate segregation is in place			
4.9 Are bank reconciliations prepared by someone other than those who make or approve payments?	No			
Budgeting System				
4.10 Do budgets include physical and financial targets?	Yes			
4.11 Are budgets prepared for all significant activities in sufficient detail to provide a meaningful tool with which to monitor subsequent performance?	Yes			
4.12 Are actual expenditures compared to the budget with reasonable frequency, and explanations required for significant variations from the budget?	Yes			
4.13 Are approvals for variations from the budget required in advance or after the fact?	Variation orders approved before payment is made	In advance	In advance	In advance

Topic	Ministry of Health (MOH) - EA	Ulaanbaatar City - IA	NCTM (National Transfusiology Center) - IA	NCCD (National Center for Communicable Diseases) - IA
4.14 Who is responsible for preparation and approval of budgets?	PIU prepares own budget and presents to the MOH for approval prior to final approval by MOF and parliament.	Ulaanbaatar City public expenditure expert	Accountant prepares NTC budget and director approves a prior, and then he presents to the MOH for final approval.	Chief accountant prepares NCCS budget and director general approves a prior, and then he presents final approval by MOH.
4.15 Are procedures in place to plan project activities, collect information from the units in charge of the different components, and prepare the budgets?	Yes	Yes	Yes	Yes
4.16 Are the project plans and budgets of project activities realistic, based on valid assumptions, and developed by knowledgeable individuals?	Yes	Yes	No	No
Payments				
4.17 Do invoice-processing procedures provide for: (i) Copies of purchase orders and receiving reports to be obtained directly from issuing departments? (ii) Comparison of invoice quantities, prices and terms, with those indicated on the purchase order and with records of goods actually received? (iii) Comparison of invoice quantities with those indicated on the receiving reports. (iv) Checking the accuracy of calculations?	Yes	Yes, every order is conducted using accounting standard	Yes	Yes, every order is conducted using accounting standard
4.18 Are all invoices stamped PAID, dated, reviewed and approved, and clearly marked for account code assignment?	Yes			

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4.19 Do controls exist for the preparation of the payroll and are changes to the payroll properly authorized?	Yes			
<i>Policies And Procedures</i>				
4.20 What is the basis of accounting (e.g., cash, accrual)?	Cash accounting for project – Government of Mongolia currently operates a modified accrual accounting system and has mandated full accrual accounting			
4.21 What accounting standards are followed?	As above			
4.22 Does the project have an adequate policies and procedures manual to guide activities and ensure staff accountability?	A financial policy and procedure manual for THSDP is available and will be adapted for use in FHSDP		N/A	N/A
4.23 Is the accounting policy and procedure manual updated for the project activities?	The accounting policy and procedure manual for THSDP can be easily updated for FHSDP as both are grant financed.		N/A	N/A
4.24 Do procedures exist to ensure that only authorized persons can alter or establish a new accounting principle, policy or procedure to be used by the entity?	Government accounting principles, policy and procedure only altered by MOF. No authorized person at MOH.	Yes	Yes	Yes
4.25 Are there written policies and procedures covering all routine financial management and related administrative activities?	Yes	Yes	Yes	Yes
4.26 Do policies and procedures clearly define conflict of interest and related party transactions (real and apparent) and provide safeguards to protect the organization from them?	Not explicit in existing policies	Yes	Yes	Yes
4.27 Are manuals distributed to appropriate personnel?	Yes	Yes	Yes	Yes

Topic	Ministry of Health (MOH) - EA	Ulaanbaatar City - IA	NCTM (National Transfusiology Center) - IA	NCCD (National Center for Communicable Diseases) - IA
<i>Cash and Bank</i>				
4.28 Indicate names and positions of authorized signatories in the bank accounts.	Project signatories will be designated by the State Secretary for Health	Gankhuu Enktuya, Chief of Dept of Finance and Treasury	Ulaankhuu Davaadorj, Director of the NCTM Gunjee Dagvadorj, Chief accountant	Nyamkhuu Dulam, Director of the NCCD, and Altankhuyag Daapii, Chief of Dept of Finance
4.29 Does the organization maintain an adequate, up-to-date cashbook, recording receipts and payments?	Yes	Yes, in accordance with international standard	Yes	Yes, in accordance with international standard
4.30 Do controls exist for the collection, timely deposit and recording of receipts at each collection location?	Yes	Yes	Yes. Chief accountant controls	Yes
4.31 Are bank and cash reconciled on a monthly basis?	Yes	Yes	Yes	Yes
4.32 Are all unusual items on the bank reconciliation reviewed and approved by a responsible official?	Yes	Responsibility of a senior control officer in the Treasury	No	No
4.33 Are all receipts deposited on a timely basis?	Yes	Yes	Yes	Yes
<i>Safeguard over Assets</i>				
4.34 Is there a system of adequate safeguards to protect assets from fraud, waste and abuse?	Annual transaction audits	Annual transaction audits by State Property Committee.		
4.35 Are subsidiary records of fixed assets and stocks kept up to date and reconciled with control accounts?	Yes	Yes	Yes	Yes
4.36 Are there periodic physical inventories of fixed assets and stocks?	Annual inventories	Yes	Yes	Yes
4.37 Are assets sufficiently covered by insurance policies?	Yes			

Topic	Ministry of Health (MOH) - EA	Ulaanbaatar City - IA	NCTM (National Transfusiology Center) - IA	NCCD (National Center for Communicable Diseases) - IA
Other Offices and Implementing Entities				
4.38 Are there any other regional offices or executing entities participating in implementation?	Yes, Ulaanbaatar city authority, district authority, <i>aimag</i> blood banks where relevant			
4.39 Has the project established controls and procedures for flow of funds, financial information, accountability, and audits in relation to the other offices or entities?	Yes		N/A	N/A
4.40 Does information among the different offices/implementing agencies flow in an accurate and timely fashion?	Yes		N/A	N/A
4.41 Are periodic reconciliations performed among the different offices/implementing agencies?	Yes		N/A	N/A
Other				
4.42 Has the project advised employees, beneficiaries and other recipients to whom to report if they suspect fraud, waste or misuse of project resources or property?	Under the Law on Government Audit of Mongolia, any employee who suspects fraud, misuse of assets or waste can approach the National Audit Office			
5. Internal Audit				
5.1 Is there an internal audit department in the entity?	According to the Government rule No.311 (2011) Ministry of MOH has launched the establishment No.98 (2012). Regard with this internal audit department will be established soon.	Yes	No	No
5.2 What are the qualifications and experience of audit department staff?	Internal audit instructions have	Certificated auditors	N/A	N/A

Topic	Ministry of Health (MOH) - EA	Ulaanbaatar City - IA	NCTM (National Transfusiology Center) - IA	NCCD (National Center for Communicable Diseases) - IA
	supposed to be done recently.			
5.3 To whom does the internal auditor report?	To the Ministry of Health	City Council	N/A	N/A
5.4 Will the internal audit department include the project in its work program?	N/A	Yes	N/A	N/A
5.5 Are actions taken on the internal audit findings?	N/A	Yes	N/A	N/A
6. External Audit				
6.1 Is the entity financial statement audited regularly by an independent auditor? Who is the auditor?	National Audit Office audits on an annual basis GASI audits on two years basis			
6.2 Are there any delays in audit of the entity? When are the audit reports issued?	No, audit reports are generally issued on time			
6.3 Is the audit of the entity conducted according to the International Standards on Auditing?	Yes			
6.4 Were there any major accountability issues brought out in the audit report of the past three years?	None	None	None	None
6.5 Will the entity auditor audit the project accounts or will another auditor be appointed to audit the project financial statements?	External auditor expected to be appointed to audit the project accounts			
6.6 Are there any recommendations made by the auditors in prior audit reports or management letters that have not yet been implemented?	None	None	None	None
6.7 Is the project subject to any kind of audit from an independent	On request from the Executing Agency an external audit can be arranged through MOF. Under National Audit Law, government agencies are audited every year by the National Audit Office.			

Topic	Ministry of Health (MOH) - EA	Ulaanbaatar City - IA	NCTM (National Transfusiology Center) - IA	NCCD (National Center for Communicable Diseases) - IA
governmental entity (e.g., the supreme audit institution) in addition to the external audit?				
6.8 Has the project prepared acceptable terms of reference for an annual project audit?	No.			
7. Reporting and Monitoring				
7.1 Are financial statements prepared for the entity? In accordance with which accounting standards?	In accordance with the Public Sector Financial Management Law and Law on Accounting. Integrated Chart of Accounts is consistent with International Accounting Standards			
7.2 Are financial statements prepared for the implementing unit?	Yes			
7.3 What is the frequency of preparation of financial statements? Are the reports prepared in a timely fashion so as to useful to management for decision making?	Monthly budget execution reports prepared in timely fashion			
7.4 Does the reporting system need to be adapted to report on the project components?	No	Yes	Yes	Yes
7.5 Does the reporting system have the capacity to link the financial information with the project's physical progress? If separate systems are used to gather and compile physical data, what controls are in place to reduce the risk that the physical data may not synchronize with the financial data?	No, the present system cannot determine discrepancies between physical and financial data	Yes, the authority has the capacity to link financial data with physical progress but outside of the accounting system	No	No
7.6 Does the project have established financial management reporting responsibilities that specify what reports are to be prepared, what they	Yes – each Division prepares financial reports			

Topic	Ministry of Health (MOH) - EA	Ulaanbaatar City - IA	NCTM (National Transfusiology Center) - IA	NCCD (National Center for Communicable Diseases) - IA
are to contain, and how they are to be used?				
7.7 Are financial management reports used by management?	Yes	Yes	Yes	Yes
7.8 Do the financial reports compare actual expenditures with budgeted and programmed allocations?	Yes			
7.9 Are financial reports prepared directly by the automated accounting system or are they prepared by spreadsheets or some other means?	Yes all financial reports are generated by the automated accounting system.			
8. Information Systems				
8.1 Is the financial management system computerized?	Yes, Government Financial Management Information System introduced in 2005			
8.2 Can the system produce the necessary project financial reports?	Yes		N/A	N/A
8.3 Is the staff adequately trained to maintain the system?	Yes		N/A	N/A
8.4 Does the management organization and processing system safeguard the confidentiality, integrity and availability of the data?	Yes – World Bank undertook compliance check of GFMS as part of PEFMR in 2009.		N/A	N/A

ADB = Asian Development Bank, EA = executing agency, GFMS stands for Government Financial Management Information System, HSDP = Health Sector Development Project, IA = implementing agency, MCA = Millennium Challenge Account, MOF = Ministry of Finance, MOH = Ministry of Health. NCCD = National Center for Communicable Diseases, NTC = National Transfusiology Center, PEFMR = Public Expenditure and Financial Management Review, PIU = project implementation unit, WHO = World Health Organization.

