ADAPTATION FUND

CONCEPT NOTE PROPOSAL FOR SINGLE COUNTRY

PART I: PROJECT/PROGRAMME INFORMATION

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Title of Project/Programme:	Transitioning to healthy and climate-resilient sanitation in ger areas of Ulaanbaatar, Mongolia
Country:	Mongolia
Thematic Focal Area:	Climate-resilient sanitation
Type of Implementing Entity:	Multilateral Implementing Entity
Implementing Entity:	World Health Organization
Executing Entities:	World Health Organization Country Office in Mongolia
Amount of Financing Requested:	13,645,664 (in U.S Dollars Equivalent)

Project Formulation Grant Request (available to NIEs only): Yes ☒ No ☐

Amount of Requested financing for PFG: 89,165 (in U.S Dollars Equivalent)

Letter of Endorsement (LOE) signed: Yes ☒ No ☐

NOTE: LOEs should be signed by the Designated Authority (DA). The signatory DA must be on file with the Adaptation Fund. To find the DA currently on file check this page: https://www.adaptation-fund.org/apply-funding/designated-authorities

Stage of Submission:

☒ This concept has been submitted before

☐ This is the first submission ever of the concept proposal

In case of a resubmission, please indicate the last submission date: 9/2/2026

Please note that concept note documents should not exceed 50 pages, including annexes.

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Project/Programme Background and Context:

Provide brief information on the problem the proposed project/programme is aiming to solve. Outline the economic social, development and environmental context in which the project would operate

1. Mongolia is undergoing rapid urbanization and socio-demographic change, resulting in nearly half of the country's population now residing in Ulaanbaatar, with approximately **44% of the population (equivalent to about 204,670 households or 715,121 people)** living in peri-urban ger areas characterized by inadequate infrastructure and basic services (NSO, 2023). These areas lack access to centralized water supply and sewerage systems, and households rely predominantly on on-site sanitation systems, primarily simple pit latrines that are often poorly designed, unsealed, and inadequately maintained.
2. A major challenge in **ger areas** is the **widespread use of these unimproved pit latrines**, which allow leakage of untreated excreta into surrounding soil and groundwater. Hygienic inspections indicate that approximately **80% of pit latrines do not meet national standards**, largely due to the absence of proper sealing and structural deficiencies, resulting in significant environmental contamination and increased risk of infectious diseases (General Agency for Specialized Inspection, 2021)
3. These sanitation systems are highly vulnerable to Mongolia's extreme climatic conditions. During winter, when temperatures frequently fall below –30°C, wastewater and fecal sludge in pits, tanks, and pipes freeze, causing blockages, reduced functionality, and structural damage. When thawing occurs, accumulated waste may infiltrate surrounding soil and groundwater, further exacerbating environmental contamination and public health risks (World Bank, 2019).
4. Climate-related shocks have further exposed the fragility of sanitation systems. During the **flash floods of July and August 2023**, large areas of Ulaanbaatar were affected, including flood-prone zones inhabited by approximately 288,738 people. **Floodwaters caused the overflow of an estimated 20,000 pit latrines**, leading to widespread environmental contamination and significantly increasing the risk of infectious disease transmission. The floods also resulted in loss of lives and damage to hundreds of homes, highlighting the severe vulnerability of existing sanitation systems to extreme climate events (NEMA; WHO WPRO Situation Report, 2023) .
5. The environmental and public health consequences of inadequate sanitation are severe. Studies indicate that soil contamination is widespread in ger areas, with up to 88% of samples containing pathogenic organisms such as E. coli, Proteus, and other bacteria, and approximately 85% of pit latrines classified as having moderate to high environmental impact due to poor siting, high density, and proximity to groundwater sources (Oyunbat et al., 2022; NCPH, 2018) . These conditions directly contribute to increased transmission of faecal-oral diseases, particularly diarrhoeal diseases among children under five, which are significantly higher among ger area populations compared to apartment residents (NCPH, 2018; WHO, 2023).
6. Sanitation challenges extend beyond households and directly affect the resilience of the health system. **Many primary health care (PHC) facilities, particularly in provinces,** lack adequate WASH infrastructure and continue to **rely on pit latrines** due to limited access to water supply and technical constraints related to cold climates. A national assessment found that 58% of PHC facilities lacked basic sanitation services, undermining infection prevention and control (IPC), increasing the risk of healthcare-associated infections, and limiting the quality and continuity of care (MOH, NCPH, WHO, 2024) .
7. Furthermore, a climate vulnerability assessment of 79 health care facilities revealed low preparedness across key dimensions, with scores of approximately 2.4 for infrastructure and human resources, 2.0 for WASH systems, and an overall preparedness score of 2.15. These findings indicate significant gaps in the ability of health facilities to withstand and respond to climate-related risks, particularly during extreme weather events and disease outbreaks (MOH; GGGI, 2024).
8. The socio-economic context further compounds these challenges. Poverty is disproportionately concentrated in ger areas, where approximately 38% of residents are poor, and households face multiple vulnerabilities including inadequate housing, limited access to basic services, and high exposure to environmental risks (World Bank; NSO, 2025). These conditions contribute to increased disease burden, reduced productivity, and higher health expenditures, reinforcing cycles of vulnerability.

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9. At the same time, Mongolia is among the countries most vulnerable to climate change, experiencing rising temperatures, declining precipitation, and increasing frequency of extreme events such as floods, droughts, and severe cold. These climate trends significantly increase sanitation system failures and public health risks. In addition, poorly managed sanitation systems contribute to environmental degradation and greenhouse gas emissions, reinforcing the cycle of climate vulnerability and health risks (Fourth National Communication, 2024; UNICEF, 2022).
10. In this context, the proposed project aims to address critical gaps at the intersection of climate change, sanitation, and public health by focusing on two priority target groups: (i) vulnerable households in ger areas of Ulaanbaatar, where unsafe and climate-vulnerable sanitation systems drive environmental contamination and health risks, and (ii) primary health care facilities in selected provinces, where inadequate WASH services undermine infection prevention, service quality, and resilience to climate shocks. By addressing both community-level and health system-level vulnerabilities, the project responds to urgent needs to improve climate resilience, reduce environmental contamination, strengthen health system capacity, and protect vulnerable populations from climate-sensitive health risks.



Figure 1. Ger area (peri-urban) of Ulaanbaatar city, Mongolia (©WHO CO Mongolia, 2023)

Project/Programme Objectives:

List the main objectives of the project/programme.

11. **Goal:** The proposed project aims to protect and improve the health and well-being of vulnerable populations by promoting the adoption and scaling of innovation-driven, healthy and climate-resilient sanitation systems and services for households in the ger areas of Ulaanbaatar and for primary health care facilities in selected vulnerable provinces. The project will strengthen community engagement, behaviour change, and institutional capacity to ensure sustainable, equitable, and climate-resilient sanitation solutions that reduce environmental contamination**,** prevent climate-sensitive diseases, and enhance the resilience of both communities and the health system.

Objectives

a) Objective 1: Strengthen institutional capacity and evidence base to identify, assess, and address climate-related sanitation and public health risks, and to guide selection of climate-resilient sanitation technologies
b) Objective 2: Identify, test, and validate technically feasible, context-appropriate, and scalable climate-

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resilient sanitation technologies through innovation and pilot implementation

c) Objective 3: Scale up climate-resilient sanitation systems and services for households and primary health care facilities, supported by strengthened governance, policies, monitoring, and sustainability mechanisms and document and disseminate evidence and lessons learned on climate-resilient sanitation

12. To achieve its goals and objectives, the project will adopt a multisectoral and comprehensive approach that addresses interlinked challenges across health, environment, climate change, infrastructure development, and socio-economic conditions, while ensuring strong government ownership, leadership, and long-term sustainability. A central element of this approach will be the establishment of an innovation hub, designed as a multidisciplinary platform comprising national and international technical experts. This hub will guide the design, piloting, validation, and scale-up of innovative, evidence-based sanitation solutions applicable to both household and health care facility settings.
13. These solutions will be climate-resilient, environmentally sustainable, locally appropriate, scalable, and affordable, responding to the specific needs of low-income households in ger areas as well as the technical and operational requirements of primary health care (PHC) facilities in provinces. For households, the project will prioritize context-appropriate sanitation systems that are resilient to extreme cold and flooding, ensuring safe containment and management of waste and reducing environmental contamination. For PHC facilities, the project will support the development and implementation of similar type of adapted sanitation systems that strengthen infection prevention and control (IPC), ensure service continuity during climate shocks, and improve overall resilience of health service delivery.
14. The project will draw on both national and international evidence and best practices, incorporating stakeholder-recommended options and technical guidance. This includes solutions outlined in the World Bank's Improving Sanitation in Cold Regions: Catalog of Technical Options for Household-Level Sanitation (World Bank, 2019), such as cold-resilient sanitation technologies, including improved on-site systems and adapted septic solutions, as well as WHO sanitation and health guidelines and technical fact sheets. These resources will be adapted to Mongolia's specific climatic, environmental, and socio-economic context to ensure that selected technologies are technically feasible, socially acceptable, and sustainable under local conditions.
15. By integrating innovation, technical validation, community engagement, and system-level strengthening, the project will ensure that sanitation solutions are not only effective at the pilot stage but can be sustainably scaled up across ger areas and health care facilities, contributing to long-term improvements in public health outcomes and climate resilience.

Project/Programme Components and Financing:

Table 1. Project components

Project/Programme Components	Expected Concrete Outputs	Expected Outcomes	Amount (US$)
Component 1: Systematic analysis of climate related risks in the sanitation chain and technical requirements of the climate resilient and environmentally sustainable sanitation technology and systems adaptable in vulnerable peri-urban/ger area/province	**Output 1.1: Comprehensive assessment of climate risks, sanitation systems, and public health impacts in ger areas of Ulaanbaatar and selected provinces**	Outcome 1.1. Improved institutional capacity to identify and address climate-related sanitation and public health risks, and to select climate-resilient sanitation technologies based on validated technical, cost-effectiveness, scalability, and public health criteria.	200,000 USD

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Component 2: Innovation, technology assessment, and feasibility studies of climate-resilient sanitation solution**s**	**Output 2.1: Climate- resilient sanitation solutions identified and validated through technological testing/assessment/ feasibility studies**	Outcome 2.1. Availability of technically feasible, context-appropriate, and scalable climate-resilient sanitation solutions for cold- and flood-prone ger areas, with improved stakeholder capacity to identify and appraise suitable options	1,000,000 USD
Component 3: Piloting and scaling proven climate-resilient sanitation solutions for households and PHC facilities, including development of enabling standards, guidance, monitoring, and a sustainability roadmap to support wider roll-out.	**Component 3a. Pilot Output 3.1: Climate-resilient sanitation technologies piloted in selected households and PHC facilities**	Outcome 3.1. In pilot areas, increased household and health system resilience to climate shocks through year-round access to safe, functional, and climate-resilient sanitation systems, supported by improved operation, maintenance, and self-monitoring practices	.400,000 USD
	Component 3b. Implementation of proven solutions Output 3.2: Access to climate-resilient sanitation scaled up in households and health care facilities	Outcome 3.2. Improved access to safe, climate-resilient sanitation for households and primary health care facility users, reduced exposure to faecal contamination and climate-sensitive diseases, and strengthened health system resilience through improved infection prevention and control, operation, monitoring, and surveillance	10,088,000 USD
	Component 3c. Transition towards further scale-up Output 3.3: Sustainability roadmap and scale-up framework developed and adopted	Outcome 3.3. Strengthened national and subnational capacity to adopt, finance, and scale innovation-driven climate-resilient sanitation systems, supported by an endorsed sustainability roadmap and long-term monitoring framework.	400,000 USD
Component 4: Technical assessment, documentation and dissemination of lessons learned	**Output 4.1: Lessons learned documented and disseminated nationally**	Outcome 4.1. Evidence and lessons learned on climate-resilient sanitation are documented, disseminated, and used to inform future investments, programme design, and replication.	300,000 USD
Total Component Cost			**12,388,000**
6. Project/Programme Execution cost			188,649
7. Total Project/Programme Cost			12,576,649
8. Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable)			1,069,015
Amount of Financing Requested			**13,645,664**

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Justification:

16. ***Why is WHO best positioned to perform those execution services instead of another national or subnational entity.***
17. The World Health Organization (WHO), as an accredited Multilateral Implementing Entity, will implement the project with its Headquarters (WHO/HQ) as the Implementing Entity (IE), with execution carried out by its Country Office in Mongolia.
18. WHO plays a pivotal role in global sanitation efforts by setting health-based guidelines, developing technical tools, supporting countries in policy and capacity building, and promoting safe, climate-resilient sanitation systems to protect public health. WHO's work is especially critical in reducing disease transmission and improving health outcomes in vulnerable populations.
19. WHO will drive a comprehensive approach, encompassing the complex interplay of health, environment and climate change, underpinned by technical evidence, research and engineering standards as well as strategies for social protection and community adaptation. As such, a multi-sectoral and multi-agency undertaking will be facilitated by WHO. WHO's presence in country and its access to technical and operational expertise from the global and regional level and its technical leadership across a wide range of national institutional partners will ensure that technical, operational and political changes will not interrupt the delivery of the project. WHO is well-positioned to support programme implementation through its technical expertise and its capacity to adapt international experience to national contexts. Its multisectoral, policy-coherent approach ensures government ownership, leadership, and long-term sustainability.

20. Given WHO's critical role in global sanitation and its three-tiered structure (Headquarters, Regional Office, and Country Office), technical assistance and execution service will be provided by WHO staff and its network of global and technical experts with support of the project implementation unit and in collaboration with national partners. A Project Implementation Unit (PIU) will be established to support project execution. It is proposed that the project implementation unit will be staffed by project national officers and an international expert specialized in public health, environment, and sanitation engineering.

Table 2. Projected Calendar:

Milestones	Expected Dates
Start of Project/Programme Implementation	Q2/2027
Mid-term Review (if planned)	Q2/2029
Project/Programme Closing	Q2/2031
Terminal Evaluation	Q4/2031

PART II: PROJECT / PROGRAMME JUSTIFICATION

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A. Describe the project/programme components, particularly focusing on the concrete adaptation activities of the project, and how these activities contribute to climate resilience. For the case of a programme, show how the combination of individual projects will contribute to the overall increase in resilience. Alignment with Adaptation Fund strategic objectives and outcome areas

The proposed project directly supports the **Adaptation Fund Strategic Objective** of *reducing vulnerability and increasing the adaptive capacity of communities, institutions, and ecosystems to climate change*. Specifically, the project contributes to the following Adaptation Fund outcome areas:

- **Outcome 1: Reduced exposure to climate-related hazards and threats**
- **Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses.**
- **Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes.**
- **Outcome 4: Increased adaptive capacity within relevant development sector services and infrastructure assets**
- **Outcome 7: Improved policies and regulations that promote and enforce resilience measures**
- **Outcome 8: Innovation for effective, long-term adaptation to climate change accelerated, encouraged, and enabled to scale up**

21. To achieve these outcomes, the project adopts a phased and adaptive approach that combines strategic, technical, and operational elements to ensure end-to-end resilience. The approach progresses through four stages: (1) systematic assessment of sanitation systems, climate risks, and technical requirements; (2) technology assessment and innovation; (3) piloting and scaled implementation of proven climate-resilient sanitation solutions for households and health care facilities; and (4) evaluation and dissemination of lessons learned.
22. The project follows a comprehensive definition of climate-resilient sanitation, encompassing both sewered and non-sewered systems capable of withstanding and adapting to extreme climate shocks—such as severe cold, flash flooding, and heatwaves—as well as chronic stresses including water scarcity and poverty. These systems are designed to safely contain and manage faecal sludge across the sanitation chain, prevent environmental contamination, reduce greenhouse gas emissions, and minimize public health risks, including outbreaks of diarrhoeal diseases among vulnerable populations.
23. Within this framework, the project adopts an integrated, multisectoral approach addressing the interconnected challenges of health, environment, climate change, infrastructure, and socio-economic conditions. A key feature is the establishment of an innovation hub—a multi-stakeholder platform that will guide the generation of evidence and knowledge, as well as the design, validation, and scaling of climate-resilient sanitation solutions. These solutions will be environmentally sustainable, locally appropriate, scalable, and affordable for low-income households in ger areas, drawing on both national experience and international best practices, including cold-resilient sanitation options identified in global guidance.
24. The project will assess, pilot, and scale a range of technologies, including improved sealed on-site systems, climate-adapted septic tank solutions, container-based and modular sanitation approaches, and associated fecal sludge management systems. These technologies will be selected and validated through feasibility studies to ensure that they are technically viable under extreme climatic conditions, socially acceptable, affordable, and scalable within national systems.
25. Finally, the project integrates these solutions across multiple levels—from enabling policy and regulatory environments to local implementation—while incorporating behaviour change, financing mechanisms, and monitoring systems. Through this comprehensive approach, the project ensures strong alignment with Adaptation Fund priorities and delivers sustained, system-wide adaptation benefits through multisectoral collaboration and community engagement.
26. The table below describes the project details including how each component activities contribute to climate resilience.