Environmental Management Plan

I. Introduction

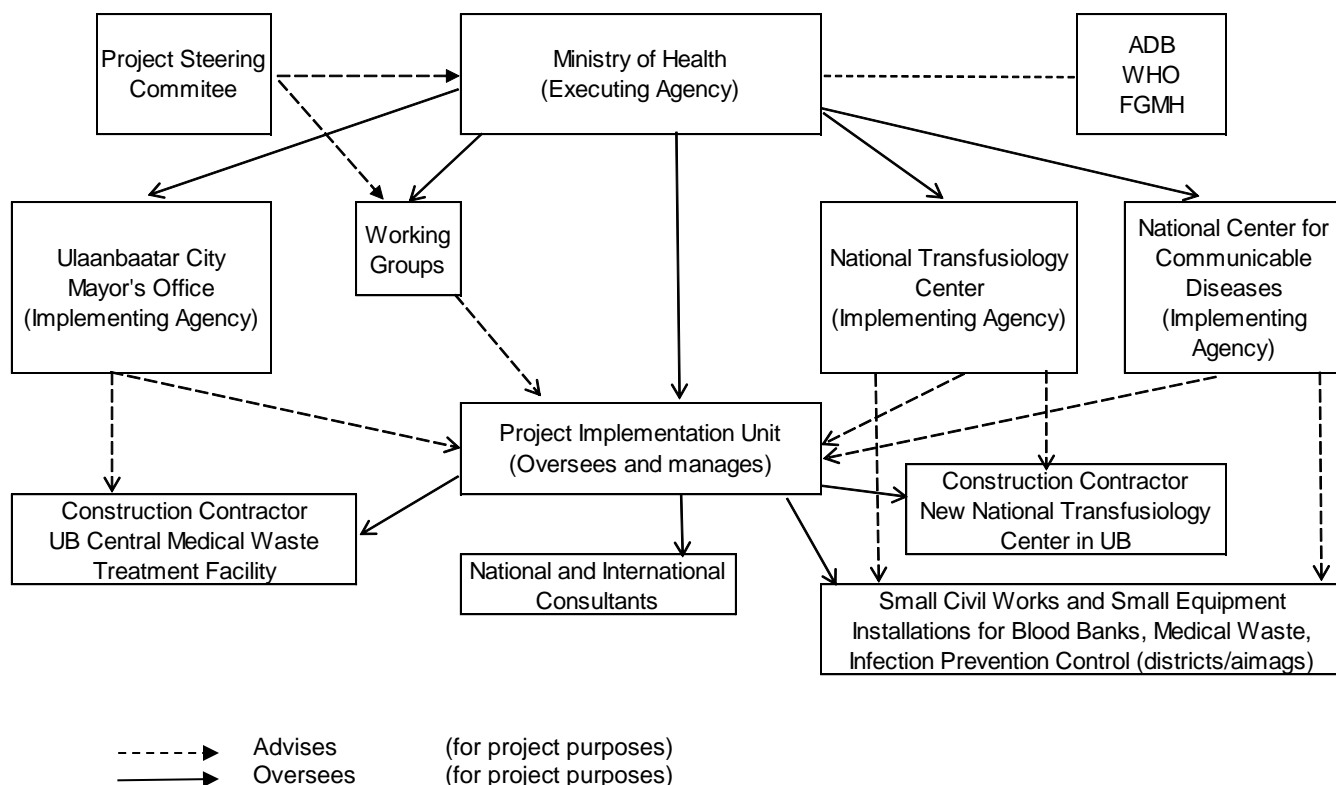
1. This environmental management plan (EMP) is developed for the Fifth Health Sector Development Project (FiHSDP) and defines all potential impacts of the project components and the mitigation and protection measures with the objective of avoiding or reducing these impacts to acceptable levels. The EMP also defines the institutional arrangements and mechanisms, the roles and responsibilities of different institutions, procedures and budgets for implementation of the EMP. The EMP seeks to ensure continuously improving environmental protection activities during preconstruction, construction, and operation in order to prevent, reduce, or mitigate adverse impacts and risks. The EMP draws on the findings of the initial environmental examination (IEE), project preparatory technical assistance, and Asian Development Bank (ADB) review mission discussions and agreements with the relevant government agencies.

2. The EMP will be reviewed and updated at the end of the detailed design in order to be consistent with the final detailed design. The updated EMP will be disclosed on the ADB project website and included in the project administration manual (PAM).

II. Institutional Responsibilities

3. Figure 1 describes the proposed organizational structure.

Figure 1. Project Implementation Organizational Structure



4. The FiHSDP has three major components and nine outputs in the design and monitoring framework as shown in Table 1.

Table 1: Fifth Health Sector Development Project Components and Outputs

Component	No.	Output Description
Component 1: Safe Blood Transfusion	1	The new national transfusiology center is established in Ulaanbaatar and internationally accredited.
	2	<i>Aimag</i> general hospitals and <i>soum</i> health centers transfuse safe blood.
Component 2: Medical Waste Management	3	The central medical waste management facility is expanded and meets international standards.
	4	The national medical waste management system is strengthened and the project hospitals meet the requirements of national standards.
Component 3: Hospital Hygiene and Infection Prevention and Control	5	Microbiology laboratory capacity of project-supported hospitals meet national requirements.
	6	Basic infrastructure and equipment for ensuring infection prevention and control in the project-supported hospitals are available.
	7	An effective surveillance system for hospital-acquired infections is operational.
	8	Awareness, knowledge, and capacity of health authorities, health care workers, and administrative staff on infection prevention control have substantially improved.
	9	Infection prevention and control is ensured by strengthening the quality management system in hospitals and developing capacity of the General Agency for Specialized Inspection.

5. As executing agency, the Ministry of Health (MOH) will be responsible for the overall implementation and compliance with the EMP including the environmental monitoring plan. The MOH has established a project implementation unit (PIU), which will have the overall responsibility delegated by the MOH for supervising the implementation of mitigation measures, coordinating the project level grievance redress mechanism (GRM) and reporting to ADB. The MOH will coordinate internal and external professional sectors including the two implementing agencies to make their contribution to environmental management plan and monitoring arrangements. The MOH will also act as implementing agency for Output 2 (under Component 1) and Output 4 (under Component 2).

6. The PIU will be responsible, on behalf of the executing agency, for the day-to-day management of the project. The responsibility of the PIU of the Fourth Health Sector Development Project will be expanded to include implementation of the FiHSDP. The contract period of the current PIU staff (except for the hospital services development coordinator and the drug safety coordinator) will be extended to the end of the FiHSDP. The PIU will nominate a person in charge to supervise the effective implementation of the EMP.

7. **Project Steering Committee (PSC).** The role of the PSC of the Fourth Health Sector Development Project will be expanded and extended to cover the FiHSDP. It is chaired by the Vice Minister of Health and composed of senior officials from the MOH, the Ministry of Finance (MOF), Ministry of Social Welfare and Labour (MSWL), Ministry of Nature, Environment and Tourism (MNET), the State Social Insurance General Office, the Ulaanbaatar City Mayor's Office, the National Center for Communicable Diseases, the General Agency for Specialized Inspection (GASI), the Health Sciences University of Mongolia, Pharmaceutical Association, Hospital

Association, Mongolian Consumer Association, and the Mongolian Association of Family Doctors. A representative of the National Transfusiology Center (NTC) and the National Center for Communicable Diseases will be added to the current list of members. The PSC will (i) provide strategic direction and orientation, (ii) approve annual budgets and annual activity plans, (iii) review and advise on the implementation progress, and (iv) provide assistance to the working groups on project components.

8. **Implementing agencies.** NTC is the implementing agency for the new NTC building project. They will supervise the establishment of the new NTC, including the establishment of the model maintenance unit and system (Output 1 under Component 1) and will be closely associated to the implementation of project activities related to Output 2. The Ulaanbaatar City Mayor's Office will be the implementing agency for rehabilitating and expanding the Ulaanbaatar central medical waste management facility (Output 3 under Component 2) and will be closely associated to the implementation of project activities related to the district hospitals of Ulaanbaatar City. The National Center for Communicable Diseases will be the implementing agency for strengthening infection prevention and control (Outputs 5, 6, 7, 8, and 9 under Component 3)

9. The implementing agencies will be responsible for the environmental management and implementation of the mitigation measures during project detail design and construction. They will ensure that the EMP is carried out, coordinate monitoring locations with PIU, and respond to any adverse impact beyond those foreseen in the IEE. Oversight is also provided from Ministry and Department of Nature, Environment and Tourism and city/*aimag* Environmental Departments as well as GASI and District Inspection Agencies (DIA). The implementing agencies will also attend to requests from these agencies and ADB regarding the mitigation measures and monitoring program.