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Table 3. Project details with activities, outputs, outcomes, and indicators

Project / Programme Component	Output	All activities	Stakeholders	Beneficiaries & targets	Outputs & targets	Outcomes & indicators	Contribution to climate resilience
Component 1: Systematic analysis of climate-related risks to sanitation and technical requirements of climate-resilient and environmentally sustainable sanitation technologies and systems adaptable in vulnerable peri-urban/ger areas/province	**Output 1.1: Comprehensive assessment of climate risks, sanitation systems, and public health impacts in ger areas of Ulaanbaatar and selected provinces**	- Conduct comprehensive assessment of climate risks to sanitation, including calculation of sanitation-related emissions and technical requirements for climate-resilient and environmentally sustainable sanitation systems - Review existing sanitation technologies and failure modes under cold-climate and extreme weather conditions using a community participatory approach - Assess sanitation-related public health risks, including environmental contamination, unsafe sanitation-related health impacts, and IPC gaps in primary health care facilities - Facilitate workshops and technical meetings involving national	Ministry of Health; Ministry of Urban Development, Construction and Housing; UB City Governor's Office; National Emergency Management Agency; National Agency for Meteorology and Environmental Monitoring; National Center for Public Health; National Center for Communicable Diseases; National Agency for Meteorology and Environmental Monitoring, Regulatory Committee for Urban Water Supply and Sewerage System, Center for Construction Development, Mongolian University of Medical Science, Mongolian	- **520 direct beneficiaries plus 10 PHC facilities engaged under the component 1,** comprising: • 120 professionals and technical/government staff (60 women, 60 men) • 400 community members consulted through 100 households (200 women, 200 men) - 10 primary health care facilities in selected provinces assessed	- 1 integrated assessment report completed, validated and endorsed by end of Year 1 - 1 set of technical, cost-effectiveness, scalability and public health criteria for climate-resilient sanitation technologies developed and adopted - ≥2 validation workshops conducted	Outcome 1.1.Improved institutional capacity to identify and address climate-related sanitation and public health risks, and to select climate-resilient sanitation technologies based on validated technical, cost-effectiveness, scalability, and public health criteria. - Indicator 1.1.1: Assessment findings referenced in ≥2 national/local planning documents by project end -Indicator1.1 2: Priority sanitation-related public health risks identified, assessed, and incorporated into the validated assessment report	Builds evidence base for climate risk-informed sanitation planning and empowers communities to identify risks

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		and international experts, government staff, authorities, and communities to validate the assessment proposal and report - Develop technical, cost-effectiveness, scalability and public health criteria for selecting climate-resilient sanitation technologies	University for Science and Technology and NGO for Public Utility, Department of UB City, Family Health Centers community representatives; WHO (technical and project lead)			and technology selection criteria by end of Year 1. - Indicator 1.1.3: Technical and public health criteria formally adopted for sanitation technology selection	
Component 2: Innovation, technology assessment, and feasibility of climate-resilient sanitation solutions	**Output 2.1: Climate- resilient sanitation solutions identified and validated through technological testing/assessment/feasibility studies**	- Establish innovation hub as multidisciplinary platform with national and international experts to guide technology design, installation, and operation - Design locally applicable climate-resilient sanitation technologies aligned with climatic trends and community needs - Conduct technical, economic and social feasibility studies for selected options - Facilitate discussions and training with community representatives, sector staff, national and local authorities, private	Government ministries; engineers; technical and scientific experts; private companies; NGOs; academia; community representatives (including women); WHO and international experts	- **280 direct participants (160 women and 120 men) engaged under the component**, comprising: • 80 professionals/technical experts (40 women, 40 men) • 200 community participants (120 women, 80 men)	- 1 innovation hub established and operational - ≥3 sanitation technology options assessed - ≥3 technical, economic and social feasibility studies completed - ≥6 training, consultation sessions conducted - Technologies validated by mid-Year 2	2.1.Availability of technically feasible, context-appropriate, and scalable climate-resilient sanitation solutions for cold- and flood-prone areas, with improved stakeholder capacity to identify and appraise suitable options - Indicator 2.1.1: ≥3 sanitation technologies validated as feasible - Indicator 2.1.2: ≥3 technologies approved for piloting by mid-Year 2	Ensures technology suitability for extreme cold and flooding conditions

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		sector and NGOs - Demonstrate selected climate-resilient sanitation solutions					
Component 3a: Pilot implementation of climate-resilient sanitation solutions	**Output 3.1: Climate-resilient sanitation technologies piloted in selected households and PHC facilities**	- Develop technical and operational tools for piloting sanitation technologies - Pilot climate-resilient sanitation technologies in selected households in two pilot communities and two PHC facilities - Monitor functionality and performance of systems under seasonal conditions - Conduct training and behaviour change activities for households on operation and maintenance and self-monitoring	Local government; engineers; households; community members; WHO	**Component 3-** Across Components 3a, 3b, and 3c, the project will directly benefit approximately **4,740 individuals**, including: **4,000 household beneficiaries in Ulaanbaatar** (≈2,000 women/girls and 2,000 men/boys) + **240 individuals in pilot households** (≈120 women/girls and 120 men/boys) + **At least 500 trained professionals and community members**, with **≥275 women** In addition, approximately **50 primary health care facilities** in selected provinces (500,000 PHC catchment beneficiaries- 250,000 women/girls and 250,000 men/boys) will benefit directly through improved sanitation services, strengthening health system resilience. Indirectly, the project is expected to benefit up to **715,121 ger area residents** (≈357,560 women/girls and 357,561 men/boys) through improved	- Technical and operational tools for piloting developed - 60 pilot sanitation systems at households installed and operational -Two pilot sanitation systems at PHC facilities installed and operational - ≥240 household members trained on operation, maintenance and self-monitoring	Outcome 3.1.In pilot areas, increased household and health system resilience to climate shocks through year-round access to safe, functional, and climate-resilient sanitation systems, supported by improved operation, maintenance, and self-monitoring practices - Indicator 3.1.1: ≥90% of pilot households and 100% PHC facilities have functional sanitation systems year-round - Indicator 3.1.2: ≥80% of households and 100% of PHC facilities apply correct operation and maintenance practices	Demonstrates real-world performance of climate-resilient sanitation systems

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				policies, systems, and scale-up of climate-resilient sanitation solutions. Component 3 a: - **240 direct household beneficiaries** in 60 pilot households (**120 women/girls, 120 men/boys)** - 240 household members trained on operation, maintenance and self-monitoring (at least 120 women, 120 men)			
Component 3b: Implementation and scale-up of proven climate-resilient sanitation technologies and systems	**Output 3.2: Access to climate-resilient sanitation scaled up in households and health care facilities**	- Install proven sanitation technologies in ~1,000 households and ~50 primary health care facilities - Develop national guidance and standards for climate-resilient sanitation systems and services - Conduct large-scale capacity-building for health workers, inspectors, engineers, social workers, and communities - Conduct behaviour change interventions for households during and after installation - Train professionals on monitoring	National, provincial and district/khoroo authorities; health care facilities; community organizations; engineers; WHO; Private entities and NGOs	Component 3b: **4,000 direct household beneficiaries (2,000 women/girls and 2,000 men/boys) in Ulaanbaatar, 50 primary health care facilities upgraded in provinces (500,000 PHC catchment beneficiaries – 250,000 men/boys and 250,000 women/girls), and at least 500 trained professionals (275 women and 225 men)**	- 1,000 households and 50 primary health care facilities equipped with climate-resilient sanitation systems - ≥3 national standards/guidelines developed or updated - Monitoring and climate-informed surveillance systems operational - ≥500 professionals trained - ≥80% sustained use of installed sanitation systems	Outcome 3.2. Improved access to safe, climate-resilient sanitation for households and primary health care facility users, reduced exposure to faecal contamination and climate-sensitive diseases, and strengthened health system resilience through improved infection prevention and control, operation, monitoring, and surveillance - Indicator 3.2.1: 1,000 households with access to climate-resilient	Expands access to climate-resilient sanitation while strengthening health systems

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		soil/water quality and health indicators - Train health workers on surveillance of sanitation-related diseases				sanitation by project end - Indicator 3.2.2: 50 primary health care facilities with climate-resilient sanitation by project end - Indicator 3.2.3: ≥20% reduction in diarrhoeal disease incidence in target areas/facilities from baseline to endline - Indicator 3.2.4: Routine monitoring and climate-informed surveillance integrated and functioning	
Component 3c: Transition towards scale-up and sustainability of climate-resilient sanitation systems	**Output 3.3: Sustainability roadmap and scale-up framework developed and adopted**	- Integrate sanitation solutions into national and provincial policies - Develop a costed sustainability and scale-up roadmap - Establish monitoring and evaluation mechanisms for long-term tracking	Government policy makers and institutions; sectoral agencies; WHO; NGOs, private entities	C**omponent 3 c: 100 policy and sector stakeholders directly engaged** in roadmap and policy integration processes (**50 women, 50 men)** - Indirect beneficiaries: up to **715,121 ger area residents** through strengthened enabling environment and future scale-up (approximately **357,560 women/girls**	- 1 costed national sustainability and scale-up roadmap developed and endorsed before project completion - ≥2 national policies or national/provincial/district plans integrate climate-resilient sanitation - 1 monitoring and evaluation framework for long-term tracking established	Outcome 3.3. Strengthened national and subnational capacity to adopt, finance, and scale innovation-driven climate-resilient sanitation systems, supported by an endorsed sustainability roadmap and long-term monitoring	Enables long-term sustainability and national replication

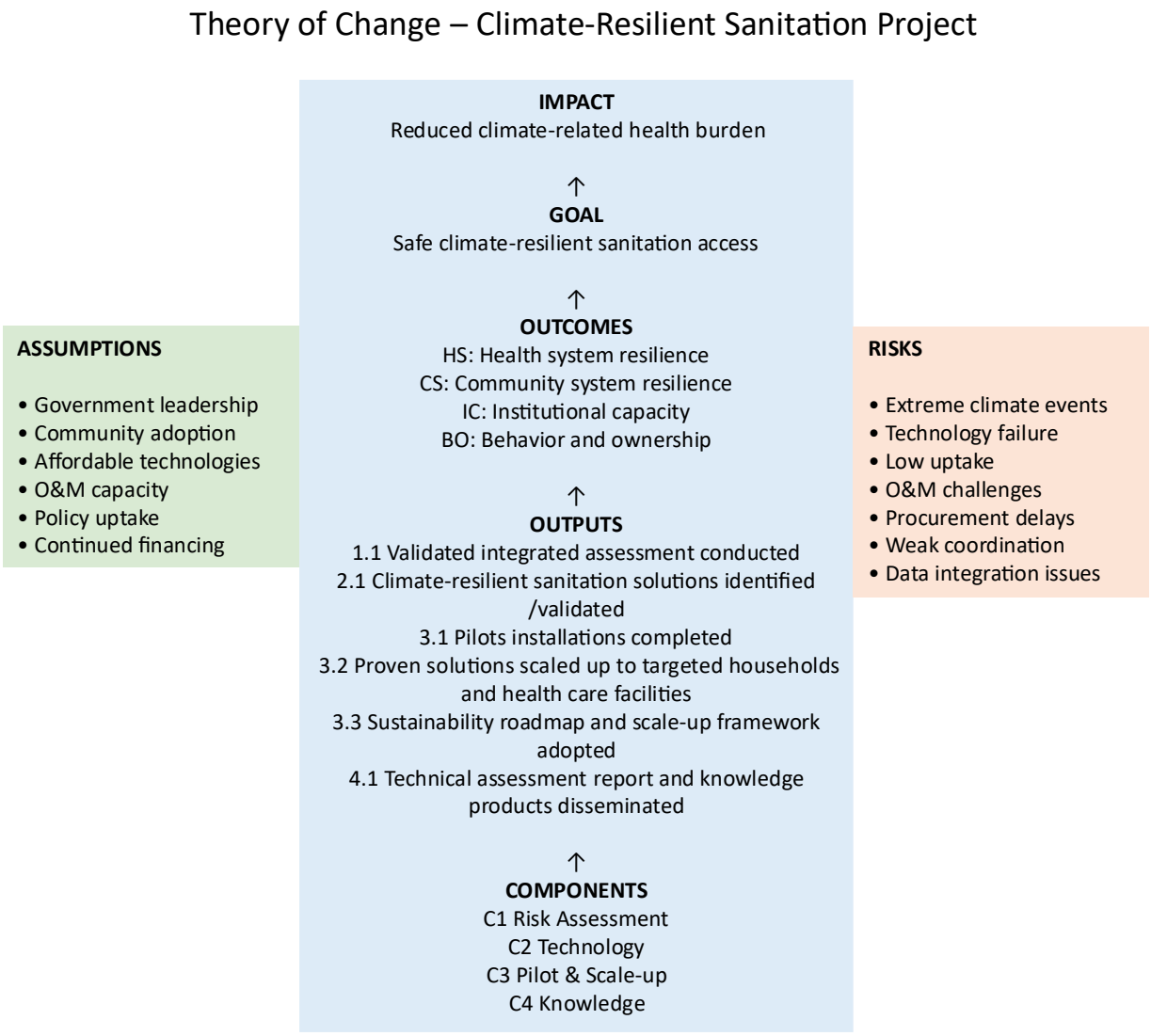
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				and 357,561 men/boys)		framework. - Indicator 3.3.1: Costed roadmap formally endorsed - Indicator 3.3.2: ≥2 policy or budget commitments adopted for expansion	
Component 4: Technical assessment, documentation and dissemination of lessons learned	**Output 4.1: Lessons learned documented and disseminated nationally**	- Technical assessment of performance of systems, climate resilience, public health outcomes, and IPC impacts - Develop policy briefs, technical guidance and knowledge products - Conduct national dissemination workshops and experience-sharing events	Government; academia; technical institutions, NGOs; WHO; partners	**Component 4** **- 200 stakeholders reached** through technical assessment and dissemination activities **(100 women, 100 men)**	- 1 technical assessment completed - ≥3 knowledge products developed and disseminated - ≥1 national dissemination event conducted	Outcome 4.1 Evidence and lessons learned on climate-resilient sanitation are documented, disseminated, and used to inform future investments, programme design, and replication. - Indicator 4.1: Project evidence used in ⩾2 policy/programme design processes - Indicator 4.2.: ≥1 national dissemination exercise completed and documented	Supports replication and scaling of proven climate-resilient solutions

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Theory of Change (ToC)



ToC statement

27. **If** climate-related risks to sanitation systems in ger areas and vulnerable provinces are systematically assessed (Component 1), and context-appropriate, climate-resilient sanitation technologies are identified and validated through innovation and feasibility analysis (Component 2), and these solutions are piloted, scaled up, and supported by strengthened standards, capacity, and monitoring systems (Component 3), and evidence and lessons learned are generated and disseminated to inform policy and replication (Component 4),
    then households and primary health care facilities will gain sustained access to safe, functional, and climate-resilient sanitation services,
    leading to:
    - reduced exposure to faecal contamination and climate-sensitive diseases,
    - strengthened infection prevention and control and resilience of health services, and
    - enhanced institutional capacity to plan, regulate, finance, and scale climate-resilient sanitation

    which ultimately results in reduced climate-related health risks and improved health and well-being of vulnerable populations in ger areas and selected provinces, while increasing their adaptive capacity to climate change.

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(i) Main problem

28. Ulaanbaatar's ger areas, home to approximately 204,670 households (around 715,121 people), representing 44% of the city's population, rely heavily on unsafe and non-climate-resilient sanitation systems, predominantly poorly designed and maintained pit latrines and inadequate wastewater and excreta management. These systems contribute significantly to environmental contamination and elevated public-health risks, including faecal-oral disease transmission. The situation is further compounded by the fact that around 80% of pit latrines do not meet national standards and approximately 85% have moderate to high environmental impact, while only about 66% of households in Ulaanbaatar have access to improved sanitation facilities. These risks are amplified by climate hazards and seasonal variability—notably extreme cold and flash floods—which lead to sanitation system failures such as freezing, overflow, and leakage. As a result, vulnerable households face increased exposure to contamination and disease, while primary health care facilities are placed under additional strain due to heightened demand for services associated with sanitation-related health risks.
29. In addition, many primary health care (PHC) facilities, particularly in provinces, face similar systemic challenges, with inadequate or non-climate-resilient sanitation infrastructure, including reliance on pit latrines and poorly functioning systems that compromise infection prevention and control. These limitations reduce the capacity of PHC facilities to maintain safe service delivery, especially during climate-related shocks and disease outbreaks, further exacerbating public health risks and placing additional pressure on already constrained health systems.

(ii) Goal

30. To protect and improve the health and well-being of vulnerable populations by promoting the adoption and scaling of innovation-driven, healthy and climate-resilient sanitation systems and services for households in the ger areas of Ulaanbaatar and for primary health care facilities in selected vulnerable provinces. The project will strengthen community engagement, behaviour change, and institutional capacity to ensure sustainable, equitable, and climate-resilient sanitation solutions that reduce environmental contamination, prevent climate-sensitive diseases, and enhance the resilience of both communities and the health system.

(iii) Components

The project delivers its objective through four interlinked components:

1. **Component 1:** Systematic analysis of climate-related risks to sanitation and technical requirements of climate-resilient and environmentally sustainable sanitation technologies and systems adaptable in vulnerable peri-urban/ger areas/province
2. **Component 2:** Innovation, technology assessment, and feasibility of climate-resilient sanitation solutions.
3. **Component 3:** Piloting and scaling proven climate resilient sanitation solutions for households and PHC facilities, including development of enabling standards, guidance, monitoring, and a sustainability roadmap to support wider roll out.
4. **Component 4:** Technical assessment, documentation and dissemination of lessons learned.

(iv) Results pathway – outcomes, outputs and activities

Outcomes:

a) EVIDENCE: Improved institutional capacity to identify and address climate-related sanitation and public health risks, and to select climate-resilient sanitation technologies based on validated technical, cost-effectiveness, scalability, and public health criteria.
b) TECHNOLOGY: Availability of technically feasible, context-appropriate, and scalable climate-resilient sanitation solutions for cold- and flood-prone areas, with improved stakeholder capacity to identify and appraise suitable options.

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c) PILOT: In pilot areas, increased household and health system resilience to climate shocks through year-round access to safe, functional, and climate-resilient sanitation systems, supported by improved operation, maintenance, and self-monitoring practices.
d) SCALE: Improved access to safe, climate-resilient sanitation for households and primary health care facility users, reduced exposure to faecal contamination and climate-sensitive diseases, and strengthened health system resilience through improved operation, monitoring, and surveillance.
e) SYSTEM STRENGHTENING and SUSTAINABILITY: Strengthened national and subnational capacity, policies, and financing mechanisms to adopt, regulate, and scale climate-resilient sanitation systems, supported by an endorsed sustainability roadmap.
f) KNOWLEDGE: Evidence and lessons learned on climate-resilient sanitation are documented, disseminated, and used to inform future investments, programme design, and replication.

Outputs and key activities by component:

Component 1 – Systematic analysis of climate-related risks to sanitation and technical requirements of climate-resilient and environmentally sustainable sanitation technologies and systems adaptable in vulnerable peri-urban/ger areas/provinc.

- **Output 1.1:** Validated integrated assessment (climate risks, sanitation service chain, health and IPC risks)
    - **Activities:** household and facility assessments; vulnerability analysis; field assessments; data collection; participatory consultations; stakeholder validation workshop(s) to generate an evidence base for climate-resilient sanitation solutions.

Component 2 – Innovation, technology assessment, and feasibility of climate-resilient sanitation solutions

- **Output 2.1: C**limate-resilient sanitation solutions identified and validated through feasibility studies
    - **Activities:** establishment and operation of the innovation hub, as well as design, testing, and feasibility studies of climate-resilient sanitation technologies, including technical, economic, and social assessments and community engagement activities; community acceptability sessions; selection of pilot packages.

Component 3 – Piloting and scaling proven climate-resilient sanitation solutions for households and PHC facilities, including development of enabling standards, guidance, monitoring, and a sustainability roadmap to support wider roll-out.

- **Outputs 3.1 and 3.2:** Pilot installations completed and evaluated; proven solutions scaled up to targeted households and health care facilities.
    - **Activities:** procurement, piloting in selected households, installation and monitoring; O&M training; scaled installation -procurement and installation of sanitation systems at household (~1,000) and primary health care facility (~50) levels; capacity building for engineers/health/environment staff; routine monitoring of soil/water/health indicators; behaviour change interventions, and establishment of monitoring and climate-informed surveillance systems.
- **Output 3.3.:** Sustainability roadmap and scale-up framework developed and adopted
    - **Activities:** development of national standards and guidelines; integration into policies and plans; development of costed roadmap and M&E framework

Component 4 – Technical assessment, documentation and knowledge dissemination

- **Output 4.1:** Technical assessment report and knowledge products disseminated.
    - **Activities:** technical assessment; production of policy briefs/technical guidance/case studies; national dissemination events.

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Long-term impact:

Reduced climate-related health burden in ger areas and vulnerable provinces through sustained access to climate-resilient sanitation, decreased environmental contamination, and strengthened institutional and community adaptive capacity.

(v) Assumptions and risks

Assumptions:

- Government maintains strong multisectoral coordination and leadership across health, environment, and urban development sectors.
- Selected sanitation technologies are affordable, socially acceptable, and technically feasible for ger area conditions.
- Communities, including women and vulnerable groups, are willing to adopt and maintain new sanitation solutions.
- Adequate operation and maintenance (O&M) systems, including local technical capacity and supply chains, are in place.
- Institutional stakeholders are able to integrate project outputs into policies, standards, and financing mechanisms.
- Climate variability remains within anticipated design thresholds, allowing systems to perform as intended

Key risks:

- **Extreme climate events:** Freezing, flooding, or permafrost instability may exceed system tolerance and cause failure; mitigated through conservative design, climate-informed siting, seasonal testing, and adaptive design adjustments.
- **Technical performance (maladaptation):** Technologies may underperform under local cold–flood and soil conditions; addressed through feasibility studies, phased piloting, monitoring, and iterative refinement before scale-up.
- **O&M sustainability:** Low-income households may face maintenance barriers; mitigated through training, behaviour change, simplified design, and accessible maintenance support.
- **Limited uptake and behaviour change:** Adoption may be constrained by cultural or affordability factors; addressed through participatory planning, user-centred design, and targeted communication.
- **Supply chain and implementation delays:** Procurement or material shortages may affect timelines; mitigated through early planning, supplier prequalification, use of local materials, and phased rollout.
- **Institutional coordination and policy uptake:** Weak coordination may limit scale-up; mitigated through multisectoral mechanisms, clear roles, and stakeholder engagement.
- **Monitoring and data integration:** Integration of climate, environmental and health data systems may face challenges; addressed through early design, interoperability standards, and phased implementation.
- **Public health and environmental risks during implementation:** Construction and sludge handling may increase contamination risks; mitigated through strict environmental and social management procedures and safety protocols.

Beneficiaries

31. The project will directly benefit approximately 1,000 households, representing about 4,000 people, through the installation of climate-resilient sanitation systems at the community level in ger districts of Ulaanbaatar. Based on population assumptions, these direct beneficiaries include around 2,000 women and girls and 2,000 men and boys, with final figures to be confirmed during Component 1 baseline assessments. In addition, improvements in 50 primary health care facilities

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are expected to benefit an estimated 500,000 (250,000 women and girls and 250,000 men and boys) people across their catchment areas in selected vulnerable provinces. These populations are geographically distinct from the targeted ger areas.

32. The project will also strengthen human resource capacity by training approximately 700–900 individuals, including health workers, engineers, inspectors, and community members, with a commitment that at least 55% (385-495) of participants will be women.
33. Indirectly, the project is expected to benefit up to 715,000 residents living in ger areas of Ulaanbaatar, as a result of strengthened policies, standards, monitoring systems, and the replication and scaling of climate-resilient sanitation solutions. These indirect benefits are expected to be distributed approximately equally, with around 50% women and 50% men, (≈357,560 women/girls and 357,561 men/boys) based on population structure.
34. While system-level improvements in provinces are expected to generate additional indirect benefits—particularly through strengthened infection prevention, surveillance, and public health response—these impacts are not fully quantified at this stage.
35. The project places strong emphasis on vulnerable populations who are disproportionately affected by poor sanitation and climate risks. Vulnerable groups benefiting from the project include:

    - Women and girls, who face higher safety, privacy, and caregiving burdens related to sanitation;
    - Children, particularly those under five, who are more vulnerable to diarrhoeal diseases;
    - Older people and persons with disabilities, who face mobility and access barriers;
    - Low-income households, which are more exposed to climate-related sanitation risks; and
    - Individuals with chronic health conditions, who are more vulnerable to sanitation-related infections.

36. The project prioritizes these groups through targeted beneficiary selection, inclusive design of sanitation technologies, and gender-responsive participation and monitoring. Mongolia does not have the indigenous groups.

Equitable distribution of benefits and benefits to vulnerable communities

37. The project ensures equitable distribution of benefits through vulnerability-based targeting, inclusive participation, and continuous monitoring, prioritizing ger areas and provinces with prone to floods and PHC facilities using unimproved pit latrines and populations most exposed to sanitation-related climate risks.
38. Beneficiary selection will be based on exposure to extreme cold and flooding, poverty levels, and service gaps, with particular attention to female-headed and high-vulnerability households. Community consultations, including active participation of women and caregivers, will inform decisions on technology selection and implementation.
39. Gender-responsive participation targets and disaggregated monitoring will ensure that equity is maintained throughout implementation.
40. The project will deliver targeted benefits to vulnerable groups. Women and girls will benefit from improved safety, privacy, and reduced time burden, as well as priority access to training and enhanced working conditions in health facilities. Women will also benefit from increased participation in decision-making processes, including technology selection and community validation, as well as priority access to training and capacity-building opportunities that strengthen their technical and leadership roles.
41. Another vulnerable group, children will experience reduced disease risk and improved wellbeing, while older people and persons with disabilities will benefit from safer, more accessible sanitation systems. Low-income households will gain affordable and resilient solutions that reduce long-term costs, and individuals with higher health vulnerability will benefit from reduced exposure to sanitation-related risks and improved service continuity.
42. At the health system level, all populations within the catchment areas of the 50 primary health care facilities in selected provinces will benefit equitably from improved sanitation and infection prevention standards, ensuring reduced health risks and continuity of services during climate extremes. Equitable distribution will be continuously monitored through

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sex- and age-disaggregated data, tracking of vulnerable group participation, and community feedback mechanisms, allowing for adjustments where needed. This approach ensures that equity is not only built into project design but actively maintained throughout implementation.

B. Describe how the project/programme provides economic, social and environmental benefits, with particular reference to the most vulnerable communities, and vulnerable groups within communities, including gender considerations. Describe how the project/programme will avoid or mitigate negative impacts, in compliance with the Environmental and Social Policy and Gender Policy of the Adaptation Fund.

43. The project generates measurable direct economic benefits through three main channels.
44. **First,** improved sanitation and reduced exposure to contamination among approximately 4,000 direct household beneficiaries are expected to reduce productivity losses associated with illness. Based on the project assumptions, a 20–30% reduction in diarrhoeal disease incidence would result in approximately 8,000 workdays saved per year, generating productivity gains estimated at USD 130,000–160,000 annually, including reduced absenteeism and caregiving burdens, particularly for women.
45. **Second,** reduced disease burden is expected to lower household and health service treatment costs, resulting in savings of approximately USD 30,000–45,000 per year.
46. **Third,** climate-resilient sanitation systems will reduce repeated infrastructure failure and associated repair and replacement costs, generating an additional USD 100,000–150,000 per year in avoided costs.
47. Taken together, **the total direct annual economic benefit** is conservatively estimated at USD **260,000–355,000**. These are conservative proxy estimates based on direct beneficiary numbers, expected disease reduction, and avoided sanitation-system failure.
48. Beyond direct household beneficiaries, the project generates substantial **health system-level economic benefits** through improvements in 50 primary health care facilities located in selected provinces. Based on an estimated average catchment population of 10,000 people per facility, these interventions will benefit approximately 500,000 people through improved infection prevention and control, reduced disease transmission, improved service continuity during climate shocks, and reduced burden on health services.
49. Using conservative proxy assumptions, these system-level health gains are estimated at approximately **USD 200,000–600,000 per year.** These benefits reflect avoided health system costs, improved workforce productivity, and reduced outbreak response expenditures.
50. In addition, broader **indirect economic benefits** are expected across the wider ger area population of up to approximately 715,000 residents in Ulaanbaatar, resulting from improved environmental conditions, reduced contamination, strengthened sanitation systems, and enhanced institutional capacity. These indirect benefits are conservatively estimated at **USD 300,000–800,000** per year.
51. To provide a more comprehensive valuation of the project, additional indicative benefits have also been estimated using proxy assumptions. These include:

    - USD 50,000–100,000 per year in avoided environmental remediation costs
    - USD 40,000–70,000 per year in avoided groundwater and soil contamination costs
    - USD 25,000–60,000 per year in reduced outbreak-response costs
    - USD 20,000–50,000 per year in reduced burden on the health system
    - USD 50,000–120,000 per year in policy and institutional efficiency gains
    - USD 100,000–300,000 per year in early replication value beyond initial target sites

52. These additional benefit streams amount to approximately **USD 285,000–700,000** per year.
53. Accordingly, when all direct, health system-level, indirect, and additional indicative benefits are combined, the **project's total annual economic benefit** is conservatively estimated at approximately: **USD 1.045 million – 2.455 million per year**
54. These estimates remain indicative and will be further refined at the full proposal stage using site-specific baseline data and validated cost assumptions.

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55. The project also generates important **social benefits**, many of which can be expressed in figures. It will directly benefit around 4,000 people and indirectly improve conditions for up to 715,000 residents in ger areas through improved standards, monitoring, environmental conditions, and replication of successful sanitation approaches. A 20–30% reduction in diarrhoeal disease incidence among direct beneficiaries would correspond to approximately **800–1,200 avoided cases annually**. Women and girls, who are disproportionately affected by poor sanitation through caregiving burdens, privacy concerns, time loss, and safety risks, are expected to benefit substantially. Around 2,000 direct beneficiaries are expected to be women and girls, and approximately 385–495 women are expected to participate in training and capacity-building activities, assuming that at least 55% of participants are women. In addition, improved sanitation access could save approximately 365,000–730,000 hours annually across the 1,000 target households through reduced caregiving and sanitation-related time burdens. The project will also improve sanitation and infection prevention conditions in 50 primary health care facilities, benefiting larger catchment populations beyond the direct users of the systems.
56. The **environmental benefits** are also substantial and can be expressed through proxy figures. The project will directly shift 1,000 households from unsafe or climate-vulnerable sanitation systems to safer climate-resilient systems, thereby controlling or eliminating around 1,000 household-level contamination sources. Based on expected system performance, around 700–900 households may be protected from sanitation failure during flooding and freezing events, representing a 70–90% reduction in failure risk in target areas. Depending on final site conditions, contamination hotspots in targeted areas could be reduced by approximately 30–50%, while improved containment and waste management are expected to contribute to a 10–20% reduction in sanitation-related methane emissions in project areas, using conservative proxy assumptions. In addition, improved sanitation in 50 primary health care facilities will reduce environmental health risks in service settings and strengthen resilience of frontline health services.