10. Construction contractors and the implementing agencies will be responsible for implementing the mitigation measures during construction under supervision of the PIU and GASI/DIA. After project completion, environmental management responsibilities will be handed over to the operators of the project facilities, including the NTC for the new NTC building, and the MOH and their contracted operator for the Ulaanbaatar Central Medical Waste Facility. All small equipment installations will be the responsibility of the respective hospitals.

11. Contractors at the new NTC and the Ulaanbaatar Central Medical Waste Facility will be required to appoint an Environment, Health and Safety Officer (EHSO) responsible for daily monitoring and supervision, and evaluation of mitigation measures' implementation. These contractors will be required to develop an Environmental, Health and Safety Management Plan (EHSMP). To ensure that the contractors comply with the EMP provisions, the PIU with the help and technical support of Loan Implementation Environmental Consultant (LIEC), will prepare and provide the following specification clauses for incorporation into the bidding procedures: (i) a list of environmental management requirements to be budgeted by the bidders in their proposals; (ii) environmental clauses for contractual terms and conditions; and (iii) major items in the IEE and EMP. In addition the PIU will prepare annual environment progress reports and submit them to ADB.

12. For the small equipment installations at district and aimag hospitals for blood banks, medical waste and infection prevention and control, the civil works contractors will be required to assign a person responsible for environment, health and safety for the work.

13. Overall environmental responsibilities are outlined in Table 2.

Table 2: Environmental Responsibilities by Project Phase

Phase	Responsible Agencies	Environmental Responsibilities
Project Preparation	MNET	Conduct General EIA following MON procedures.
	EA, PIU	Request MNET to conduct General EIA, comply with MNET instructions Conduct IEE in accordance with ADB SPS 2009.
	PPTA Consultants	Support EA in preparing request to MNET and IEE .
	ADB	Review and approve IEE, including EMP, Disclose on ADB website.
Detailed Design	Design institutes	Incorporation of environmental mitigation measures in detailed designs, and bidding documents.
	PIU, IA, LIEC	Update EMP based on detailed design, if necessary.
	ADB, MNET	Approve updated EMP, if necessary.
Tendering	MNET	Approve detailed EIA for Central Medical Waste Treatment Facility, including disclosure on MNET website.
	PIU, IA, tendering company, DI	Incorporate mitigation measures and the EMP clauses in tendering documents, civil contracts and contractors' construction management plans.
	LIEC, ADB	Review tendering documents; confirm project's readiness.
	EA, IA	Advise on implementation of mitigation measures.
Construction	Contractors, EHSO	Implement mitigation measures and conduct internal monitoring/supervision. (Small equipment civil works contractors have assigned staff member with EHS responsibilities, not EHSO).
	PIU	Coordinate GRM; supervise EMP implementation; conduct regular site inspections; conduct training; support LIEC in preparing annual environmental progress report.
	Licensed laboratory	Conduct quarterly environmental monitoring, prepare monitoring report.
	LIEC	Advise on the mitigation measures; provide comprehensive technical support to PIU, EA and IA for environmental management; conduct training; conduct annual EMP compliance review; prepare annual environmental progress reports.
	ADB	Conduct review missions; review and approve annual environmental progress reports, including disclosure.
	GASI/DIA	Conduct inspections of all construction projects relative to compliance with Mongolian regulations and standards.
	PIU	Conduct EMP compliance review, instruct IA on environmental management requirements; prepare annual environmental progress report for first year of operation.
Operation	IA	Implementation of mitigation measures as defined in EMP.
	GASI/DIA	Conduct environmental monitoring following approved monitoring plan.
	ADB	Review and approve environmental progress report, disclose on ADB project website.

ADB = Asian Development Bank; DI = design institute; DIA = District Inspection Agency; EA = executing agency; ED = City/*aimag* Environmental Departments; EHSO = environment, health and safety officer; EIA = environmental impact assessment; EMP = environmental management plan; GASI = General Agency of Specialized Inspection; IA = implementing agency; IEE = initial environmental examination; LIEC = loan implementation environmental consultant; MNET = Ministry of Nature, Environment and Tourism; PIU = project implementation unit; PPTA = project preparatory technical assistance.

14. Loan Implementation Environmental Consultant (LIEC). Under the loan implementation consultancy services, one national LIEC will support the project for 2 person-months per year with (i) project preparation, including EMP update; (ii) EMP training; (iii) yearly environmental progress and compliance monitoring; (iv) annual environmental monitoring and progress reporting; (v) identifying environment-related implementation issues and necessary corrective actions to be reflected in an action plan; and (vi) undertaking site visits as required. The LIEC environmental consultant will:

- (i) assess the project components' environmental readiness prior to implementation based on the readiness indicators defined in the EMP;
- (ii) update the EMP including monitoring plan as necessary to revise or incorporate additional environmental mitigation and monitoring measures, budget, institutional arrangements, etc., that may be required based on the detailed design; submit to ADB for approval and disclosure; ensure compliance with the Government of Mongolia's environmental law and regulations, ADB's Safeguard Policy Statement (2009) and Public Communications Policy (2012), and the World Bank Group's Environmental, Health and Safety Guidelines;
- (iii) if required, prepare a new or supplementary IEE report for changes in the project during detailed design (for example if there is a substantial change in alignment) that would result in adverse environmental impacts not within the scope of the approved IEE;
- (iv) support the MOH, PIU, and tendering companies in preparing tender documents; ensure that the bidding documents and civil works contracts contain provisions requiring contractors to comply with the mitigation measures in the EMP and that relevant sections of the project EMP (or updated EMP, if prepared) are incorporated in the bidding and contract documents;
- (v) assist the MOH and PIU to establish a GRM, and provide training for the PIU and GRM access points;
- (vi) Conduct regular EMP compliance monitoring in accordance with the monitoring plan defined in the EMP, review of internal monitoring reports, undertake site visits as required, identify any environment-related implementation issues, propose necessary corrective actions, reflect these in a corrective action plan;
- (vii) assist the MOH and PIU to prepare annual environmental monitoring and progress reports to ADB;
- (viii) provide training to the MOH, PIU, implementing agencies and contractors on environmental laws, regulations and policies, SPS 2009, EMP implementation, and GRM in accordance with the training plan defined in the EMP;
- (ix) assist the MOH and PIU in conducting consultation meetings with relevant stakeholders as required, informing them of imminent construction works, updating them on the latest project development activities, GRM, etc.; and
- (x) consult and coordinate with specialists on medical waste, public health, blood safety, infection prevention and control, and poverty, gender, and social development in conducting the above activities and preparing relevant outputs.

15. **GASI, MNET.** Various governmental functions in Mongolia are shared by ministerial organizations and district organizations, and Ulaanbaatar City is the district related to the FiHSDP. As such, MNET works closely with city and *aimag* Environmental Departments. GASI at the ministerial level works closely with its DIAs.

16. **Licensed laboratory.** A licensed laboratory will be engaged by the MOH to conduct quarterly environmental monitoring during the construction of the new NTC building and the Central Medical Waste Treatment Facility, and during the first year of operation of the Central Medical Waste Treatment Facility, following the approved monitoring plan. The licensed institute will comply with Mongolian Quality Assurance/Control procedures and regulations for sampling and monitoring of environmental media, and assess compliance with Mongolian environmental quality standards for ambient air, water and noise quality.

III. Summary of Potential Impacts and Mitigation Measures

17. Potential environmental issues and impacts during the pre-construction, construction and operation phases, as identified in the IEE as well as corresponding mitigation measures designed to minimize the impacts are summarized in Table 3 and Table 4. The mitigation measures will be incorporated into the tendering documents (where appropriate), construction contracts and operational management plans, and will be undertaken by contractors, the implementing agencies under the supervision of the PIU.

18. The effectiveness of these measures will be evaluated based on the results of the environmental monitoring to determine whether they should be continued or improvements should be made. Improvements need to be confirmed through stipulated environmental management procedures.

19. Many of the mitigation measures will be shouldered by construction contractors in the construction phase while the executing and implementing agencies will ensure that the agreed mitigation measures in the EMP will be included in the construction contracts and will be monitored and implemented. The mitigation measure costs are embedded and secured as part of the design and construction costs of the project. The PIU will ensure that adequate costs for mitigation measures and monitoring activities are allocated accordingly.

20. Table 3 provides a Summary of Potential Environmental Implications for the NTC and Ulaanbaatar Medical Waste Treatment Facility, while Table 4 provides a Summary of Potential Environmental Implications, Small Equipment Installations (Blood, MW, IPC).