Table 4. Summary of quantified benefits (direct + indirect + additional indicative values)

Dimension	Type of benefit	Quantified estimate	Explanation / basis
Economic	Productivity gains (direct)	**USD 130,000–160,000/year**	Reduced illness and caregiving burden among ~4,000 direct household beneficiaries in Ulaanbaatar
	Treatment cost savings (direct)	**USD 30,000–45,000/year**	~800–1,200 diarrhoeal cases avoided annually (20–30% reduction among direct beneficiaries)
	Avoided infrastructure costs (direct)	**USD 100,000–150,000/year**	Reduced failure, repair, and replacement of sanitation systems
	Health system benefits (PHC catchment populations)	**USD 200,000–600,000/year**	~500,000 people benefiting from improved sanitation, infection prevention and service continuity in 50 PHC facilities in selected provinces
	Indirect productivity gains	**USD 300,000–800,000/year**	Wider ger population benefits through reduced disease transmission and improved environmental conditions (~715,000 people in Ulaanbaatar)
	Avoided environmental remediation costs	**USD 50,000–100,000/year**	Reduced need for clean-up and emergency environmental response
	Avoided groundwater and soil contamination costs	**USD 40,000–70,000/year**	Improved containment from climate-resilient sanitation systems
	Reduced outbreak-response costs	**USD 25,000–60,000/year**	Lower emergency health response costs
	Reduced burden on the health system	**USD 20,000–50,000/year**	Reduced service pressure due to sanitation-related illnesses
	Policy and institutional efficiency gains	**USD 50,000–120,000/year**	Improved planning, monitoring, and targeting through strengthened systems
	Early replication value	**USD 100,000–300,000/year**	Value of scaling validated solutions beyond initial sites
	Total annual economic benefit	**USD 1.045–2.455 million/year**	Combined direct, PHC-related, indirect, and additional benefits
Social	Direct beneficiaries	**~4,000 people**	Household-level beneficiaries in

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			Ulaanbaatar
	Indirect beneficiaries	**Up to ~715,000 people**	Ger population benefiting from environmental and system-level improvements
	PHC catchment beneficiaries	**~500,000 people**	Population served by 50 PHC facilities in selected provinces (not included in ger population)
	Women beneficiaries	**~2,000 women and girls (direct)**	Direct female beneficiaries at household level
	Women in PHC catchment population	**~250,000 women and girls**	Estimated 50% of PHC catchment population
	Women trained	**~275 women**	Based on ≥55% female participation in training activities
	Trained professionals	**~500 people**	Health workers, engineers, inspectors, community members
	Disease reduction	**20–30% reduction**	Equivalent to ~800–1,200 avoided diarrhoeal cases annually (direct HH)
	Time savings	**365,000–730,000 hours/year**	Reduced caregiving and sanitation-related time burden
	Health system strengthening	**50 PHCs improved**	Improved IPC, sanitation and service continuity in facilities
Environmental	Households with improved sanitation	**1,000 households**	Shift from unsafe to climate-resilient sanitation systems
	PHCs with improved sanitation	**50 facilities**	Reduced environmental and public health risks in health facilities
	Contamination sources controlled/eliminated	**~1,000 sources**	Replacement/upgrading of unsafe household sanitation systems
	Households protected from failure	**700–900 households**	70–90% protection against freezing/flood-related sanitation failure
	Reduction in contamination hotspots	**~30–50% in target areas**	Improved containment and reduced leakage in ger areas
	Reduction in sanitation-related methane emissions	**~10–20% in project areas**	Improved waste containment compared to pit latrines
	Soil and groundwater protection	**Qualitative (improved conditions)**	Reduced leakage, overflow, and contamination from sanitation systems
	Climate-resilient sanitation systems	**1,000 HH + 50 PHCs**	Infrastructure designed to withstand extreme cold, flooding, and climate variability

57. **An initial gender analysis** was undertaken during the formulation of the Concept Note to inform problem identification, intervention design, and beneficiary targeting.
58. Despite strong progress in education, significant gender inequalities persist in Mongolia. Female labour force participation is 51.5% compared to 68.2% for men (World Bank Gender Data Portal, 2025), and women are approximately 15 percentage points less likely to be employed and earn about 25% less than men (World Bank Gender Assessment, 2024). While educational attainment among girls is high, with 90.8% completing lower secondary education (World Bank Gender Data Portal, 2025), this has not translated into equal economic outcomes. Women continue to bear a disproportionate burden of unpaid care and domestic work, accounting for 18.9% of their time compared to 7.5% for men (UN Women Data Hub, 2024), which significantly constrains their participation in paid employment. In decision-making, women remain underrepresented, holding between 18.1% and 25% of parliamentary seats and only around 15% of senior leadership positions (UN Women Data Hub, 2024; World Bank Gender Assessment, 2024). In addition, women face ongoing barriers in accessing financial resources and economic opportunities, particularly among low-income and vulnerable populations (World Bank Gender Assessment, 2024).

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59. The assessment combined qualitative evidence and available quantitative data, drawing on national statistics, WHO guidance on gender and WASH, and consultations with government stakeholders, technical experts, and community representatives in ger areas. These consultations included frontline health workers and community members responsible for sanitation and caregiving, ensuring that gender perspectives—particularly those of women and vulnerable groups—were integrated into the project design from the outset.
60. The analysis confirms clear gender dynamics and differentiated impacts between women and men. In ger areas, women and girls bear a disproportionate burden of sanitation management, hygiene practices, and caregiving responsibilities. This results in higher time burdens, increased exposure to health risks, and reduced opportunities for income-generating activities, particularly during periods of sanitation system failure caused by extreme cold or flooding. At the same time, women are strongly represented in the health and social sectors, especially in primary health care, where they constitute a large proportion of frontline workers, increasing their exposure to inadequate sanitation and infection risks within health facilities. Despite relatively high gender parity in education, women remain underrepresented in technical, engineering, and infrastructure decision-making roles, including those related to sanitation system design and urban planning. This limits the extent to which gender-specific needs—such as safety, privacy, accessibility, and usability—are systematically integrated into sanitation infrastructure and policy development.
61. The assessment also highlights differentiated vulnerabilities across population groups. Women and children are more exposed to sanitation-related diseases due to their close interaction with the household environment and caregiving roles. Older people and persons with disabilities face additional mobility and access challenges, particularly in winter conditions or where facilities are unsafe or distant. Inadequate sanitation facilities may also compromise privacy, dignity, and safety, disproportionately affecting women and adolescent girls and, in some cases, leading to reduced usage or unsafe coping practices.
62. These findings have directly informed the project's gender-responsive and inclusive design. The project ensures that women will constitute at least 50% of direct beneficiaries and at least 55% of participants in training and community engagement activities, with specific efforts to include female caregivers and vulnerable groups. To achieve these targets, the project applies a set of structured measures, including gender-responsive beneficiary selection criteria that prioritize female-headed households and vulnerable groups; mandatory participation targets embedded in all training, consultation, and community engagement activities; active outreach and engagement strategies tailored to ensure women's participation; sex-disaggregated monitoring and reporting across all outputs and outcomes, with regular tracking and corrective action where needed; and the inclusion of women in technical and decision-making platforms, including the innovation hub and stakeholder consultations. These measures ensure that gender targets are not only aspirational but systematically implemented, monitored, and achieved throughout the project cycle.
63. Sanitation technologies will be assessed and selected based on criteria related to safety, accessibility, privacy, and ease of use, and community validation processes will explicitly incorporate women's feedback. Improvements in primary health care facilities will also enhance occupational safety and working conditions for female health workers through strengthened infection prevention and control measures.
64. To ensure accountability and measurable results, the project will apply sex-disaggregated indicators across all outputs and outcomes, including training participation, service access, and user satisfaction. Gender considerations will be systematically integrated into monitoring and evaluation frameworks and regularly reported to the Adaptation Fund.
65. In line with Adaptation Fund requirements, the gender analysis will be further strengthened during Component 1 through detailed site-specific assessments and expanded consultations with women, men, and vulnerable groups. This phased approach ensures that gender equality considerations are continuously refined and embedded throughout the project lifecycle—from design to implementation and scale-up—ultimately contributing to more equitable, effective, and sustainable climate-resilient sanitation outcomes.
66. At the Concept Note stage, the project includes **Unidentified Subprojects (USPs)**, as specific locations, households, and health care facilities will be defined following feasibility assessments. The use of USPs is limited to specific outputs where

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final site selection, technology choice, and detailed activity design depend on evidence generated during implementation. These include:

- Component 2 – Output 2.1: Identification and validation of climate-resilient sanitation solutions;
- Component 3 – Output 3.1: Pilot implementation at household level and PHC facilities;
- Component 3 – Output 3.2**:** Scale-up of sanitation services for households and primary health care facilities.

67. These outputs involve site-specific, context-dependent interventions that cannot be fully defined at this stage. The USP approach enables **context-specific design**, **technical validation**, and **adaptive implementation**, ensuring that selected technologies are appropriate for local conditions such as soil characteristics, groundwater levels, flooding risks, and extreme cold.
68. The selection of the 50 primary health care (PHC) facilities will be undertaken during implementation through a transparent, criteria-based process in line with Adaptation Fund requirements for Unidentified Sub-Projects (USPs). Facilities will not be pre-selected at the concept stage but will be identified based on evidence generated under Component 1 and existing national assessments. Selection will prioritize PHC facilities located in areas with high exposure to climate risks, including extreme cold, flooding, and water scarcity, as well as those with significant gaps in water, sanitation and hygiene (WASH) services, particularly facilities relying on pit latrines or lacking functional sanitation systems.
69. Additional criteria will include population catchment size, burden of sanitation-related health risks, geographic representation across provinces, and inclusion of vulnerable and underserved populations. A systematic assessment and scoring process will be applied to shortlist and prioritize facilities, followed by validation with the Ministry of Health and relevant subnational authorities. All selected facilities will undergo environmental and social screening in accordance with the Adaptation Fund Environmental and Social Policy, ensuring compliance with safeguard requirements. This approach will ensure that investments are targeted, equitable, and aligned with national priorities while maximizing climate resilience and public health impact.
70. In general, the use of USPs provides several important benefits:

- Context-specific design and targeting: Final selection of technologies and locations is based on detailed assessments of soil conditions, flooding risks, groundwater levels, and extreme cold exposure, ensuring interventions are technically appropriate and locally adapted.
- Avoidance of maladaptation: The phased approach (assessment → feasibility → pilot → scale-up) ensures that only technologies proven to function under combined climate stresses are implemented at scale, reducing risk of failure and wasted investment.
- Improved equity and inclusion: Flexible targeting allows prioritization of vulnerable households, including low-income households, women-headed households, and populations in high-risk areas.
- Enhanced cost-effectiveness: Resources are directed only to validated and scalable solutions, improving efficiency and avoiding investment in unsuitable technologies.

71. These advantages outweigh potential risks, as the USP approach strengthens compliance with the Adaptation Fund Environmental and Social Policy (ESP) and Gender Policy. It is based on validated technical, environmental, and social feasibility; supports effective targeting of vulnerable groups; and ensures that all interventions are tested before large-scale implementation, thereby minimizing risks of poor performance, environmental harm, or social exclusion. The approach also facilitates adaptive management, allowing the project to respond to uncertainties related to climate variability, technology performance, and community needs.

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72. All USPs will be implemented in full compliance with the ESP and Gender Policy and will be governed by the Environmental and Social Management Plan (ESMP). Each sub-project will undergo environmental and social screening prior to approval, with site-specific mitigation measures applied as required. Sub-projects will adhere to principles of access and equity, gender responsiveness, public health protection, and environmental safeguards, supported by a monitoring and reporting framework throughout implementation.
73. To ensure full compliance, all USPs will be subject to clearly defined eligibility criteria, screening procedures, and approval mechanisms. These include exclusion criteria (such as no land acquisition or impacts on protected areas), prioritization of vulnerable communities, and classification of risks (limited to Category B or lower). Where required, site-specific mitigation measures will be developed and monitored through a structured USP tracking system. This approach ensures that the project remains flexible and context-responsive while maintaining rigorous environmental and social safeguarding.
74. The project also considers **potential unintended risks and impacts**, all of which are assessed as low to moderate and manageable. These include short-term construction disturbances, risk of exclusion of vulnerable groups, potential O&M burdens on households, technology failure under extreme climate conditions, USP-related risks, and the possibility of reinforcing gender inequalities. These risks will be mitigated through targeted measures such as environmental and social management plans, transparent selection criteria, affordability-focused technology design, phased piloting, gender-responsive approaches, and continuous monitoring. Overall, no significant or irreversible negative impacts are anticipated, and the project's design—based on evidence, participation, and phased implementation—ensures that risks are minimized while adaptation benefits are maximized and sustained over time.

C. Describe or provide an analysis of the cost-effectiveness of the proposed project/programme.

75. The proposed project is cost-effective because it combines targeted infrastructure investments with enabling systems—including assessment, technology validation, standards development, capacity building, monitoring, surveillance, and knowledge generation—to ensure that sanitation solutions are technically viable, socially acceptable, and resilient to climate impacts over time. This design increases the likelihood that investments will remain functional and useful under Mongolia's extreme climatic conditions, especially severe winter freezing and periodic flooding, while reducing the risk of maladaptation and repeated infrastructure failure.
76. Cost-effectiveness has been assessed against two specific comparison scenarios. The first is the baseline scenario, under which traditional pit latrines and fragmented sanitation services continue in ger areas and PHC facilities, with no systematic climate adaptation measures. The second is a conventional alternative scenario, under which sanitation systems may be incrementally improved using standard or non-climate-resilient technologies, but without the full package of climate-risk assessment, technology validation, standards, and institutional strengthening included in the proposed project. Under the baseline scenario, sanitation systems remain highly vulnerable to freezing, flooding, leakage, and overflow, which leads to environmental contamination, continued diarrhoeal disease transmission, repeated rehabilitation costs, and weak service continuity. Under the conventional alternative, some immediate improvements may be achieved, but systems would still remain vulnerable under climate stress and would not deliver the same level of resilience, health gains, or scaling potential. The Concept Note already notes that poor sanitation in Mongolia leads to annual economic losses of approximately USD 26 million, equivalent to around 0.5% of GDP, demonstrating the significant cost of inaction.
77. Component 1 (USD 200,000) is cost-effective because it reduces the risk of inappropriate investment decisions. In the baseline scenario, sanitation-related investments may proceed without sufficient evidence on climate risks, technical performance, or health impacts, increasing the likelihood of selecting unsuitable technologies and locations. In the conventional alternative scenario, technology selection may still rely on generic assumptions without adequate validation under combined cold- and flood-risk conditions. The proposed project addresses this by financing a comprehensive assessment of sanitation vulnerabilities, technical requirements, public health impacts, and climate risks before major investments are made. This relatively small investment protects the value of the much larger downstream infrastructure allocation by reducing the probability of costly misallocation and failure.
78. Component 2 (USD 1,000,000) is cost-effective because it ensures that only feasible, affordable, and climate-appropriate sanitation technologies are selected for implementation. In the baseline and conventional alternative scenarios, sanitation

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improvements could be introduced without adequate validation under local conditions, resulting in high maintenance needs, limited acceptability, and lower performance in freezing and flood-prone environments. Under the proposed project, the innovation hub, feasibility studies, and participatory validation processes ensure that technologies are tested against technical, economic, and social criteria before they are scaled. This reduces lifecycle costs and the risk of maladaptation and improves the long-term value of the investment. As a conservative proxy, this component helps avoid a substantial share of potential downstream inefficiencies under the main infrastructure component by ensuring that the systems installed under Component 3 are fit for purpose.

79. Component 3 (approximately USD 11 million) represents the largest investment and delivers the largest direct benefits. Under the baseline scenario, households and primary health care facilities continue to rely on unsafe and climate-vulnerable sanitation systems that frequently fail due to freezing, flooding, and inadequate containment. These failures generate repeated repair and replacement costs, disease burden, and environmental contamination. Under the conventional alternative scenario, improved but non-climate-resilient systems may reduce some immediate sanitation problems, but they would still face relatively high breakdown rates during extreme conditions and would not be supported by the same level of standards, monitoring, surveillance, and capacity-building. Under the proposed project, approximately 1,000 households and 50 primary health care facilities will receive climate-resilient sanitation systems and associated support for operation, monitoring, and maintenance. These systems are expected to maintain functionality rates of at least 80–90%, thereby reducing system failure to a much lower level than under the baseline or conventional alternatives. This translates into significant avoided costs and improved resilience.
80. The total annual economic benefit of the project is estimated at **approximately USD 1.045–2.455 million (see the section B for details)**. These benefits are expected to accrue consistently over the lifetime of the infrastructure and institutional systems established, significantly exceeding the initial investment when assessed over a multi-year period.
81. The project also produces significant social and environmental benefits, which directly strengthen the overall cost effectiveness of the proposed intervention by increasing the value generated per unit of investment beyond monetized economic returns.
82. Socially, the project will directly benefit approximately 4,000 people at household level in Ulaanbaatar and indirectly improve conditions for up to 715,000 residents living in ger areas through improved sanitation systems, environmental conditions, strengthened monitoring, and replication of climate resilient solutions. In addition, improvements in 50 primary health care facilities in selected provinces will extend benefits to an estimated 500,000 people through improved infection prevention and control, reduced disease transmission, and enhanced service continuity during climate related shocks. This expanded population reach significantly increases the project's adaptation value and reduces the cost per beneficiary.
83. The intervention is expected to generate tangible social gains, including a 20–30% reduction in diarrhoeal disease incidence among direct household beneficiaries, equivalent to approximately 800–1,200 avoided cases annually, and annual time savings of approximately 365,000–730,000 hours due to reduced caregiving and sanitation-related burdens. These gains translate into improved productivity, reduced household vulnerability, and enhanced welfare, which are only partially captured in the quantified economic benefit estimates. In addition, improved sanitation and infection prevention conditions in PHC facilities are expected to reduce disease burden and service disruption across large populations, further increasing the project's system-level efficiency and effectiveness.
84. Environmentally, the project enhances cost-effectiveness by reducing long-term environmental damage and associated future costs. It will replace or control approximately 1,000 household-level contamination sources and improve sanitation conditions in 50 primary health care facilities, thereby reducing environmental and public health risks in both community and service settings. The project is expected to prevent sanitation system failure in approximately 700–900 households during flooding and freezing events, reduce contamination hotspots by 30–50% in targeted areas, and reduce sanitation-related methane emissions by approximately 10–20% in project locations. These outcomes reduce future remediation costs, protect natural resources, and enhance the sustainability of the investment.
85. At the macroeconomic level, the project **is expected to generate a GDP effect of approximately USD 0.52–2.6 million per year (equivalent to around 0.01–0.05% of GDP),** based on a 2–10% reduction in national sanitation-related losses estimated at USD 26 million annually, reflecting the combined impact of reduced disease burden, improved environmental conditions, and increased efficiency of health system services.
86. Taken together, these results demonstrate that the project delivers strong cost-effectiveness by combining direct household benefits, large-scale health system improvements, and environmental risk reduction. By extending benefits to

both targeted communities and broader populations through primary health care systems, the project achieves high adaptation impact per dollar invested and generates sustained economic, social, and environmental returns over its lifetime.

Table 5. Comparative cost-effectiveness of proposed sanitation technologies and alternative options

Technology option	Indicative unit cost	Estimated capital cost (for ~1,000 households + 50 PHCs)	Climate resilience (cold/flood)	Expected economic and public health outcomes	Overall cost-effectiveness
Baseline:	Minimal upfront (unimproved systems) USD 150–400 per household	**No new investment**, but continued losses	Very low	Continued sanitation-related economic losses (~USD 26 million/year nationally), high disease burden, repeated failure and repair costs	**Low** – lowest upfront cost but highest long-term economic and health losses
Improved	USD 1,500–2,500 (HH); USD 15,000–30,000 (PHC)	**USD 2.25–4.0 million**	Low–moderate	Some reduction in exposure and contamination, but limited protection against climate risks; benefits not sustained	**Moderate (short-term only)** – low cost but limited resilience and long-term value
Conventional septic tank	USD 5,000–9,000 (HH); USD 40,000–80,000 (PHC)	**USD 7.0–13.0 million**	Low–moderate	Improved service level, but high O&M costs, risk of freezing/leakage, and weak performance under extreme conditions	**Moderate** – higher cost with significant operational risk
Proposed option:	~USD 7,000 (HH); ~USD 36,000 (PHC)	**~USD 8.8 million**	High	Generates estimated **USD 1.045–2.455 million/year in economic benefits**, including reduced disease burden, avoided system failure, and improved PHC efficiency benefiting ~500,000 people	**High (optimal)** – best balance of cost, resilience, and sustained economic returns
Centralized sewer connections	USD 20,000–35,000 (HH); USD 100,000–250,000 (PHC)	**USD 25.0–47.5 million** (excluding trunk infrastructure)	High	High long-term benefits, but requires large-scale urban infrastructure, long timelines, and high financing	**Low (short–medium term)**

D. Describe how the project/programme is consistent with national or sub-national sustainable development strategies, including, where appropriate, national adaptation plan (NAP), national or sub-national development plans, poverty reduction strategies, national communications, or national adaptation programs of action, or other relevant instruments, where they exist.

87. The project aligns with Vision 2050, Mongolia's Nationally Determined Contributions, National Adaptation Plan, Development Priorities, Government Action Plan, Environmental Health Action Plan, and Ulaanbaatar's action plan. It contributes to SDGs 3, 6, 7, and 13 by addressing climate-sensitive health risks through adopting climate resilient sanitation systems, services and behaviors in vulnerable peri-urban area (Ger area) of Ulaanbaatar city.
88. **"VISION-2050"** is Mongolia's long-term development policy document approved by the Resolution # 52 of Mongolian Parliament in 2020. It outlines the country's vision and strategic goals for the year 2050 and serves as a roadmap for sustainable development and addresses various aspects of Mongolia's socio-economic development, governance, and environmental conservation.
89. The proposed project is consistent with this policy and will specifically contribute to the implementation of objective #2: emphasizes the development of human capital through improved education, healthcare, and social protection systems. It

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aims to ensure equal opportunities for all Mongolians, reduce poverty and inequality, and enhance social cohesion and objective # 3: Environmental Sustainability: aims to address environmental challenges, such as desertification, deforestation, and climate change, through the promotion of green practices, biodiversity conservation, and the transition to a low-carbon economy.

90. ***Mongolia's Five-Year Development Policy Framework, 2026–2030*** *was approved by the Resolution # 109 of Mongolian Parliament in 2025.* In the Five-Year Development Policy Directions of Mongolia for 2026–2030 the pressing issues at the national, sectoral, and budget administrator levels, as well as within the programs they implement, have been identified. The Policy Directions specify the solutions to these issues, the expected outcomes upon resolution, and the measurable indicators. These indicators are aligned with the United Nations Sustainable Development Goals (SDGs). Furthermore, the State Investment Program incorporates investment projects and measures aimed at implementing the Policy Directions, with detailed integration of budgetary and financial calculations and sources of funding.
91. The project specifically will contribute to the implementation of objective # **2.2.** Improve quality of life through a healthy and safe living environment, accessible housing, and quality social protection services; support family health and stability; ensure the guarantee of human rights; improve child development and protection to a new level; and increase the social well-being index by 20 percent and objective # 4.1. Ensure the balance of primary ecosystems, mitigate climate change, support the restoration and sustainable use of natural resources, introduce environmentally friendly advanced technologies, reduce pollution and waste from production and consumption, improve environmental quality standards, and raise the environmental performance index score to 59.0.
92. **National Adaptation Plan to Climate Change (2024-2030)**: The plan was approved by Resolution No. 01 of the National Committee of Climate Change in 2024. The project will contribute to the implementation of objective #14: Public Health**,** which aims to improve the knowledge and attitudes of the population and health workers, generate evidence for adaptation and mitigation interventions, and strengthen response capacity. Specifically, the project supports action 14.1**:** Developing evidence-based guidance and recommendations to protect public health from climate change impacts, action 14.2: Building the capacity of health workers to provide health education to the population, including vulnerable groups, on climate change and health and action 14.3**:** Building climate-resilient and environmentally sustainable health care facilities.
93. In addition, the project aligns with objective #1: Climate Change Adaptation Policy, which focuses on improving regulations across environmental, social, and economic sectors. It contributes action 1.2: Updating standards and norms for climate-resilient infrastructure, and action 1.11: Enabling multisectoral mechanisms to address the impacts of climate change on human health and strengthen response capacity. The project also supports objective #2: Knowledge and Capacity Building, which seeks to enhance stakeholder expertise in environmental and socio-economic sectors and expand research capacity. It contributes to action 2.3: Assessing the impacts of climate change, flooding, and permafrost on planning of engineering infrastructure and action 2.9: Implementing interventions to improve public knowledge of the health impacts of climate change and adaptation strategies.
94. **Nationally Determined Contributions (2025-2035):** The updated Nationally Determined Contributions (NDC 3.0) for 2025–2035 were endorsed by Government Resolution No. 91, issued on 10 September 2025. Mongolia has set an unconditional target of reducing greenhouse gas emissions by 30.3% by 2035, and a conditional target of reducing emissions by 52.8% with the support of international finance and technology. The target to reduce greenhouse gas emissions was identified in the NDC and the project will support the use renewable energy in WASH, renewal and construction of new central wastewater treatment plant to reduce GHG emissions from non-sewered systems and support health objective aimed to reduce GHG emissions from health care facilities, including water and sanitation facilities.
95. The project is consistent with the goal #7 (health sectoral goal) to study health impacts of climate change, improve actions for early warning and response and improve quality of health care and objectives a) enhance institutional capacity for early detection, warning, response, and mitigation of climate change related health threats, b) expand data collection and research on climate change-related diseases, and develop surveillance, information management, and early warning systems, c) develop climate resilient and environmentally sustainable health care infrastructure, and increase investment in these facilities and d) raise public awareness and understanding of the impacts of climate change on human health, and promote health preserving habits and behaviors across population. The project will also support the goal # 8 (livelihood of residents and social protection) to identify target people, improve their capacity, prevent risks and strengthen social-welfare and protection systems and cross-cutting objectives, goals and measures a) inclusive goal and measures ensuring

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participation of children, youth, vulnerable groups and gender equality and b) establish a favourable legal, institutional and financial environment and provide stakeholders with knowledge and information.

96. **Action Plan for Environmental Health (2025–2028).** The plan was approved on 10 December 2025 by Health Ministerial Order # A/465. The plan is a medium-term policy of Mongolia, developed to implement the Health Law, National Development Priorities, and Action 3.4.3.3: implementing comprehensive measures to prevent, reduce, and protect against environmental pollution that is included in the Government action plan; 2024-2028.
97. The plan was developed by the multisectoral working group members represented health and non-health sectors, including Ministry of Health, Ministry of Health, Ministry of Environment and Climate Change, Ministry of Urban Development, Construction and Housing, Ministry of Road and Transportation, National Agency for Environmental Management, National Center for Public Health, National Center for Occupational Safety and Health, Mongolian National University of Medical Science, WHO, NGO for Mongolian Epidemiologists, and Breath Mongolia NGO, and the planning process was facilitated by the MOH. The project is consistent with the action plan, specifically to support the implementation of objective 2# to improve water, sanitation, and hygiene services at community and health care facilities, including the updating regulations of water and sanitation risk assessment, standard of sanitation facilities, WASH in health care facilities, improving the inspection on soil quality and supporting programme to phase-out pit-latrine by safe sanitation facilities and objective #4 to implement the nationally determined contributions in the area of climate change and health (NDC 3.0), including the development of national regulations to assess vulnerabilities of health care facilities in the context of climate change, measuring greenhouse emissions on health system, building climate resilient and environmentally sustainable health care facilities, support health care facilities with provision of climate-resilient water and sanitation facilities and measure GHG emissions emitted from water and sanitation facilities of the selected health care facilities and households, assess health impacts of climate change, improving community empowerment on climate adaptation and mitigation measures.
98. **Action Plan for the capital, Ulaanbaatar city for 2024-2028.** The plan was approved by Resolotion (24/05) of the City Representative Khural on 15 November 2024 for implementing the Government Action Plan, 2024-2028. The project aligns with Objective 4 to protect natural environment and its recovery and supports action 4.3.1 by establishing protection zones to improve soil quality, reduce the number of pit latrines by half, and decrease soil contamination. The project aligns also objective 2 to improve quality and access to social care in line with the urban planning and population growth and action 2.1.3 to improve prevention, surveillance, early screening, treatment of communicable diseases including WASH-related diseases.

E. Describe how the project/programme meets relevant national technical standards, where applicable, such as standards for environmental assessment, building codes, etc., and complies with the Environmental and Social Policy of the Adaptation Fund.

99. The project is designed to align with Mongolia's regulatory framework and technical standards and the Environmental and Social Policy of the Adaptation Fund.
100. **Environmental impact assessment.** The project will comply with Mongolian Law of Environmental Impact Assessment, approved in 2012 and undergo through the screening accordance to the Law. Potential risk assessment and mitigation measures will be assessed for the construction component. The project also complies with the law of Hygiene; 9.1. Health impact assessments shall be conducted in accordance with articles 5.3 and 7.7 of Law on Environmental Impact Assessment and 9.2. In addition to occasions specified in paragraphs 5.2 and 9.1 of this law, the assessment shall be conducted in cases where there is a potential or existing health impact on human health.
101. **Building norms and standards:** Climate-resilient sanitation technology and system design, pilot, scale-up will comply with Mongolian norms and standards, including building norm and regulations 82-01-98, Hospital building planning norm and regulations 31-22-21, and relevant sanitation technical standards, including General requirements for selecting a site for wastewater treatment plants and treatment technologies and effectiveness MNS 4288:1995; General requirements. Wastewater discharged into the sewerage network. "MNS 6561:2025; Pipeline network and facilities CNR 40-02-2015; General requirement for pit latrine and soak pit, MNS 5924:2015 and Environmental hygienic requirements for health facilities. MNS 6392:2013.

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Table 6. National standards applicable to the activities of the proposed project

Law / Standard / Regulation	Scope and relevance (what it cover)	Relevant project components / outputs / activities	Compliance status and steps to comply
Law on Environmental Impact Assessment (2012)	Establishes requirements for environmental impact screening, general and detailed EIAs for development activities; mandatory prior to construction	Component 3: Pilot and scale-up installation of sanitation facilities in households and PHC facilities	**Compliance required.** All subprojects will undergo EIA screening. Where required, site-specific EIAs or environmental management plans (ESMPs) will be prepared and approved by competent authorities prior to construction
Law on Hygiene (2016)	Sets sanitary and hygienic requirements to protect public health, including health impact assessment (HIA) provisions	Components 1 and 3: Assessment of sanitation-related health risks; installation of sanitation systems in communities and PHCs	**Compliance required.** Health impact considerations integrated into assessment and design; installations reviewed by relevant health authorities
Law on Construction (2016)	Governs construction works, safety, quality control, and permitting	Component 3: Construction and installation of sanitation infrastructure	**Compliance required.** All works will follow national permitting procedures, certified contractors, and construction supervision requirements
MNS 5924:2015 – General requirements for pit latrines and soak pits	Minimum technical and hygienic standards for siting, design, construction, and safety of pit latrines and soak pits	Component 2 (technology selection); Component 3 (pilot and scale-up of on-site sanitation)	**Compliance required.** Technologies selected and installed will meet or exceed minimum specifications (sealing, distance from water sources, safety)
MNS 4288:1995 – General requirements for selecting sites for wastewater treatment plants	Site-selection criteria to prevent environmental and groundwater contamination	Component 3: Any systems involving treatment, storage, or off-site management of wastewater or fecal sludge	**Compliance required.** Site selection during design and feasibility stage will follow location, buffer and risk-avoidance requirements
MNS 6561:2025 – Wastewater discharged into sewerage network: general requirements	Standards for wastewater quality and safety when connected to sewer networks	Component 3: Sanitation systems connected to existing sewerage where applicable	**Conditional compliance.** Applied where sewer connections are used; verified during feasibility and design
CNR 40-02-2015 – Pipeline networks and facilities	Design and technical norms for pipeline and related infrastructure	Component 3: Sanitation systems with conveyance pipes or tanks	**Compliance required.** Engineering designs reviewed against CNR specifications
Hospital Building Planning Norms and Rules 31-22-21	Design and functional requirements for hospital and health facility buildings	Component 3: Sanitation facilities in PHC facilities	**Compliance required.** Facility-level sanitation improvements aligned with health-facility building standards
MNS 6392:2013 – Environmental hygienic requirements for health facilities	Hygiene and environmental safety standards for health-care facilities, including WASH	Component 3: PHC sanitation upgrades and IPC strengthening	**Compliance required.** Designs reviewed jointly with health authorities and IPC specialists
Law on Occupational Safety and Health (2008)	Worker safety, protective equipment, and risk prevention during construction	Component 3 and 4: Construction works; maintenance training	**Compliance required.** Contractors must apply OSH measures; monitoring included in supervision
Law on Waste (2017)	Regulation of solid and hazardous waste handling and disposal	Component 3: Construction waste; fecal sludge and residual waste management	**Compliance required.** Waste management plans included in ESMPs
National Climate Change Adaptation policies and standards	Integration of climate resilience into infrastructure design	Components 2 and 3: Technology design and selection	**Compliance required.** Climate-resilience criteria embedded in feasibility studies and design specifications
Adaptation Fund Environmental and Social Policy (ESP)	Environmental and social risk management, equity, gender, stakeholder engagement	All components	**Compliance required.** Screening of all interventions; Category B or lower; application of ESMPs and monitoring
Adaptation Fund Gender Policy	Gender equality, participation, and benefits	All components	**Compliance required.** Gender-responsive design, sex-disaggregated indicators, and monitoring

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F. Describe if there is duplication of project/programme with other funding sources, if any.