Table 3: Summary of Potential Environmental Implications, NTC and Ulaanbaatar Medical Waste Site

Impact factor / Project stage	Potential Impacts and/or Issues	(T) NTC (M) MW UB (B) Both	Mitigation measures	Implementation Agencies	Supervision Responsibilities	Monitoring Indicators
A. Project Preparation and IEE Development						
1. IEE and feasibility stage	IEE preparation	B	Prepare applications for GEIA for National Transfusiology Center, and detailed EIA for Ulaanbaatar Central Medical waste component, and IEE (ENG) for overall project.	PPTA consultant, licensed EIA institute (for detailed EIA)	MNET, ADB	Approval of NTC GEIA and Ulaanbaatar Waste detailed EIA by MNET, ADB approval of IEE
	Verify existing garages have not leaked petroleum products into ground or local groundwater	T	Visual inspections by the PPTA environmental team did not identify any areas of significant leakage of petroleum products	PPTA consultant	MNET, ADB	Approval of NTC GEIA, ADB approval of IEE
	Verify planned vehicle access for workers and users of NTC relative to overall campus, impacts to surrounding land uses and roads	T	Review transportation concepts for the construction and operations of NTC and how increased traffic incorporated into the campus road and parking systems. Verified construction access as west access and south entrance for workers, which will be formulated in detailed plan in design	PPTA consultant	MNET, ADB	Approval of NTC GEIA, ADB approval of IEE
	Verify existing water supply quantity and quality compared to needs of expanded facility	T	Review water supply needs of NTC and other planned facilities and determine if water supply facilities need to be enlarged.	MOH Architect for NTC	MNET, ADB	Approval of NTC GEIA, ADB approval of IEE
	Verify existing wastewater collection capacity on campus compared to needs of expanded facility	T	Review wastewater production rates of NTC and other planned facilities and determine if wastewater collection facilities need to be enlarged.	MOH Architect for NTC	MNET, ADB	Approval of NTC GEIA, ADB approval of IEE
	Verify existing electrical and heating quantity compared to needs of expanded facility	T	Review electrical and heating supply of NTC and other planned facilities and determine if existing facilities need to be enlarged.	MOH Architect for NTC	MNET, ADB	Approval of NTC GEIA, ADB approval of IEE
	Existing central medical waste disposal facility on land owned by Ulaanbaatar	M	Draft legal agreement for MOH to use Ulaanbaatar landfill site for medical waste treatment plant prepared	PPTA consultant	MNET, ADB	Approval of NTC GEIA, Ulaanbaatar Waste detailed EIA, ADB approval of IEE
	Existing incinerator is not technically or environmentally sound and Ulaanbaatar City and MOH require agreement for use of landfill for medical waste disposal	M	Loan covenant for removal of incinerator, safe disposal and loan covenant for MOH and Ulaanbaatar City to put agreement in place for continued use of landfill for disposal of treated medical wastes from the central medical waste treatment facility and pathogenic wastes from city hospitals.	PPTA consultant	MOH, ADB	Loan agreement with specific covenant
	Public consultations	B	Public consultations were conducted for National Transfusiology Center, and for overall waste component, on environmental and public health and safety issues during PPTA and IEE preparation	PPTA consultant	MNET, ADB	Report on public consultations in IEE, ADB approval of IEE

Impact factor / Project stage	Potential Impacts and/or Issues	(T) NTC (M) MW UB (B) Both	Mitigation measures	Implementation Agencies	Supervision Responsibilities	Monitoring Indicators
B. Detailed Design Stage						
	Updating EMP and compliance with EHS	B	Mitigation measures defined in this EMP will be reviewed, updated and incorporated into the detailed design to minimize adverse environmental impacts.	Design Institutes, LIEC, IAs	PIU, ADB	Updated EMP
	Bidding documents and contractors qualifications	B	Include environmental provisions as cited in the EMP of the IEE in the RFPs. Include an environmental section in the TOR for bidders. Include environmental clauses for contractors in reference to the implementation of the EMP and monitoring plan in the construction and supply contracts.	IAs, PIU, LIEC	PIU, EA	Bidding documents
	Verify that legal agreements between Ulaanbaatar and MOH for removal and disposal of incinerator, continued use of central medical waste facility at site, and use of landfill for disposal of treated medical waste and pathogenic wastes are implemented	M	MOH and Ulaanbaatar City complete land lease agreement on the Ulaanbaatar waste site and agreement for use of landfill for medical wastes, by 30 June 13. Incinerator removed by end of 2014 (or before if additional autoclave capacity has been installed). Safe disposal verified by by end of 2014 (or before if additional autoclave capacity has been installed).	IA, PIU, Ulaanbaatar City	EA, ADB	Site inspections and legal agreements
	Potential leaked petroleum products into ground or local groundwater	T	Remediation measures implemented if required if the adjacent garages are removed as part of the project	IA	PIU, EA	Bidding documents
	Provision of adequate water supply facilities in conjunction with all planned facilities on Second Hospital Campus	T	Design improved water distribution network	IA, DI	PIU, EA	Bidding documents
	Provision of adequate wastewater collection facilities in conjunction with all planned facilities on Second Hospital Campus	T	Design improved wastewater collection systems for facility	IA, DI	PIU, EA	Bidding documents
	Provision of adequate electrical and heating facilities in conjunction with all planned facilities on Second Hospital Campus	T	Design improved electrical and heating supply systems for facility	IA, DI	PIU, EA	Bidding documents
	Potential for insufficient water supply quantity or quality from existing well	M	Review water pumping rates, well log, water quality reports and compare with future water needs of expanded facility Design improved well water supply and/or water treatment system for facility	IA, DI	PIU, EA	Bidding documents

Impact factor / Project stage	Potential Impacts and/or Issues	(T) NTC (M) MW UB (B) Both	Mitigation measures	Implementation Agencies	Supervision Responsibilities	Monitoring Indicators
	Capacity /structural condition of the existing septic tank may not be sufficient for future treatment plant	M	Review pumping records and wastewater production rates. Verify that wastewater is treated. Check structural capacity and leak-proof condition of the tank. Verify future wastewater production rates Redesign or replace existing wastewater holding tank as necessary, or add additional capacity	IA, DI	PIU, EA	Bidding documents
	Validation of contracts for hauling and treating wastewater hauled from site	M	Assurance that contracts are in place	IA	PIU, EA	Renewed contracts
	Develop construction phasing plan to ensure medical waste treatment maintained during the construction phase	M	Develop staging and temporary facilities as necessary so that all medical wastes receive proper treatment during construction	IA	PIU, EA	Approved construction phasing plan.
	Provision of construction and operational traffic access and plan for the Second General Hospital Campus	T	Develop detailed construction and operation traffic management and parking plans, in conjunction with all existing and planned facilities on the campus	IA, DI, Second General Hospital	PIU, EA, Ulaanbaatar City	Approved and implemented plans
	Grievance Redress Mechanism	B	Establish a GRM, appoint a GRM coordinator, brief contractors and affected people on GRM procedures before construction begins, for National Transfusiology Center, and for Ulaanbaatar Medical waste component. [combined with small equipment installations]	PIU, LIEC	EA, ADB	Operational GRM
	Environmental Protection Training	B	Provide training to NTC and Ulaanbaatar City and contractors on implementation and supervision of environmental mitigation measures	PIU, LIEC	EA, ADB	Training duration
	Engagement of LIEC	B	Prior to starting construction, engage a Loan Implementation Environmental Consultant (LIEC)	PIU	EA, ADB	LIEC engaged
	Assign environmental control and monitoring responsibilities	B	Prior to construction, assign responsibilities related to control and internal monitoring of new facilities	IA, MOH, Transfusiology administration	PIU, GASI	Responsibilities assigned
	Environmental operation and supervision manual	B	Prior to construction, contractors required to produce and environmental operation and supervision manual including EHS plan for approval	Contractors	PIU, MNET	Approved operation and supervision plans
C. Construction						
1. Soil	Soil erosion, Excavation, spoil disposal	B	Soil erosion management plan to be prepared by the contractor;	Contractor	IA, PIU, LIEC	Visual inspection, monitoring report
	Soil damage, contamination	B	Store chemicals/hazardous products and waste on impermeable surfaces in secure, covered areas; Remove all construction wastes from the site to approved waste disposal sites; Establish emergency preparedness and response plan (Spill Management Plan);	Contractor, Executor of the energy and water supply network connections	IA, DIA, LIEC	Visual inspection, monitoring report

Impact factor / Project stage	Potential Impacts and/or Issues	(T) NTC (M) MW UB (B) Both	Mitigation measures	Implementation Agencies	Supervision Responsibilities	Monitoring Indicators
			Provide spill cleanup measures and equipment at each construction site and training to staff; Water collection basins and sediment traps will be installed in all areas where construction equipment is washed;			
2. Water supply and electricity	Access to clean water and electricity	T	Connect construction sites and new facilities to Ulaanbaatar's water supply and electricity grid, renew contracts	IA	PIU, DIA	Contracts renewed
	Access to clean water and electricity	M	Connect construction sites and new facilities to Ulaanbaatar's electricity grid and existing site well water supply	IA, PIC	PIU, EA	Contract renewed, Bidding documents
3. Surface water	Wastewater from construction site	T	Wastewater from construction site will be discharged to municipal sewer, subject to approval by Ulaanbaatar City.	Contractors, IAs	PIU, DIA, LIEC	Connection to sewer
	Wastewater from construction site	M	Connect wastewater to existing wastewater holding tank; and Early installation of sediment controls at surface water drainage outlets	Contractors, IAs	PIU, DIA, LIEC	On-site drainage control devises
4. Solid waste	Construction and domestic wastes generated on construction sites	B	Confined storage of solid wastes away from sensitive receptors and regularly take to approved disposal facility; Provide appropriate waste storage containers for workers' and construction wastes; Use approved contractor to remove all wastes from sites; Removal of residual materials, wastes and contaminated soils that remain on the ground after construction; Prohibit burning of waste; Carefully handle waste asbestos if it is found during any demolition activities, following the ACM handling and disposal plans	Contractor, IAs	PIU, LIEC, DIA	Visual inspection, Monitoring report <i>Note that ACM has potential for being found in garage demolition at NTC if this becomes part of the project, and demolition of the incinerator building at Ulaanbaatar central medical waste facility for construction of new building</i>
	Deconstruction of old storage garages at Transfusiology building site	T	Deconstruct the garage storage unit and dispose the waste in the Naran Enger landfill.	Contractor, IA	PIU, LIEC	Visual inspection, monitoring report
5. Medical waste	New medical waste cell must be set up in landfill and controlled from public access	M	Per the legal agreement between Ulaanbaatar and MOH, implement plans in landfill to accommodate the treated medical wastes, and pathogenic wastes currently burned in incinerator.	IA, PIC, MOH, DIA, ED	PIU, EA	Visual inspection
	Ensure medical waste treatment at Ulaanbaatar central waste facility during construction	M	Implement construction phasing plans to ensure full medical waste treatment of Ulaanbaatar medical wastes during the construction phase	Contractor, IA	PIU, LIEC	Visual inspection, monitoring report