Table 7. List of projects that are or have been implemented in Mongolia and are related to the proposed project

Project title	Timeline & location	Main interventions & target population	Implementing entity / funding source	Key lessons learned (relevant to this proposal)	Overlaps & synergies with proposed AF project	Justification for no duplication
Ulaanbaatar Urban Services and Ger Areas Development Investment Program (GADIP)	Multi-tranche programme; active since 2013 (MFF) in Ulaanbaatar ger area subcenters	Trunk & municipal infrastructure improvements incl. water, sewerage, heating, roads, subcenter development; targets ger area residents and service providers	ADB (with co-financing; Municipality of Ulaanbaatar, utilities)	Institutional/capacity weaknesses are a key constraint; community consultation and integration with urban planning are crucial for design and implementation	Synergy: proposed AF project complements by focusing on household/HCF sanitation, climate resilience, public health outcomes, and standards/monitoring—areas not fully covered by trunk infrastructure investments.	Focus is on trunk infrastructure and sub-centres already connected or planned for network expansion in central ger areas, while the proposed project targets on-site sanitation systems and full sanitation service chains in non-sewered and peripheral ger areas not covered by centralized systems, including health facility improvements.
FP077: Ulaanbaatar Green Affordable Housing and Resilient Urban Renewal Project (AHURP)	Approved 2018; under implementation to 2030, Ulaanbaatar ger areas / eco-districts	Transform ger areas into eco-districts; low-carbon and climate-resilient infrastructure, public facilities, housing; large-scale urban renewal	Green Climate Fund (with ADB/partners)	Large redevelopment requires strong social/gender action planning and long-term O&M/finance mechanisms; climate resilience embedded in urban planning is essential	Strong synergy: proposed AF project focuses on sanitation as a public health adaptation measure and could provide standards, monitoring, and proven household/HCF sanitation models applicable to eco-district transitions, especially where sewer connections lag. Coordinate on geography/timing.	Focuses on long-term redevelopment of selected eco-districts, whereas the proposed project addresses immediate sanitation service gaps in existing ger settlements and PHCs, including areas where redevelopment will not occur within the project timeframe, ensuring interim climate-resilient solutions.
World Bank analytical work: "Challenges and Opportunities for Improving Household Sanitation in the Ger Areas of Ulaanbaatar"	Published 2017 (analysis; Ulaanbaatar ger areas)	Evidence on ger-area sanitation constraints, on-site options, and implementation considerations in cold climates	World Bank (knowledge product)	Ger areas need on-site solutions where sewering is not imminent; cold climate requires technology fit-for-purpose; coordination with city planning is needed	Direct synergy: strengthens rationale for focusing on on-site / non-sewered climate-resilient options and phased piloting. Proposed AF project operationalizes these insights via pilots, scale-up, and standards.	This is analytical and advisory work covering city-wide conditions, without implementation financing; the proposed project focuses on site-specific implementation, piloting, and large-scale deployment of sanitation systems at household and PHC levels.
UNICEF Mongolia: WASH and Climate Change programme (including ger areas)	Ongoing programme framework	Climate-resilient WASH in schools/communities/ger areas, water quality monitoring, hygiene/menstrual health, emergency preparedness	UNICEF with Government counterparts	Behaviour change + resilient infrastructure + community participation are needed; climate impacts can worsen service gaps, so resilience must be mainstreamed	Synergy: joint messaging/behaviour change, disability-inclusive WASH, emergency preparedness; coordinate on standards and monitoring. Proposed AF project adds a strong public health + sanitation service chain focus including HCFs.	Focus is on schools, community WASH, and behaviour change across selected sites, while the proposed project delivers household sanitation systems, PHC infrastructure, and full sanitation service chain management in high-risk ger areas, with a stronger health systems

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						focus.
Action Against Hunger (ACF): Sustainable Sanitation research project	Initiated 2011; Ulaanbaatar peri-urban/ger areas	On-site experiments assessing feasibility and social acceptability of greywater and human waste treatment technologies	ACF with university partners	Technology acceptability and operational feasibility must be tested locally; resource recovery approaches can support sustainability	Synergy: evidence base for technology selection and feasibility testing; can inform the AF project's innovation hub and feasibility/pilot design.	Limited to small-scale experimental pilots in selected locations, whereas the proposed project applies a systematic city-level approach covering multiple ger areas, including feasibility, piloting, and scaling through national systems and standards.
PADEM / WaSH Action Mongolia: WASH in ger districts (latrines + behaviour change)	Completed (18 months; Ulaanbaatar ger districts)	Construction of sealed/unsealed improved latrines, household water security support, WASH training; targets disadvantaged populations	PADEM with local partner WaSH Action Mongolia	Infrastructure must be paired with training and behaviour change; targeting vulnerable groups improves equity outcomes	Synergy: practical lessons on household-level sanitation hardware and training; proposed AF project scales and systematizes through standards, monitoring, and climate resilience criteria. Avoiding duplication by mapping former intervention sites.	Geographically limited to specific pilot districts and short duration, while the proposed project covers a larger number of households (≈1,000) across multiple ger areas, with integrated monitoring, surveillance, and long-term sustainability mechanisms.
Earth Company / Local Solutions: Toilet Education Center + "Let's Change Our Toilets" campaign	2025; Ulaanbaatar ger district	Sanitation awareness, training, behaviour change; promotion of safe/eco-friendly toilets	Local Solutions / Earth Company	Social norms and toilet "taboos" matter; demonstration/education facilities can accelerate acceptance and uptake	Synergy: demand generation, behaviour change and community engagement elements align strongly; proposed AF project can link to education initiatives for adoption and O&M behaviour.	Focuses on awareness and demonstration activities in limited locations without infrastructure investment, whereas the proposed project delivers installation of climate-resilient sanitation systems, service delivery, and health impact interventions at scale.
UNDP–GEF: Green and Inclusive Cities in Mongolia (GEF-8 IP)	Launched April 2026; Ulaanbaatar + Darkhan + Erdenet	Integrate climate/biodiversity into urban planning and budgeting; flood protection, governance reforms	UNDP + GEF with Ministry of Environment and Climate Change	Urban resilience needs stronger governance, planning, financing instruments, and inclusive engagement	Synergy: policy/finance/governance reforms complement proposed AF project's sustainability roadmap and institutional mechanisms	Focuses on multi-city urban planning and governance reforms, whereas the proposed project targets specific ger areas in Ulaanbaatar with direct infrastructure investments in sanitation at household and PHC level.
UN-Habitat ger area upgrading initiatives	Ongoing	Community-led urban upgrading and planning tools	UN-Habitat	Community participation essential for sustainability	Synergy with participatory approaches	Focuses on urban planning and upgrading frameworks, while the proposed project focuses on technical sanitation system implementation and service chain solutions in specific high-risk ger areas.
ADB water supply and wastewater	Ongoing	Water supply and sewer network expansion	ADB	Infrastructure gaps persist	Complementary upstream systems	Focuses on centralized water and sewer systems in serviced or planned

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projects (various)						urban areas, while the proposed project targets on-site sanitation systems in non-sewered and peri-urban ger areas where connections are not feasible in the short term.
WHO/UNICEF WASH in Health Care Facilities initiatives	Ongoing	Guidance and selective improvements of WASH in PHCs	WHO / UNICEF	WASH and IPC are critical in health settings	Direct synergy with PHC component	Focuses mainly on technical guidance and limited upgrades, whereas the proposed project finances upgrading of sanitation infrastructure in ~50 PHCs and integration with surveillance and climate resilience systems.
National sanitation and environmental health programmes	Ongoing	Policy, standards, planning	Government of Mongolia	Implementation gaps remain	Strong alignment	Focused on policy development and regulatory frameworks at national level, while the proposed project provides dedicated financing for implementation, infrastructure deployment, and service delivery systems at household and PHC levels.

Regional initiatives

- **World Bank regional work on sanitation in cold and challenging environments (Central Asia/East Asia)**
  - **Relevance:** Offers technical options and cost frameworks for cold climates.
  - **No duplication**: AF project translates regional guidance into site-specific design, piloting and scale-up in Ulaanbaatar.
- **UNICEF regional programming on climate-resilient WASH (East Asia and Pacific)**
  - **Relevance**: Behaviour change, inclusivity, and resilience principles.
  - **No duplication**: AF project focuses specifically on sanitation system performance, health outcomes, and governance in ger areas and PHC facilities.

102. The proposed AF project is complementary and non-duplicative, as it targets on-site and decentralized, climate-resilient sanitation and public-health outcomes in unserved ger areas and primary health care facilities, while other initiatives primarily finance large-scale infrastructure, urban renewal, or behaviour-change programmes. Coordination mechanisms will ensure geographic alignment and knowledge sharing, avoid overlap and maximizing synergies.

G. If applicable, describe the learning and knowledge management component to capture and disseminate lessons learned.

103. Learning and knowledge management are integrated across the entire project cycle to support continuous

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improvement, capacity building, and long-term sustainability.

104. The project will implement a structured Learning and Knowledge Management (LKM) approach across all components, with clearly defined activities, targets, periodicity, and responsibilities:

Baseline and assessment knowledge products (Component 1)

- Activities: Development of assessment reports, technical criteria, and documentation of climate risks and sanitation system performance
- Targets: ≥1 comprehensive assessment report; ≥1 technical criteria document; ≥2 validation workshops
- Periodicity: One-time (Year 1) with validation updates as needed
- Responsible entities: WHO (lead), Ministry of Health, Ministry of Environment and Climate Change, and technical working group

Innovation, feasibility, and pilot learning (Component 2 and 3a)

- Activities: Documentation of feasibility studies, pilot performance reports, and community feedback
- Targets: ≥3 feasibility study reports; pilot evaluation reports; ≥3 documented case studies of sanitation technologies
- Periodicity: Annual reporting during Years 1–3; seasonal monitoring in pilot phase
- Responsible entities: WHO, innovation hub, academic institutions, and technical partners

Capacity-building and training documentation (Component 2 and 3)

- Activities: Development of training materials, guidelines, and training reports
- Targets: ≥6 training sessions documented; training materials standardized and compiled; ≥500 individuals trained
- Periodicity: Continuous throughout project implementation
- Responsible entities: WHO, training institutions, Ministry of Health, and sectoral agencies

Monitoring, and knowledge generation (Component 3 and 4)

- Activities: Routine monitoring reports, surveillance data analysis, and technical assessment
- Targets: Routine monitoring reports (at least annually); 1 mid-term synthesis; 1 technical assessment report
- Periodicity: Continuous monitoring; mid-term and endline evaluation
- Responsible entities: WHO (lead), national institutions, and project implementation unit

Knowledge dissemination and sharing

- Activities: Development of policy briefs, technical guidance, and national dissemination events; operation of digital knowledge platform
- Targets: ≥3 knowledge products; ≥1 national dissemination workshop; operational digital platform
- Periodicity: Continuous dissemination; at least one major dissemination event at project completion
- Responsible entities: WHO, Ministry of Health, and partner institutions

105. Knowledge generation will be supported through multiple methods, including surveys, interviews, focus group

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discussions, field observations, and participatory monitoring. These will capture lessons from policymakers, health workers, engineers, and households, as well as document performance, usability, and behavioural changes associated with climate-resilient sanitation systems. Outputs will include assessment reports, case studies, monitoring reports, and policy-relevant evidence that inform adaptive implementation and future investments.

106. A knowledge-sharing digital platform, hosted and led by **WHO Mongolia** will serve as the central repository for technical materials, training content, monitoring data, and lessons learned. Knowledge tracking will be continuous throughout all components, with structured synthesis at key milestones, including mid-term and final evaluations. The technical working group will support validation of findings and ensure their integration into national policies and technical guidance.
107. **The sustainability of knowledge** generated through the project will be ensured through institutional, operational, and financial arrangements integrated into national systems. Knowledge products—including technical guidelines, training materials, monitoring tools, and policy briefs—will be formally adopted and integrated into the routine functions of relevant ministries and agencies, particularly the Ministry of Health, Ministry of Environment and Climate Change, and urban development authorities.
108. The digital knowledge platform established under the project will be embedded within existing government information systems, with designated national institutions responsible for its maintenance and updating. Capacity-building activities will be institutionalized through integration into pre-service and in-service training programmes for health workers, engineers, and environmental officers, in collaboration with academic institutions.
109. Financial sustainability will be supported through integration of LKM-related functions into national and local government budgets, including continued operation of training programmes, monitoring systems, and knowledge platforms. The sustainability roadmap developed under Component 3c will define roles, responsibilities, and financing mechanisms for continued knowledge generation, dissemination, and use.
110. These measures ensure that knowledge generated by the project is not limited to project duration but is continuously utilized, updated, and scaled within national systems, supporting long-term climate resilience and sectoral transformation**.**
111. **Continuous feedback mechanisms** will ensure that learning remains adaptive and relevant. Training effectiveness will be assessed through pre- and post-training evaluations, participant feedback, and follow-up monitoring of practical application. Community feedback, particularly from women and vulnerable groups, will be systematically collected and used to refine training materials, technology design, and implementation approaches. This iterative process ensures that knowledge management not only documents experience but actively improves project performance and impact over time.

H. Describe the consultative process, including the list of stakeholders consulted, undertaken during project preparation, with particular reference to vulnerable groups, including gender considerations, in compliance with the Environmental and Social Policy and Gender Policy of the Adaptation Fund.

112. Project preparation involved ministries of health, environment and urban development, provincial/district authorities, technical and academic institutions. The concept note is the result of the discussions held at the national and local levels.
113. For instance, urgent actions to advance sanitation in climate risk prone areas especially in ger area of Ulaanbaatar city were discussed at the national meeting to launch Solutions for Health initiative jointly led by MOH and WHO and organized in collaboration with Ministry of Environment and Climate Change, Ministry of Urban Development, Construction and Housing, Ministry of Education, National Center for Public, Governor's Office of UB City, Department of Health, National Regulatory Committee for Water, Water Agency, UN HABITAT Mongolia. In the meeting total of 50 officials and decision makers participated. The Solutions for Health Initiative call for an urgent multisectoral action to protect the health and well-being of the population by addressing, and to the extent possible eliminating the environmental risk factors that impact health.

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114. The urgency on addressing sanitation was the subject of consultation in the National Urban Forum co-organized by the Ministry of Urban Development, Construction and Housing, UN-HABITAT, and WHO, with participation of the Ministry of Health, Ministry of Environment and Climate Change, and governors' offices of the city and provinces.
115. Moreover, over the past three years, the issues related to climate resilient sanitation were discussed during the series of consultative meetings held within the multisectoral technical working group on Water, Sanitation and Hygiene (WASH) and Climate Change, established jointly by the Ministers of Health and Environment through Orders #A/482 and #A/657 in 2023.