Impact factor / Project stage	Potential Impacts and/or Issues	(T) NTC (M) MW UB (B) Both	Mitigation measures	Implementation Agencies	Supervision Responsibilities	Monitoring Indicators
	New NTC wastewater and hazardous wastes	T	Install wastewater neutralizer and hazardous waste storage tank per design recommendations	Contractor, IA	PIU, LIEC, DIA	Visual inspection, monitoring report
6. Noise	Noise from construction activities	B	Ensure that construction equipment is in good working order and appropriate noise reduction equipment is installed. Avoid work during weekend; prohibit work in nighttime between 2200 - 0600. Ensure noise levels around the construction sites do not exceed 60dB (daytime) and 40dB (nighttime) Conduct noise monitoring during the construction work per Mongolia standards and regulations	Contractors, IAs, Transfusiology administration, licensed institute	PIU, LIEC, DIA	Citizen complaints, Monitoring report
7. Air quality	Air pollution mainly dust due to use of heavy vehicles	B	Vehicles delivering granular and/or fine materials to the sites must be covered. Materials storage sites must covered or sprayed with water. Extra care will be paid during dry, strong windy days. Water will be sprayed on construction sites once a day in the dry days. Conduct air monitoring during the construction work, per Mongolia standards and regulations	Contractor, licensed institute	PIU, LIEC, DIA	Citizen and worker complaints
8. Health and safety	Health and safety of workers at both sites, Transfusiology visitors, nearby residents	B	Define safety measures at the construction site to protect the workers and the public, including provision of appropriate personal protective equipment (PPE) for workers and arrangement of warning signs to alert the public of potential safety risks in and around the construction sites.	Contractors	PIU, NTC Administration, LIEC, DIA	Number of incidents and complaints
	Asbestos containing materials in demolition activities – where ACM found	B	Develop asbestos containing materials (ACM) control plans including handling, transport and disposal and the required PPE for workers	Contractors	PIU, NTC Administration, LIEC, DIA	Implementation of ACM control plans
9. Ecology	Plant cover destruction and soil damage	B	Restore the soil and plant covers by filling in, leveling, cultivating, fertilizing and vegetating the damaged areas	Contractor	IAs, LIEC	Revegetated area, satisfaction of laboratory and Second General Hospital, Ulaanbaatar landfill
10. GRM	Grievance Redress Mechanism	B	Implement the GRM	PIU	EA, ADB	GRM Reports
D. Operation of New Transfusiology Center						
1. Solid waste	Transfusiology waste management plan	T	An integrated waste management concept should be developed according to the MOH technical guidelines on medical waste handling and waste management will be implemented.	Transfusiology administration	PIU, GAS/DIA, MOH, ED	Inspections and Citizen complaints
	Non-hazardous solid waste	T	Ensure clean waste collection point, regular pick up by municipal solid waste collection services, disposal	Transfusiology administration	District Administration, GAS/DIA, ED	General condition around Transfusiology

Impact factor / Project stage	Potential Impacts and/or Issues	(T) NTC (M) MW UB (B) Both	Mitigation measures	Implementation Agencies	Supervision Responsibilities	Monitoring Indicators
			into Naran Enger Landfill. Manage domestic waste collection site according to the guidelines. Ensure agreement with municipal waste collection services for regular collection and disposal of the waste.			
	Hazardous medical waste storage	T	Liquid wastes will be neutralized according to design recommendations. Hazardous liquid waste shall be stored in on-site storage system and transferred to Ulaanbaatar Medical Waste Treatment Site.	Transfusiology administration	MOH, GASI/DIA, LIEC, ED	Visual inspection
2. Health and Safety	Chemical spills, unhygienic environment, power cuts, illicit wastewater discharge	T	Develop and implement an emergency plan to respond to spills and accidental exposure to hazardous waste. Regularly monitor environmental pollution and hygienic conditions in and around the NTC, define corrective actions if necessary. Ensure adequate neutralization of wastewater prior to discharge into municipal sewer system. Provide alternative power supply for emergency situations. Ensure supply of high quality water.	Transfusiology administration	GASI/DIA, MOH, PIU, ED	Citizen and patient complaints, monitoring report
	Overall environmentally safe and proper management of the facility including the integrated waste system	T	Prepare for accreditation in 2018	Transfusiology administration	GASI/DIA, EA	Successful accreditation of the new NTC
D. Operation of Ulaanbaatar Landfill Medical Waste Facility						
1. Domestic, non-hazardous liquid and solid waste	Management of Pathogenic wastes after removal of incinerator	M	Properly manage the special medical waste cell in Naren Enger Landfill.	Ulaanbaatar MW Facility administration	GASI/DIA, LIEC	Results and conclusions of the inspections
	Wastewater hauling and treatment.	M	Ensure contract for pumping, hauling and treating wastewater is being implemented	Ulaanbaatar MW Facility administration	GASI/DIA, LIEC	Results and conclusions of the inspections
2. Hazardous and chemical solid and liquid waste	Storage of hazardous chemical wastes	M	Monitor the operations of the hazardous waste chemical storage system regularly to ensure safe storage, adequate ventilation, restricted access.	Ulaanbaatar MW Facility administration	GASI/DIA, LIEC	Compliance to regulations on storage of hazardous waste
3. Air quality	Indoor air quality	M	Ensure proper storage and labeling of chemical substances, protect from evaporation. Use chemical substances in strict accordance with the relevant safe operational instructions. Regularly monitor air quality in the workplace.	Ulaanbaatar MW Facility administration	GASI/DIA, LIEC	Results and conclusions of the inspections

Impact factor / Project stage	Potential Impacts and/or Issues	(T) NTC (M) MW UB (B) Both	Mitigation measures	Implementation Agencies	Supervision Responsibilities	Monitoring Indicators
4. Health and Safety	Chemical spills, unhygienic environment, Power cuts, illicit wastewater discharge	M	Develop and implement an emergency plan to respond to spills and accidental exposure to hazardous waste. Regularly monitor environmental pollution and hygienic conditions in and around the facility, define corrective actions if necessary. Ensure adequate disposal of wastewater into storage tanks. Provide alternative power supply for emergency situations. Ensure supply of high quality water.	Ulaanbaatar MW Facility administration, MOH Licensed Facility operator	GASI/DIA, LIEC	Citizen complaints, monitoring reports prepared by MOH licensed operator
Environmental performance of complete facility audited	Potential inadequate treatment of medical wastes or health and safety problems	M	Formal technical and environmental audit conducted on complete Ulaanbaatar central medical waste facility in 2017	Contracted environmental assessment firm	PIU, LIEC	Environmental assessment results are positive without problems

ADB = Asian Development Bank; DI = design institute; DIA = District Inspection Agency; EA = executing agency; ED = City/*aimag* Environmental Departments; EHSO = environment, health and safety officer; EIA = environmental impact assessment; EMP = environmental management plan; GASI = General Agency of Specialized Inspection; IA = implementing agency; IEE = initial environmental examination; LIEC = loan implementation environmental consultant; MNET = Ministry of Nature, Environment and Tourism; PIU = project implementation unit; PPTA = project preparatory technical assistance.

Table 4: Summary of Potential Environmental Implications, Small Equipment Installations (Blood, MW, IPC)

Impact factor/ Project stage	Potential Impacts and/or Issues	(BB) Blood Bank (M) Small MW (I) IPC (A) All	Mitigation measures	Implementation Agency	Supervision Agency	Monitoring Indicators
A. Project Preparation and IEE Development						
1. IEE and feasibility stage	IEE preparation	A	Incorporate summary of field visit checklists and generic EMP into the HSDP5 IEE for small equipment installations	PPTA consultant	MNET, ADB	Approval of ADB IEE
	Due diligence on Small Equipment Installations	A	The due diligence of the Small Equipment Installations conducted by the PPTA consultants (based on field visits) confirmed that the operation of the Small Equipment Installations is not likely to have significant environmental impacts on the surrounding environment.	PPTA consultant	MNET, ADB	Approval of ADB IEE
B. Detailed Design						
	Updating EMP and compliance with EHS	A	Mitigation measures defined in this EMP will be reviewed, updated and incorporated into the detailed design to minimize adverse environmental impacts.	Design Institutes, LIEC, IAs	PIU, ADB	Updated EMP
		M	Ensure that installations are designed in full compliance with all MOH orders, especially Orders 158 and 179. Properly locate new small structures on existing hospital sites to minimize impacts to hospital during construction and operations	IA, DI	PIU, EA	Bidding documents
	Bidding documents and contractors qualifications	A	Include environmental provisions as cited in the EMP of the IEE in the Requests for Proposals. Include an environmental section in the TOR for bidders. Include environmental clauses for contractors in reference to the implementation of the EMP and monitoring plan in the construction and supply contracts.	IAs, DI	PIU, EA	Bidding documents
	Grievance Redress Mechanism	A	Establish a GRM, appoint a GRM coordinator, brief contractors and affected people on GRM procedures before construction begins. [Combined with National Hospital Center, and Ulaanbaatar Medical waste component	PIU	EA, ADB	Operational GRM
	Assign environmental control and monitoring responsibilities	A	Prior to construction, assign responsibilities related to control and internal monitoring of new facilities	IAs, PIU	PIU, GASI	Responsibilities assigned
C. Construction						
1. Soil	Soil erosion, Excavation, spoil disposal	M	Soil erosion management plan to be prepared by the contractor	Contractor	IA, PIU, GASI	Visual inspection, monitoring report

Impact factor/ Project stage	Potential Impacts and/or Issues	(BB) Blood Bank (M) Small MW (I) IPC (A) All	Mitigation measures	Implementation Agency	Supervision Agency	Monitoring Indicators
	Soil damage, contamination	M	Remove all construction wastes from the site to approved waste disposal sites; Provide spill cleanup measures and equipment at each construction site and training to staff;	Contractor, Executor of the energy and water supply network connections	IA, GASI, LIEC	Visual inspection, monitoring report
2. Water supply and electricity	Access to clean water and electricity	A	Connect construction sites and new facilities to local water supply and electricity grid, renew contracts	IAs	PIU, GASI	Contracts renewed
3. Surface water	Wastewater from construction site	M	Wastewater from construction site will be discharged to municipal sewer	EHS Staff, IAs	PIU, GASI, LIEC	Connection to sewer
4. Solid waste	Construction and domestic wastes generated on construction sites	M	Construction wastes and materials (e.g. fuel) will be properly contained during construction. Wastes will be removed from site and taken to approved disposal facilities;	EHS Staff, IAs	PIU, GASI, LIEC	On-site drainage control devises
	Potential toxic materials exposed during construction (i.e., asbestos)	A	Carefully handle waste asbestos if it is found during any demolition activities, following the ACM handling and disposal plans	EHS Staff, IAs	PIU, LIEC, GASI	Visual inspection, Monitoring report
5. Noise	Noise from construction activities	A	Ensure that construction equipment is in good working order and appropriate noise reduction equipment is installed. Ensure noise levels around the construction sites do not exceed 60dB (daytime) and 40dB (nighttime)	EHS Staff, IAs, hospital administration	PIU, LIEC, GASI	Citizen complaints, Monitoring report
6. Air quality	Air pollution mainly dust due to use of heavy vehicles (b)	A	Vehicles delivering granular and/or fine materials to the sites must be covered. Materials storage sites must covered or sprayed with water. Ensure good ventilation in buildings being rehabilitated or constructed.	EHS Staff	PIU, LIEC, GASI	Citizen and worker complaints
7. Health and safety	Health and safety of workers, Hospital visitors, nearby residents	A	Define safety measures at the construction site to protect the workers and the public, including provision of appropriate personal protective equipment (PPE) for workers and arrangement of warning signs to alert the public of potential safety risks in and around the construction sites.	Contractors, EHS Staff	PIU, Hospital Administration, LIEC, GASI	Number of incidents and complaints
C. Operation of Small Blood Banks, IPC						
1. Solid waste	Hospital waste management plan	BB, I	An integrated waste management concept will be developed according to the technical guidelines on medical waste handling and waste management will be implemented.	Hospital administration	PIU, GASI, LIEC, MOH	Inspection Reports Citizen complaints
	Non-hazardous solid waste	BB, I	Ensure clean waste collection point, regular pick up by municipal solid waste collection services, disposal into Ulaanbaatar or <i>aimag</i> landfill.	Hospital administration	GASI	General condition around hospital, Inspection Reports

Impact factor/ Project stage	Potential Impacts and/or Issues	(BB) Blood Bank (M) Small MW (I) IPC (A) All	Mitigation measures	Implementation Agency	Supervision Agency	Monitoring Indicators
			Improve the storage room of common waste under the required regulations			
	Hazardous medical waste storage	BB, I	Hazardous waste including hospital waste, special waste and highly infectious waste will be stored according to the defined hospital waste management plan cited above.	Hospital administration, PIU, IA	MOH, LIEC, GASI	Inspection Reports
D. Operation of Small Medical Waste Facilities						
1. Domestic, non-hazardous liquid and solid waste	Production of solid domestic waste produced daily.	M	Ensure clean organic waste collection point, regular pick up by service company, disposal into <i>aimag</i> landfill.	Hospital administration	GASI, ED	Inspection Reports
	Wastewater: production and treatment	M	Domestic wastewater will be discharged to the municipal sewer and treated at the city/ <i>aimag</i> wastewater treatment system	Hospital administration	GASI, ED	Inspection Reports
2. Hazardous and chemical solid and liquid waste	Storage of hazardous chemical wastes	M	Order 179 compliant and meeting NEMA requirements.	Hospital administration	GASI, ED	Inspection Reports
3. Air quality	Indoor air quality	M	Ensure proper storage and labeling of chemical substances, protect from evaporation. Use chemical substances in strict accordance with the relevant safe operational instructions.	Hospital administration	GASI, ED	Inspection Reports
4. Health and Safety	Chemical spills, unhygienic environment, Power cuts, illicit wastewater discharge	M	Develop and implement an emergency plan to respond to spills and accidental exposure to hazardous waste.	Hospital administration, assigned storage system operator	GASI, ED	Inspection Reports

ADB = Asian Development Bank; DI = design institute; DIA = District Inspection Agency; EA = executing agency; ED = City/*aimag* Environmental Departments; EHS Staff = environment, health and safety designated person; EIA = environmental impact assessment; EMP = environmental management plan; GASI = General Agency of Specialized Inspection; IA = implementing agency; IEE = initial environmental examination; LIEC = loan implementation environmental consultant; MNET = Ministry of Nature, Environment and Tourism; PIU = project implementation unit; PPTA = project preparatory technical assistance.

IV. Environmental Monitoring Plan

21. The monitoring program in the EMP will serve as the template for assessing the potential adverse impacts imposed on the surrounding environment by the relevant projects, identifying the ways and measures to be implemented for the purpose of reducing and eliminating these impacts, and providing the budget estimates of the required monitoring expenses. There will be significantly more monitoring of the new NTC building and the Ulaanbaatar central medical waste treatment facility than for the small equipment installations.

22. All relevant project-specific impacts to the environmental components by the implementation of the relevant FIHSDP component projects will be monitored. The parameters are shown for each of the environmental components, the frequency of monitoring, location of sampling and measurement points, form of reporting the results of the analyses, and the summary into the operational reports as described in the EMP. The plan also identifies the methods for identifying those parameters, the schedule for conducting relevant monitoring-studies, the location of the monitoring points, the standards and norms and normative to be followed in the monitoring-study, etc.

23. Environmental monitoring reports will be combined with project progress reports comprised of the implementation of environmental laws, regulations and policies, mitigation measures taken, training and capability building. Results of environmental monitoring will be included in the annual environmental reports prepared for ADB by the PIU.

24. Project monitoring is the key link to check the implementation progress with regard to the achievement of environmental protection measures. Monitoring will be keyed to the project affected area map shown previously for the new NTC building site. The program considers the scope of monitoring and supervision, environmental media, monitoring parameters, time and frequency, implementing and supervising agencies. Environmental monitoring will follow the methodology provided in the national standard methods for monitoring pollutants. Other associated standards are national environmental quality standards and pollutant discharge/emission standards.

25. The monitoring and inspection plan includes the following:

- (i) **Periodic EMP Compliance Monitoring:** Compliance to the project's environmental safeguard requirements, as defined in the EMP and loan covenants, will be undertaken prior to construction (to confirm the project's readiness) and annually during construction by the loan implementation environmental consultant, with the support of the PIU;
- (ii) **Legal Compliance Inspections:** Compliance to construction standards legislation will be undertaken by the GASI/DIA for the governments at National and City/*aimag* levels in Mongolia, as appropriate.
- (iii) **Daily Construction Inspections:** The environmental, health and safety officers are responsible for the daily ongoing conformance of the projects with the EMP.
- (iv) **Periodic technical monitoring:** Licensed laboratory institutes will conduct quarterly noise and air quality monitoring of the NTC and Ulaanbaatar medical waste facility.

26. The environmental monitoring plan is shown in Table 5, referring to the two main component projects of New National Transfusiology Center and Ulaanbaatar Central Medical Waste Treatment Facility. Monitoring of small equipment installations is shown in Table 6.

Table 5: Environmental Monitoring and Inspection Plan – NTC and Ulaanbaatar Medical Waste Treatment Facility

Environmental Media/Issue	Location, Parameters, Monitoring Technique	Responsibility and Frequency
Pre-Construction Phase		
Project readiness	<ul style="list-style-type: none"> • Method: Review of PIU's and contractor's readiness to implement the NTC and Ulaanbaatar Medical Waste Treatment Facility based on assessment of Project Readiness Indicators • Parameters: Readiness indicators (Table 7) 	LIEC – once before construction
Construction Phase		
Soil erosion and contamination	<ul style="list-style-type: none"> • Method, Location: Visual inspection of the NTC and Ulaanbaatar Medical Waste Treatment Facility • Parameters: (i) adequacy of soil erosion prevention measures; (ii) adequacy of soil contamination prevention techniques; (iii) evidence of excessive soil erosion or soil contamination 	EHSO - daily PIU – bi-weekly LIEC - yearly
Solid and liquid waste management	<ul style="list-style-type: none"> • Method, Location: Visual inspection of the NTC and Ulaanbaatar Medical Waste Treatment Facility • Parameters: (i) adequacy of solid and liquid waste management, storage and containment system; (ii) presence of solid waste dumps, waste fires 	EHSO - daily PIU – bi-weekly LIEC - yearly
Construction site health and safety	<ul style="list-style-type: none"> • Method, Location: Visual inspection and interviews with construction workers and contractors at the NTC and Ulaanbaatar Medical Waste Treatment Facility • Parameters: (i) adherence to the approved Environmental, Health and Safety Management Plan (EHSMP); (ii) performance of the EHSO; (iii) worker complaints and concerns. 	EHSO - daily PIU – bi-weekly LIEC - yearly
Community health and safety	<ul style="list-style-type: none"> • Method, Location: Visual inspection of the NTC and Ulaanbaatar Medical Waste Treatment Facility, informal interviews with nearby residents • Parameters: (i) adherence to approved temporary traffic management plan; (ii) adequacy of construction site signage and fencing; (iii) adequacy of temporary noise mitigation measures; (iv) accidents involving public and workers; (v) emergencies and responses; (vi) public complaints about noise, air pollution, construction site safety, localized flooding, etc. 	PIU – bi-weekly LIEC - yearly
Induced traffic disturbance	<ul style="list-style-type: none"> • Method, Location: Visual inspection at NTC and Ulaanbaatar Medical Waste Treatment Facility, informal interviews with affected people, consultation of local traffic police • Parameters: (i) adequacy of, and compliance with, the approved temporary traffic control and operation plan; (ii) satisfaction of affected people. 	PIU – bi-weekly LIEC - yearly
Air quality	<ul style="list-style-type: none"> • Method, Location: Air quality monitoring, on pavements adjacent to NTC and Ulaanbaatar Medical Waste Treatment Facility site boundaries, inside boundaries of sensitive receptors (schools, hospitals) • Parameters: Dust, PM₁₀, PM_{2.5} 	Licensed laboratory – quarterly
Noise	<ul style="list-style-type: none"> • Method, Location: Noise monitoring, on pavements adjacent to NTC and Ulaanbaatar Medical Waste Treatment Facility, inside sensitive receptors (schools, hospitals) • Parameters: dB(A) 	Licensed laboratory – quarterly