Table 8. Summary of stakeholders' discussions

Consultation / Meeting	Participants (total & sex-disaggregated)	Participants (incl. vulnerable groups / CSOs)	Background on inclusion of vulnerable groups	Key issues discussed & agreements	Specific outputs resulting from consultations	How inputs were incorporated into project design (incl. gender & vulnerable groups)
National meeting on "Solutions for Health" initiative (MOH–WHO)	50 participants (25 women, 25 men)	Government ministries, WHO, city authorities; limited CSO participation	High-level policy consultation; no direct vulnerable groups, but representatives from sectors responsible for vulnerable populations were included	Urgent need to address sanitation–climate–health nexus; importance of multisectoral action	Agreement on prioritization of climate-resilient sanitation under national initiative	Led to multisectoral project design, integrating health, environment, and urban sectors; inclusion of governance and coordination mechanisms
National Urban Forum (UN-Habitat, MoUDCH, WHO)	60 participants (27 women, 33 men)	Government, municipalities, UN agencies, some CSOs	Included civil society representatives and urban stakeholders; indirect representation of vulnerable communities	Need for integrated urban upgrading and addressing sanitation gaps in ger areas	Recommendation to integrate sanitation into urban planning frameworks	Informed alignment with urban development policies and inclusion of planning-sensitive sanitation approaches
Technical working group on WASH & Climate Change	25 participants (13 women, 12 men)	Government technical agencies, WHO, research institutions	Limited CSO participation, but includes sector experts working on vulnerable populations	Need for climate-resilient sanitation technologies, monitoring systems, and standards	Agreement on need for evidence-based technologies and standards	Directly informed Component 1 (assessment), Component 2 (innovation hub), and standards development under Component 3
Consultations for Environmental Health Action Plan (MOH-led)	30 participants (15 women, 15 men)	Government, academia, NGOs	NGOs included representation of vulnerable and low-income groups	Prioritization of sanitation, environmental health risks, and standards	Agreement on national priorities for sanitation and environmental health	Ensured alignment with national policies and standards, including inclusion of health risk reduction and environmental components
Community-level discussions in ger areas (field visits)	50 participants (28 women, 22 men)	Community members, including women, caregivers, low-income households	Direct participation of vulnerable groups including women, caregivers, and low-income households	Unsafe pit latrines, flooding, freezing, affordability, safety and dignity concerns	Identification of priority needs: affordable, safe, and climate-resilient sanitation solutions	Led to targeting of vulnerable households, inclusion of affordability criteria, and gender-sensitive technology design (safety, privacy)

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Engagement with health workers (PHC level)	30 participants (18 women, 12 men)	Health facility staff (majority women)	Frontline workers (predominantly women), representing occupationally vulnerable group	Need for improved sanitation and IPC in PHCs; impact on working conditions	Agreement on prioritizing PHC sanitation improvements	Informed inclusion of 50 PHCs, IPC strengthening, and improved working conditions for female health workers

I. Provide justification for funding requested, focusing on the full cost of adaptation reasoning.

116. The funding requested is essential to cover the full costs of climate adaptation for WASH in Mongolia's Ger areas and PHC facilities in selected provinces. Ger communities are among the most vulnerable, facing multiple, overlapping risk factors including poor sanitation, inadequate housing, energy poverty, and exposure to extreme climate and weather hazards such as severe cold, snowstorms, and flash flooding.
117. The project will develop and implement ground-based, innovation-driven climate-resilient sanitation solutions through active engagement with local communities and stakeholders representing different sectors, including health, environment, climate change, engineering, urban development. This inclusive, participatory approach is critical to ensuring sustainability and ownership during the project implementation and beyond.
118. By systematically addressing the sanitation challenges in Ger areas and selected provinces, the project targets socially and financially vulnerable populations who are disproportionately exposed to climate risks. It will also generate scalable solutions, standards, guidelines and policy insights to support the nationwide replication of climate-resilient and locally applicable sanitation solutions in ger area and selected provinces. The project is cost-effective and delivers sustainable benefits, including reduced health costs, lower environmental remediation and infrastructure repair expenses and strengthened community resilience.
119. Full cost funding is justified because the project addresses adaptation costs that would not be financed under business-as-usual investments. Existing infrastructure programmes primarily focus on long-term urban development or network expansion, and do not cover the additional costs of climate-resilient sanitation systems, adaptation-specific design, piloting, community engagement, and health-system integration required to ensure functionality under extreme cold and flooding. Without AF support, these adaptation components—particularly feasibility testing, resilience features, behaviour change, monitoring, and system-level integration—would not be implemented, leading to continued system failure, environmental contamination, and health risks.
120. In terms of adaptation, the project directly contributes to reducing climate vulnerability and increasing adaptive capacity through:

    1. designing sanitation systems that function under extreme cold and flood conditions;
    2. reducing exposure to contamination and climate-sensitive diseases; and
    3. strengthening health system resilience, surveillance, and governance mechanisms.

121. These actions address both acute shocks (e.g. floods, freezing) and chronic stresses (e.g. poverty, inadequate infrastructure), ensuring sustained adaptation benefits.
122. From a cost perspective, the selected approach is more effective than alternative options. Centralized sewer expansion, while essential in the long term, is high-cost, water-intensive, and not immediately feasible across all ger areas and selected provinces, particularly where water supply and infrastructure are limited. In contrast, the project prioritizes climate-resilient, decentralized and on-site sanitation solutions, which have lower life-cycle costs, can be deployed more rapidly, and are more suitable for cold climates when supported by appropriate design, operation, and maintenance systems. Approximate cost comparison indicates that traditional pit latrines have the lowest upfront cost (around USD 150–400 per household) but also the highest long-term failure, contamination, and health costs; conventional improved pit or simple septic options cost around USD 1500–5000 per household but remain only partially resilient to freezing and flooding; and centralized sewerage expansion may cost around USD 12,000 or more per household connection and is not feasible in the short to medium term for many ger areas. By comparison, the proposed climate-resilient decentralized model represents an investment of around USD 7,000 per target household

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and around USD 36,000 per target PHC, but delivers much greater adaptation value, lower failure risk, and total annual economic benefits estimated at approximately USD 1.045–2.455 million.

123. Quantitative proxies further support cost-effectiveness: national estimates indicate that poor sanitation results in significant annual economic losses. Even a modest reduction in these losses through the project's interventions yields substantial economic and social returns over time. In addition, the phased approach (assessment → feasibility → pilot → scale-up) reduces the risk of maladaptation, ensuring that investments are directed only to technologies proven to be technically, socially, and economically viable.
124. Overall, the project delivers high adaptation value per unit cost by combining targeted infrastructure investments with enabling systems (governance, monitoring, behaviour change), and by ensuring that benefits are sustainable, scalable, and resilient under future climate conditions.

J. Describe how the sustainability of the project/programme outcomes has been taken into account when designing the project/programme.

125. The sustainability of the project is ensured through an integrated approach that addresses **technical, institutional, financial, social, environmental, and scaling dimensions simultaneously**, ensuring that benefits continue beyond the project lifetime and contribute to long-term climate resilience in ger areas.
126. From a **technical perspective**, sustainability is achieved through the selection and validation of sanitation technologies that are specifically designed for Mongolia's extreme climatic conditions, including prolonged freezing temperatures and periodic flooding. Technologies are identified and tested through feasibility assessments and pilot implementation to ensure that only systems that are technically viable, locally appropriate, and resilient to climate stress are deployed at scale. These systems are expected to maintain functionality rates of at least **80–90% under climate stress conditions**, significantly reducing the risk of failure compared to traditional pit latrines. Technical sustainability will also be supported through the development of a reliable local supply chain for spare parts, consumables, repair services and technical maintenance. During feasibility assessment, piloting and scale-up, the project will identify locally available materials, suppliers and service providers and assess their capacity to provide timely support during extreme winter and flood seasons. The project will promote supplier prequalification, local technician training, maintenance protocols, and seasonal preparedness planning to reduce the risk of service interruption caused by procurement delays, material shortages, transport constraints, freezing conditions or floods. This will help ensure that households and primary health care facilities can access spare parts and maintenance services when they are most needed.
127. Institutional sustainability is ensured by embedding project outputs into **national and provincial/district systems**. The project supports the development and adoption of **national standards, technical guidelines, monitoring systems, and surveillance mechanisms** for climate-resilient sanitation. Capacity is strengthened across relevant ministries, including health, environment, and municipal authorities, as well as inspection and regulatory bodies. These institutions are equipped to plan, regulate, monitor, and scale sanitation services beyond the duration of the project. By integrating these functions into existing governance structures, the project ensures that climate-resilient sanitation becomes part of routine policy, planning, and service delivery rather than a one-time intervention.
128. Financial sustainability is addressed through a focus on **reduced lifecycle costs and improved efficiency of investment**. While climate-resilient sanitation systems may require higher upfront investment, they significantly reduce recurring costs associated with system failure, repair, and replacement. Avoided infrastructure costs are estimated at approximately **USD 100,000–150,000 per year**, while additional savings from reduced treatment costs and productivity losses further improve economic viability. The project also supports the development of a **costed national scale-up roadmap**, enabling continued financing through public budgets and improving allocation efficiency. By reducing the long-term economic burden of poor sanitation, the project contributes to more sustainable public and household financing over time.
129. The project will develop and formally endorse a costed Sustainability and Scale-Up Roadmap that establishes long-term financing mechanisms, institutional responsibilities, and operational arrangements for climate-resilient sanitation services. The roadmap will define sustainable operation and maintenance financing for household and

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PHC sanitation systems, drawing on local government budgets, sector financing, user contributions based on ability to pay, and targeted support for vulnerable households. The project will strengthen the entire sanitation service chain, including fecal sludge management, through improved arrangements for containment, emptying, transport, treatment, and safe disposal. Sustainable service delivery models will be developed in collaboration with local authorities, communities, and private-sector operators to ensure continuity beyond project completion. Clear roles and responsibilities for operation, maintenance, monitoring, and oversight will be assigned to local governments, health authorities, and PHC facilities. Affordability and equity considerations will be embedded through targeted support measures and monitoring mechanisms to ensure that poor and vulnerable households are not left behind. The project will also promote the integration of climate-resilient sanitation into national and subnational policies, plans, standards, and budgeting frameworks. Institutional commitments and budget requirements for sustaining and scaling interventions will be identified and reflected in the roadmap. Formal endorsement of the roadmap will support continued investment and implementation after project closure. Detailed sustainability arrangements, financing modalities, and implementation mechanisms will be further developed through project assessments and stakeholder consultations and presented at the Full Proposal stage.Social sustainability is ensured through **community participation, behavioural change, and inclusive design**. Communities are actively involved in technology selection, pilot validation, and feedback processes, ensuring ownership and acceptance of sanitation solutions. Behaviour change interventions support **correct and sustained use of systems**, with expected adoption rates of at least **80% among target households**. The project prioritizes vulnerable groups, including women, low-income households, older persons, and persons with disabilities. Approximately **2,000 women and girls** are expected to benefit directly, and at least **55% of participants in training and community engagement activities** will be women. Improved sanitation access also reduces time and care burdens, with estimated savings of **365,000–730,000 hours annually**, particularly benefiting women and caregivers. These measures ensure high uptake and sustained use of sanitation systems.

130. Environmental sustainability is achieved through significant reductions in contamination and improved management of sanitation-related waste. The project will replace or upgrade approximately **1,000 unsafe sanitation systems**, effectively eliminating or controlling around **1,000 sources of soil and groundwater contamination**. It is expected that **700–900 households** will be protected from sanitation failure during flood and freezing events, representing a substantial reduction in environmental exposure. In targeted areas, contamination hotspots may be reduced by approximately **30–50%**, while improved containment and waste handling contribute to an estimated **10–20% reduction in sanitation-related methane emissions**. These impacts contribute to improved environmental quality and increased resilience to climate shocks.

131. Environmental sustainability will be further strengthened through safeguards covering the full sanitation service chain, including safe containment, emptying, desludging, transport, treatment, reuse or final disposal of faecal sludge and wastewater by-products. The project will establish clear environmental and public health procedures for pathogen management, safe handling of faecal sludge, prevention of leakage and overflow, management of contaminated soil where encountered, and environmentally sound disposal or reuse options where technically feasible and compliant with national standards. Environmental safeguards will also consider lifecycle greenhouse gas (GHG) emissions, including methane and other emissions associated with sanitation systems, operation, treatment, transport and disposal processes. These safeguards will be integrated into environmental and social screening procedures, environmental and social management plans, technical specifications, monitoring tools and capacity-building packages to ensure that climate-resilient sanitation systems reduce contamination and health risks without creating new environmental burdens.

132. Sustainability of health outcomes is ensured through integration of sanitation improvements into the **primary health care system**. The project will upgrade sanitation services in **50 primary health care facilities**, strengthening infection prevention and control and improving service delivery. This reduces long-term health system burdens, including reduced incidence of sanitation-related diseases and lower outbreak risk. Improved sanitation in health facilities also benefits larger catchment populations, extending the impact beyond direct users.

133. Scalability and long-term sustainability are further reinforced through the development of systems that enable replication beyond the initial project scope. The project supports the development of a **national scale-up framework**, including policy integration, technical guidance, training materials, and monitoring tools. These

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outputs are designed to enable expansion of climate-resilient sanitation to additional ger areas without requiring the same level of initial investment. The value of early replication is estimated at approximately **USD 100,000–300,000 annually**, reflecting the potential for broader uptake of validated solutions. Indirect benefits extend to **up to 715,000 residents**, demonstrating that the project has system-wide impact beyond the initial target population.

134. To support long-term market viability and nationwide expansion, the project will also assess and strengthen private-sector business models for climate-resilient sanitation systems and services. This will include identifying the roles that local enterprises, suppliers, installers, desludging operators, maintenance providers, engineering firms and manufacturers can play in technology supply, installation, operation and maintenance, sludge management, repair services and after-sales support. The sustainability roadmap will assess incentives that can encourage private-sector participation, including supplier prequalification, performance-based service arrangements, access to technical standards and training, partnerships with local governments, and opportunities for local manufacturing or assembly of appropriate system components. By strengthening local sanitation markets and establishing viable service delivery mechanisms, the project will reduce dependency on project financing and create sustainable conditions for continued investment, operation and future scale-up of climate-resilient sanitation solutions.

135. Overall, the project ensures sustainability by moving beyond isolated infrastructure investments to a **system-based adaptation approach**, where technical performance, institutional capacity, financial viability, social acceptance, environmental protection, and scalability are addressed together. As a result, the project establishes the conditions for sustained delivery of climate-resilient sanitation services, ensuring that benefits continue to generate economic, social, and environmental value well beyond the project lifetime. These additional measures ensure that sustainability is not limited to infrastructure durability, but also encompasses the financing, service delivery, supply-chain, environmental safeguard and market systems required to maintain climate-resilient sanitation services over the long term.

K. Provide an overview of the environmental and social impacts and risks identified as being relevant to the project/programme.

137. The project may face risks related to construction activities, including temporary air and noise pollution and dust generation. Some low-income households may face challenges in maintaining and operating the technology beyond the project period, unless sustainable ownership mechanisms are effectively established.

138. To address these concerns, the project will implement environmental and social management plans focusing on climate adaptation, pollution prevention, inclusive design, affordability mechanisms, and systematic capacity building.

139. Based on this initial screening, the identified risks are considered small-scale, reversible, and manageable through appropriate mitigation measures. Accordingly, the project has been classified as Category B**.** This classification will be reconfirmed in Year 1 through an Environmental and Social Impact Assessment, and a comprehensive Environmental and Social Management Plan will be developed at the full funding proposal stage.

Table 9. Environmental and social impacts and risks

Checklist of environmental and social principles	**No further assessment required for compliance**	**Potential impacts and risks – further assessment and management required for compliance**
Compliance with the Law	X	**Risk:** Moderate: There is a risk that required national permits/approvals (EIA screening, construction permits) are not obtained prior to work. **Mitigation measure**: Obtain EIA screening decisions and permits before work; include compliance clauses in contracts; supervision and audit trail.
Access and Equity	X	**Risk:** Moderate: There is a risk that vulnerable households are unintentionally excluded or perceive selection as unfair.