Environmental Media/Issue	Location, Parameters, Monitoring Technique	Responsibility and Frequency
EMP Compliance Monitoring	<ul style="list-style-type: none"> • Method, Location: Review of project's adherence with EMP and loan covenants • Parameters: EMP and loan covenants 	PIU, LIEC - yearly
Construction Completion and Operation Phase		
Post-construction site inspection	<ul style="list-style-type: none"> • Method, Location: Visual inspection, post-construction environmental condition assessment at NTC and Ulaanbaatar Medical Waste Treatment Facility. • Parameters: Post Construction Environmental Condition 	GASI/DIA – twice: two/one week before completion, once after completion
Vegetation	<ul style="list-style-type: none"> • Method, Location: Visual inspection of NTC and Ulaanbaatar Medical Waste Treatment Facility revegetation • Parameters: Tree and grass growth and health 	ED – 4 times during first year of operation
Interview with affected people	<ul style="list-style-type: none"> • Method, Location: Interview with potentially affected people adjacent to NTC and Ulaanbaatar Medical Waste Treatment Facility; • Parameters: (i) Overall satisfaction with project outputs; (ii) concerns and complaints. 	Transfusiology Administration and Ulaanbaatar City – twice during first year of operation

DIA = District Inspection Agency; ED = City/*aimag* Environmental Departments; EHSO = environment, health and safety officer; EMP = environmental management plan; GASI = General Agency of Specialized Inspection; LIEC = loan implementation environmental consultant; NTC = National Transfusiology Center, PIU = project implementation unit. Source: Project preparatory technical assistance Team.

Table 6: Environmental Monitoring and Inspection Plan – Small Equipment Blood Banks, Medical Waste, IPC

Environmental Media/Issue	Location, Parameters, Monitoring Technique	Responsibility and Frequency
Pre-Construction Phase		
Project readiness	<ul style="list-style-type: none"> • Method: Review of PIU's and contractor's readiness to implement the small equipment installations based on assessment of Project Readiness Indicators • Parameters: Readiness indicators (Table 7) 	LIEC – once before construction
Construction Phase		
Soil erosion and contamination (MW Only)	<ul style="list-style-type: none"> • Method, Location: Visual inspection of all small equipment installations • Parameters: (i) adequacy of soil erosion prevention measures; (ii) adequacy of soil contamination prevention techniques; (iii) evidence of excessive soil erosion or soil contamination 	EHS Staff – daily, PIU once during construction
Solid and liquid waste management	<ul style="list-style-type: none"> • Method, Location: Visual inspection of all small equipment installations • Parameters: (i) adequacy of solid and liquid waste management, storage and containment system; (ii) presence of solid waste dumps, waste fires 	EHS Staff – daily, PIU - once during construction
Vegetation (MW Only)	<ul style="list-style-type: none"> • Method, Location: Visual inspection of all small equipment installations • Parameters: adequacy of vegetation protection measures; evidence of damage to vegetation 	EHS Staff – daily, PIU - once during construction
Construction site health and safety	<ul style="list-style-type: none"> • Method, Location: Visual inspection and interviews with construction workers and contractors at small equipment installations 	EHS Staff - daily

Environmental Media/Issue	Location, Parameters, Monitoring Technique	Responsibility and Frequency
	<ul style="list-style-type: none"> Parameters: (i) adherence to the approved Environmental, Health and Safety procedures (ii) worker complaints and concerns. 	
Air quality (MW only)	<ul style="list-style-type: none"> Method, Location: Visual dust observance, near small medical waste equipment installations inside hospital sites Parameters: Visual 	EHS Staff - daily
Noise	<ul style="list-style-type: none"> Method, Location: Noise monitoring, near small medical waste equipment installations inside hospital sites Parameters: Walk by only 	EHS Staff - daily
EMP Compliance Monitoring	<ul style="list-style-type: none"> Method, Location: Review of project's adherence with EMP and loan covenants Parameters: EMP and loan covenants 	PIU, LIEC – once during construction
Construction Completion and Operation Phase		
Post-construction site inspection	<ul style="list-style-type: none"> Method, Location: Visual inspection, post-construction environmental condition assessment at small medical waste equipment installations. Parameters: Visual results 	PIU – once after completion

Source: Project preparatory technical assistance Team.

EHS Staff = environment, health and safety designated person; LIEC = loan implementation environmental consultant; PIU = project implementation unit.

27. **Assessment of project readiness.** Before construction, the LIEC will assess the project's readiness in terms of environmental management based on a set of indicators (Table 7), and report it to ADB and the PIU. This assessment will demonstrate that environmental commitments are being carried out and environmental management systems are in place before construction starts, or suggest corrective actions to ensure that all requirements are met.

Table 7: Project Readiness Assessment Indicators

Indicator	Criteria	Assessment	
Approved Detailed EIA for Ulaanbaatar Central Medical Waste Facility	<ul style="list-style-type: none"> The Detailed EIA is approved by MNET and the ADB IEE is validated to conform with the detailed Mongolian EIA 	Yes	No
EMP update	<ul style="list-style-type: none"> The EMP was updated after detailed design, and approved by ADB and MNET (if relevant) 	Yes	No
Compliance with loan covenants	<ul style="list-style-type: none"> The borrower complies with loan covenants related to project design and environmental management planning 	Yes	No
	<ul style="list-style-type: none"> Agreement has been executed between MOH and Ulaanbaatar City for disposal of treated medical waste and pathogenic wastes in Naren Enger Landfill 	Yes	No
Public involvement effectiveness	<ul style="list-style-type: none"> Meaningful consultation completed 	Yes	No
	<ul style="list-style-type: none"> GRM established with entry points 	Yes	No
Environmental Supervision in place	<ul style="list-style-type: none"> LIEC is in place 	Yes	No
Bidding documents and contracts with environmental safeguards	<ul style="list-style-type: none"> Bidding documents and contracts incorporating the environmental activities and safeguards listed as loan assurances 	Yes	No
	<ul style="list-style-type: none"> Bidding documents and contracts incorporating the impact mitigation and environmental management provisions of the EMP 	Yes	No

Indicator	Criteria	Assessment	
Contractor readiness	• Environmental, Health and Safety Management Plan established for construction sites	Yes	No
	• Environment, Health and Safety Officers appointed	Yes	No
	• Assessment of potential disruption to utilities services conducted	Yes	No
	• Stakeholder interviews to confirm issues if services are disrupted	Yes	No
EMP financial support	• The required funds have been set aside to support the EMP implementation according to the financial plan.	Yes	No

ADB = Asian Development Bank; EIA = environmental impact assessment; EMP = environmental management plan; GRM = grievance redress mechanism; IEE = initial environmental examination; LIEC = loan implementation environmental consultant; MNET = Ministry of Nature, Environment and Tourism; MOH = Ministry of Health.

Source: Project preparatory technical assistance Team.

28. **Environmental monitoring and supervision cost estimates.** Costs for environmental monitoring and supervision include salaries and consultancy fees for the PIU, the LIEC and the EHSO, as well as costs for the environmental monitoring performed by a licensed laboratory. The salary costs of the PIU and LIEC will be covered by the MOH; the salaries of the EHSO will be covered by the Contractors and budgeted in their contracts. Air, water and noise monitoring costs will amount to approximately \$2,000 over 3 years. These expenses will be covered by the implementing agencies and included in the overall project budget.

V. Institutional Strengthening and Training

29. The capacity of the PIU, implementing agencies and contractors' staff responsible for EMP implementation and supervision will be strengthened. All parties involved in implementing and supervising the EMP must have an understanding of the goals, methods, and practices of project environmental management. The project will address the lack of capacities and expertise in environmental management through (i) institutional strengthening, and (ii) training.

30. **Institutional strengthening.** The capacities of the MOH and PIU to coordinate environmental management will be strengthened through hiring at least one environmental specialist and one social/gender specialist. The appointment of one national environmental consultant under the loan implementation consultancy will further strengthen the MOH's and PIU's environmental management and supervision capacities, and ensure compliance with ADB's Safeguard Policy Statement (2009). The outsourcing of periodic monitoring of air and noise to a licensed laboratory will ensure adherence to QA/QC standards. The obligation of contractors to appoint Environment, Health and Safety Officers (EHSO) and to establish Environmental, Health and Safety Management Plans (EHSMP) for construction sites will help ensuring community and occupational health and safety. The proposed institutional strengthening plan is presented in Table 8. It is believed that these institutional strengthening measures, combined with clearly assigned responsibilities and roles, will allow adequate environmental management.

Table 8: Proposed Institutional Strengthening Measures

Target Agencies	Institutional strengthening measures	Timing
Executing and, implementing agencies, Project implementation unit	<ul style="list-style-type: none"> Defining institutional arrangements for environmental management, monitoring, and supervision Defining positions and responsibilities 	During project preparation

Target Agencies	Institutional strengthening measures	Timing
Licensed laboratory	<ul style="list-style-type: none"> Recruiting and contracting licensed laboratory for environmental monitoring before, during and after construction 	Prior to project implementation
LIEC	<ul style="list-style-type: none"> Recruiting and contracting one national LIEC for environmental management, environmental training, EMP compliance review, and reporting 	Prior to project implementation
Contractors, Environment, Health and Safety Officers	<ul style="list-style-type: none"> Hire Environment, Health and Safety Officers for each construction site. Develop Environmental, Health and Safety Management Plans 	Prior to project implementation

EMP = environmental management plan, LIEC = loan implementation environmental consultant.

31. **Training.** The MOH, PIU, implementing agencies, and contractors will receive training in environmental management, environmental monitoring and supervision, mitigation planning, emergency response, public consultation and grievance redress mechanism, occupational and community health and safety, and other environmental management techniques. The training topics, methods, and estimated costs for FiHSDP are described in Table 9. Training will be facilitated by the LIEC with support of other experts under the loan implementation consultant services.

32. Training format will include workshops. In particular, due to the prevalence of construction projects in the city, on-site training will be used extensively, giving staff firsthand experience on how to identify and correct adverse environmental impacts.

Table 9: Training Program

Training Topic	Targeted Agencies	Timing	Duration, Costs
EMP Implementation: Roles and Responsibilities, Monitoring, Supervision and Reporting Procedures Grievance Redress Mechanism: Roles and Responsibilities, Procedures Occupational and Community Health and Safety, Emergency Preparedness and Response	IAs, PIU, POs, Contractors, EHSO	Prior to and during project implementation	2 x 1 day, \$2,000
Pollution Control and Environmental Monitoring, Inspection and Reporting, Public Consultation Contractor Engagement and Management, including EMP Enforcement	IAs, PIU, EHSO, Contractors, DIAs	Prior to and during project implementation	2x 1 day, \$2,000

DIA = District Inspection Agency EHSO = environment, health and safety officer; IA = implementing agency, PIU = project implementation unit.

33. In addition, the project will provide significant international and national expert inputs who all will have specific technical and environmental training and institutional strengthening components in their work. Expert inputs and related training and institutional strengthening activities are presented in Table 13 and 18 of the IEE report. It basically includes 37 person-months of international experts on (i) Public Health IPC; (ii) Biomedical Engineering; (iii) Blood Bank Quality Management; (iv) Medical Waste (including treatment, steam treatment, and recycling); (v) Central Sterilization Service Department (CSSD) in-country training; and (vi) Microbiology SOP/Lab Compliance; and 92 person-months national experts on (i) Public Health IPC; (ii) Biomedical Engineering; (iii) Blood Bank Quality Management; (iv) Voluntary Non-Remunerated Blood Donation; (v) Medical Waste Management; (vi) CSSD in-country training; (vii) Microbiology SOP/Lab Compliance; (viii) Biomedical Engineering Validation; and (ix) Rational Blood Use.

34. These activities are included in the overall project scope and budget, and not repeated here to avoid double-counting.

VI. Environmental Reporting

35. **Project progress reports.** The MOH will provide ADB with (i) quarterly progress reports in a format consistent with ADB's project performance reporting 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, and (d) updated implementation plan for next 12 months; and (iii) a project completion report within 6 months of physical completion of the project. To ensure projects continue to be both viable and sustainable, project accounts and the executing agency audited financial statements, together with the associated auditor's report, should be adequately reviewed.

36. The quarterly project progress reports will also include a summary of EMP implementation status, problems encountered during construction and operation, and the relevant corrective actions undertaken.

37. **Quarterly environmental monitoring reports.** The licensed laboratory will prepare concise reports presenting the results of the monitoring of air and noise, with a short assessment of compliance/non-compliance with Mongolian ambient environmental air and noise standards.

38. **Yearly environmental progress reports.** To ensure proper and timely implementation of the EMP and adherence to the agreed environmental covenants, the PIU shall submit to ADB yearly environmental progress reports, based on quarterly progress reports of the PIU and the quarterly reports of the licensed laboratory. The LIEC will support the PIU in developing the annual reports. The report should confirm the project's compliance with the EMP, local legislation such as EIA requirements, and identify any environment related implementation issues and necessary corrective actions, and reflect these in a corrective action plan. The performance of the contractors will also be reported on with respect to environmental protection and impact mitigation. The operation and performance of the project GRM, environmental institutional strengthening and training will also be included in the quarterly environmental performance report. Table 10 summarizes the reporting requirements.

Table 10: Reporting Requirements

Report	Frequency	Purpose	From	To
Contractor's Progress Report	Monthly	Satisfy EMP	Contractor	PIU
Project Progress Reports	Quarterly	General project progress, including summary of EMP implementation	PIU	ADB
Environmental Monitoring Report	Quarterly	Monitoring of air and noise	Licensed laboratory	PIU
Annual Environmental Progress Report	Annually	Adherence to Environmental Covenants and EMP	PIU , LIEC	ADB

ADB = Asian Development Bank, EMP = environmental management plan, LIEC = loan implementation environmental consultant, PIU = project implementation unit.

VII. Mechanisms for Feedback and Adjustment

39. Based on environmental monitoring and reporting systems in place, the PIU shall assess whether further mitigation measures are required as corrective action, or improvement in environmental management practices are required. The effectiveness of mitigation measures and monitoring plans will be evaluated by a feedback reporting system. The PIU will play a critical role in the feedback and adjustment mechanism. If the PIU identifies a substantial deviation from the EMP, or if any changes are made to the project scope that may cause significant adverse environmental impacts or increase the number of affected people, then the PIU shall immediately consult ADB to identify EMP adjustment requirements.

VIII. Cost Estimates for Environmental Management

40. The total project cost for FiHSDP is approximately \$38.38 million. However, the project cost for the two main structural components of the IEE (NTC and the Ulaanbaatar central medical waste treatment facility) are only about one quarter of this cost, as the majority is for small equipment installations in many city and aimag hospitals.

41. The environmental protection related cost is \$159,500 or 0.42% of the total estimated project budget. The major environmental protection costs include institutional strengthening, environmental management training, protection and mitigation measures during construction and operation, and awareness raising. Excluded from the costs estimates are infrastructure costs related to environment and public health which are included in the project direct costs as well as many other project activities which aim at ensuring sustainable and safe O&M of equipment, including training, institutional strengthening (i.e., GASI), supervision etc., but these are included in overall project costs, not the EMP.

42. Before construction, the PIU and implementing agency will develop detailed responsibilities and requirements for contractors and will provide detailed cost estimates of mitigation measures and environmental monitoring in the construction contracts. The PIU will also detail the responsibilities of PIU and prepare its work schedule. Environmental considerations will be incorporated into the procurement to ensure environmentally responsive procurement. Cost estimates for mitigation measures, environmental monitoring, public consultations, and capacity building are summarized in

43. Table 11. These cost estimates do not include the remuneration costs for technical experts on training on equipment operation and maintenance, health and safety, and emergency preparedness and response, which are covered elsewhere in the project budget.

Table 11: Cost Estimates for the Environmental Management Plan

Item	NTC Component (\$)	Ulaanbaatar Medical Waste Component (\$)	Small Equipment Installations (BB,MW,IPC) (\$)	Total (\$)	Source of Funds
Construction Phase					
Environmental mitigation - Erosion control - Spoil management - Dust control - Noise control - Solid waste control	8,000	8,000	8,000	24,000	Contractors

Item	NTC Component (\$)	Ulaanbaatar Medical Waste Component (\$)	Small Equipment Installations (BB,MW,IPC) (\$)	Total (\$)	Source of Funds
- Site safety - Work camp hygiene - Traffic management					
Environment, Health and Safety Officer	10,000	10,000		20,000	Contractors
Site revegetation	5,000	2,000	2,000	9,000	Contractors
Internal environmental monitoring	1,000	1,000		2,000	MOH
Loan Implementation Environmental Consultant	16,000	16,000	16,000	48,000	MOH
Training	1,000	1,000	2,000	4,000	MOH
Public consultations, GRM coordination	2,000	2,000	2,000	6,000	MOH
Operation Phase					
Operational inspections	2,000	2,000	2,000	6,000	MOH
Preparing NTC for accreditation	Included in project costs				
Medical waste environmental assessment and auditing firm		40,500		40,500	MOH
	Included in project costs				
Total Fifth Health Sector Development Project				159,500	
% of Overall Project Cost				0.42%	

GRM = grievance redress mechanism, MOH = Ministry of Health, NTC = National Transfusiology Center.

Notes:

1. Small equipment installations over 21 small medical waste and 43 small blood and infection prevention and control installations in the project. The medical waste installations involve small structures inside hospital sites, while other small equipment installations are inside existing hospitals with minimal civil works.
2. A significant portion of the budget involves small equipment installations in existing hospitals, and this requires little environmental management. The NTC and Ulaanbaatar Central Medical Waste facility comprise about a quarter of the project costs and the Environmental Management costs for these two components are about 1.7% of project cost.

Source: Project preparatory technical assistance Team.

44. During project implementation, the budget will be adjusted based on actual requirements. Contractors will bear the costs of all mitigation measures during construction, which will be included in the tender and contract documents. The MOH will bear the costs related to mitigation measures during operation. Costs related to environmental supervision during construction and operation will be borne by the PIU and the operators, respectively. Costs for capacity building will be borne by the project as a whole.

45. The cost for re-vegetation of the NTC site and Ulaanbaatar medical waste site was developed and included in the mitigation cost table above. This may be more appropriate for the capital cost of the project as a recommendation of the IEE, but it is carried as a mitigation cost for now.