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		Mitigation measure: Transparent vulnerability-based criteria; community validation; grievance mechanism; monitor equity indicators and correct gap.
Marginalized and Vulnerable Groups	X	**Risk:** Moderate: There is a risk that persons with disabilities, older persons, or female-headed households face barriers to access or usability of facilities. **Mitigation measure**: Apply universal design/accessibility criteria; targeted outreach; prioritize vulnerable households; adapt designs based on feedback.
Human Rights	X	**Risk**: Low. There is a risk that consultation is insufficient, or complaints are not addressed, affecting right to information/participation **Mitigation measure**: Implement SEP; maintain GRM with response timelines; document consultations and resolutions.
Gender Equality and Women's Empowerment	X	**Risk:** Moderate: There is a risk that women's needs (privacy, safety, usability) are not reflected in technology choice and that women carry increased O&M burden **Mitigation measure:** Women's participation targets; safety/privacy criteria in design; sex-disaggregated indicators; tailored training and feedback loops.
Core Labour Rights	X	**Risk**: Moderate: There is a risk that contractors do not comply with labour and OSH requirements, exposing workers to harm. **Mitigation measure:** Include labour/OSH clauses; PPE; toolbox talks; incident reporting; supervision and corrective actions
Indigenous Peoples		There is no indigenous people in Mongolia**.**
Involuntary Resettlement	X	**Risk:** Low**:** There is a risk that site requirements could create pressure for relocation or loss of access if not managed carefully **Mitigation measure**: Only install within existing household/PHC plots; written confirmation and consent; exclude sites requiring land acquisition/resettlement
Protection of Natural Habitats	X	**Risk:** Low: there is a risk of minor disturbance if any sites are near sensitive areas (unlikely in urban ger settings, but possible in provinces) **Mitigation measure:** Exclude sensitive sites; limit works to existing disturbed areas; restore any disturbed ground
Conservation of Biological Diversity	X	**Risk:** Low: there is a risk of negligible biodiversity impacts; risk could arise only if sites are inadvertently near sensitive areas. **Mitigation measure**: Avoid sensitive areas; apply good construction practice; manage waste and runoff.
Climate Change	X	**Risk:** Moderate: There is a risk that selected technologies are not resilient to extreme cold/flooding (maladaptation), increasing future vulnerability. **Mitigation measure:** Phased approach (pilot→scale); performance monitoring across seasons; adjust designs; contingency planning.
Pollution Prevention and Resource Efficiency	X	**Risk:** Moderate: There is a risk of pollution from improper waste handling (construction waste, fecal sludge, contaminated soil) and inefficient resource use **Mitigation measure:** Proper waste segregation/disposal; safe handling protocols; spill prevention; contractor compliance checks.
Public Health	X	**Risk:** Moderate: There is a risk of temporary increased exposure during works or if systems fail due to poor O&M, increasing contamination and disease risk. **Mitigation measure:** Worksite hygiene controls; IPC measures in PHCs; user training; routine functionality checks; link to surveillance indicators.
Physical and Cultural Heritage	X	**Risk:** Low: There is a risk of chance during excavation (low probability) **Mitigation measure**: implement chance-find procedure; stop—work protocol; notify authorities; contractor training.
Lands and Soil Conservation	X	**Risk:** Moderate: There is a risk of soil disturbance and localized erosion/contamination during excavation, especially in flood-prone locations **Mitigation measure:** Limit excavation footprint; proper backfilling; erosion control; drainage design; safe disposal of contaminated soil if encountered

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PART III: IMPLEMENTATION ARRANGEMENTS

Demonstrate how the project/programme aligns with the Results Framework of the Adaptation Fund

Table 10. Alignment of project objectives and outcomes with the Adaptation Fund Results Framework

Project Outcomes	Project Outcome Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
Outcome 1.1: Improved institutional capacity to identify and address climate-related sanitation and public health risks, and to select climate-resilient sanitation technologies based on validated technical, cost-effectiveness, scalability, and public health criteria	- Indicator 1.1.1: Assessment findings referenced in ≥2 national/local planning documents by project end -Indicator 1.1.2: Priority sanitation-related public health risks identified, assessed, and incorporated into the validated assessment report and technology selection criteria by end of Year 1. - Indicator 1.1.3: Technical and public health criteria formally adopted for sanitation technology selection	Outcome 1: Reduced exposure to climate-related hazards and threats Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses	Indicator 1: People using climate-related threat and hazard information (*[# of people, by sex, by sector, and by hazard]* Indicator 2: Institutions with strengthened capacity to understand and better address climate risks and resilience *[# of institutions, disaggregated by scale, by sector, and by type of institution]*	120,000 80,000
Outcome 2.1: Availability of technically feasible, context-appropriate, and scalable climate-resilient sanitation solutions for cold- and flood-prone areas, with improved stakeholder capacity to identify and appraise suitable options -	Indicator 2.1.1: ≥3 sanitation technologies validated as feasible - Indicator 2.1.2: ≥3 technologies approved for piloting by mid-Year 2	Outcome 8: Innovation for effective, long-term adaptation to climate change · accelerated, encouraged, and enabled to scale up Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses	Indicator 8A: Innovations successfully reaching scale up that demonstrate local innovation participation and/or local innovation benefit *[# of innovations*] Indicator 2: Institutions with strengthened capacity to understand and better address climate risks and resilience *[# of institutions, disaggregated by scale, by sector, and by type of institution]*	650,000 350,000

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Outcome 3.1. In pilot areas, increased household and health system resilience to climate shocks through year-round access to safe, functional, and climate-resilient sanitation systems, supported by improved operation, maintenance, and self-monitoring practices	- Indicator 3.1.1: ≥90% of pilot households and 100% PHC facilities have functional sanitation systems year-round - Indicator 3.1 2: ≥80% of households and 100% of PHC facilities apply correct operation and maintenance practices	Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses Outcome 4: Increased adaptive capacity within relevant development sector services and infrastructure assets	Indicator 2: Institutions with strengthened capacity to understand and better address climate risks and resilience *[# of institutions, disaggregated by scale, by sector, and by type of institution]* Indicator 4 (Core Indicator 3): Physical assets improved or constructed to withstand climate variability and change *[disaggregated by km of linear infrastructure and # of point infrastructure, and by sector]*	150,000 250,000
Outcome 3.2. Improved access to safe, climate-resilient sanitation for households and primary health care facility users, reduced exposure to faecal contamination and climate-sensitive diseases, and strengthened health system resilience through improved infection prevention and control, operation, monitoring, and surveillance	- Indicator 3.2.1: 1,000 households with access to climate-resilient sanitation by project end - Indicator 3.2.2: 50 primary health care facilities with climate-resilient sanitation by project end - Indicator 3.2.3: ≥20% reduction in diarrhoeal disease incidence in target areas/facilities from baseline to endline - Indicator 3.2.4: Routine monitoring and climate-informed surveillance integrated and functioning	Outcome 4: Increased adaptive capacity within relevant development sector services and infrastructure assets Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses	Indicator 4 (Core Indicator 3): Physical assets improved or constructed to withstand climate variability and change *[disaggregated by km of linear infrastructure and # of point infrastructure, and by sector]* Indicator 2: Institutions with strengthened capacity to understand and better address climate risks and resilience *[# of institutions, disaggregated by scale, by sector, and by type of institution]*	8,800,000 400,000

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		Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes	Indicator 3B: People implementing new or improved adaptation actions *[# of people, disaggregated by sex and by vulnerable groups]*	588,000
		Outcome 1: Reduced exposure to climate-related hazards and threats	Indicator 1: People using climate-related threat and hazard information *[# of people, by sex, by sector, and by hazard]*	300,000
Outcome 3.3. Strengthened national and subnational capacity to adopt, finance, and scale innovation-driven climate-resilient sanitation systems, supported by an endorsed sustainability roadmap and long-term monitoring framework.	- Indicator 3.3.1: Costed roadmap formally endorsed - Indicator 3.3.2: ≥2 policy or budget commitments adopted for expansion	Outcome 7: Improved policies and regulations that promote and enforce resilience measures	Indicator 7: Policies, strategies, and/or plans adopted, implemented, and/or enforced that integrate climate risk and resilience considerations *[#, disaggregated by scale, by policy step, and by sector]*	400,000
Outcome 4.1 Evidence and lessons learned on climate-resilient sanitation are documented, disseminated, and used to inform future investments, programme design, and replication.	- Indicator 4.1: Project evidence used in ≥2 policy/programme design processes - Indicator 4.2.: ≥1 national dissemination exercise completed and documented	Outcome 8: Innovation for effective, long-term adaptation to climate change accelerated, encouraged, and enabled to scale up	Indicator 8A: Innovations successfully reaching scale up that demonstrate local innovation participation and/or local innovation benefit *[# of innovations]*	150,000
		Outcome 3: Strengthened awareness and ownership of adaptation and climate	Indicator 3A: People with strengthened awareness of climate change risks and how to	150,000

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		risk reduction processes	better address them *[# of people, disaggregated by sex, by vulnerable groups, and by sector]*	
Total outcome-level grant amount				**12,388,000**
Project Output (s)	**Project output Indicator(s)**	**Fund Output**	**Fund Output Indicator**	**Grant Amount (USD)**
Output 1.1: Comprehensive assessment of climate risks, sanitation systems, and public health impacts in ger areas of Ulaanbaatar and selected provinces	- 1 integrated assessment report completed, validated and endorsed by end of Year 1 - 1 set of technical, cost-effectiveness, scalability and public health criteria for climate-resilient sanitation technologies developed and adopted - ≥2 validation workshops conducted	Output 1.1: Risk and vulnerability assessments conducted and updated	Indicator 1.1: Risk and vulnerability assessments conducted or updated *[# of assessments, by sector and by scale]*	120,000
Output 1.1: Comprehensive assessment of climate risks, sanitation systems, and public health impacts in ger areas of Ulaanbaatar and selected provinces		Output 2.1: Strengthened capacity of institutions to understand and better address climate risks	Indicator 2.1: Institutions supported to strengthen capacity to understand and address climate risks and resilience *[# of institutions, disaggregated by scale, by sector, and by type of institution]*	80,000
Output 2.1: Climate- resilient sanitation solutions identified and validated through technological testing/assessment/feasibility studies	- 1 innovation hub established and operational - ≥3 sanitation technology options assessed - ≥3 technical, economic and social feasibility studies completed - ≥6 training, consultation sessions conducted - Technologies validated by mid-Year 2	Output 8.1: Innovations identified and piloted that collectively enhance local innovation capacity and contribute to the development of local, national and regional adaptation innovation ecosystems	Indicator 8.1A: Innovations identified that demonstrate local innovation participation and/ or local innovation benefit *[# of innovations]*	650,000
Output 2.1: Climate- resilient sanitation solutions identified and validated through technological testing/assessment/feasibility studies		Output 2.1: Strengthened capacity of institutions to understand and better address climate risks	Indicator 2.1: Institutions supported to strengthen capacity to understand and address	350,000

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			climate risks and resilience *[# of institutions, disaggregated by scale, by sector, and by type of institution]*	
Output 3.1: Climate-resilient sanitation technologies piloted in selected households and PHC facilities	- Technical and operational tools for piloting developed - 60 pilot sanitation systems at households installed and operational -Two pilot sanitation systems at PHC facilities installed and operational - ≥240 household members trained on operation, maintenance and self-monitoring	Output 4.1: Vulnerable development sector services and infrastructure assets strengthened in response to climate change impacts, including variability	Indicator 4.1: Development sector services strengthened to respond to climate variability and change *[# of sector services, disaggregated by sector and by scale]*	250,000
Output 3.1: Climate-resilient sanitation technologies piloted in selected households and PHC facilities		Output 2.1: Strengthened capacity of institutions to understand and better address climate risks	Indicator 2.1: Institutions supported to strengthen capacity to understand and address climate risks and resilience *[# of institutions, disaggregated by scale, by sector, and by type of institution]*	150,000
Output 3.2: Access to climate-resilient sanitation scaled up in households and health care facilities	- 1,000 households and 50 primary health care facilities equipped with climate-resilient sanitation systems - ≥3 national standards/guidelines developed or updated - Monitoring and climate-informed surveillance systems operational - ≥500 professionals trained - ≥80% sustained use of installed sanitation systems	Output 4.1: Vulnerable development sector services and infrastructure assets strengthened in response to climate change impacts, including variability	4Indicator 4.1: Development sector services strengthened to respond to climate variability and change *[# of sector services, disaggregated by sector and by scale]*	7,000,000
Output 3.2: Access to climate-resilient sanitation scaled up in households and health care facilities		Output 4.1: Vulnerable development sector services and infrastructure assets strengthened in response to climate change impacts, including variability	Indicator 4.1: Development sector services strengthened to respond to climate variability and change *[# of sector services, disaggregated by sector and by scale]*	1,800,000

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Output 3.2: Access to climate-resilient sanitation scaled up in households and health care facilities		Output 2.1: Strengthened capacity of institutions to understand and better address climate risks	Indicator 2.1: Institutions supported to strengthen capacity to understand and address climate risks and resilience *[# of institutions, disaggregated by scale, by sector, and by type of institution]*	400,000
Output 3.2: Access to climate-resilient sanitation scaled up in households and health care facilities		Output 3.2: Strengthened capacity of national and subnational stakeholders and entities to capture and disseminate knowledge and learning	Indicator 3.2: Climate resilience knowledge products and/or tools developed and shared with stakeholders *[# of products/tools, by sector]*	588,000
Output 3.2: Access to climate-resilient sanitation scaled up in households and health care facilities		Output 1.2: Targeted population groups covered by warning and advisory services for climate related hazards and threats	Indicator 1.2A (Core Indicator 2): Early warning systems established or improved *[# of systems, disaggregated by hazard and by scale]*	300,000
Output 3.3: Sustainability roadmap and scale-up framework developed and adopted	- 1 costed national sustainability and scale-up roadmap developed and endorsed before project completion - ≥2 national policies or national/provincial/district plans integrate climate-resilient sanitation - 1 monitoring and evaluation framework for long-term tracking established	Output 7: Improved integration of climate-resilience strategies into country development plans	Indicator 7.1A (Core Indicator 6): Policies, strategies, and/or plans developed or adjusted to integrate climate risk and resilience considerations *[# of policies, strategies, and/or plans, disaggregated by scale and by sector]*	150,000
Output 3.3: Sustainability roadmap and scale-up framework developed and adopted		Output 7: Improved integration of climate-resilience strategies into development plans	Indicator 7.1B: Policies, strategies, and/or plans formulated through the participation of one or	250,000

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			more vulnerable groups *[# of policies, strategies, and/or plans, disaggregated by scale, by sector, and by vulnerable groups]*	
Output 4.1: Lessons learned documented and disseminated nationally	- 1 final technical assessment completed - ≥3 knowledge products developed and disseminated - ≥1 national dissemination event conducted	Output 8.2: Innovations identified and piloted which build the adaptation innovation evidence base and institutional capacity	Indicator 8.2: Innovation-focused knowledge products disseminated and/or learning events facilitated that support and enable innovation capacity at a local, national, and/or regional level *[# of knowledge products disseminated and/or learning events facilitated*)	150,000
Output 4.1: Lessons learned documented and disseminated nationally		Output 3.2: Strengthened capacity of national and subnational stakeholders and entities to capture and disseminate knowledge and learning	Indicator 3.2: Climate resilience knowledge products and/or tools developed and shared with stakeholders *[# of products/tools, by sector]*	150,000
Total output level grant amount				12,388,000

[1] The AF utilized OECD/DAC terminology for its results framework. Project proponents may use different terminology, but the overall principle should still apply

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PART IV: ENDORSEMENT BY GOVERNMENT AND CERTIFICATION BY THE IMPLEMENTING ENTITY

PART IV: ENDORSEMENT BY GOVERNMENT AND CERTIFICATION BY THE IMPLEMENTING ENTITY

A.Record of endorsement on behalf of the government[2] *Provide the name and position of the government official and indicate date of endorsement. If this is a regional project/programme, list the endorsing officials all the participating countries. The endorsement letter(s) should be attached as an annex to the project/programme proposal. Please attach the endorsement letter(s) with this template; add as many participating governments if a regional project/programme:*

Endorsement letter (attached as Annex)

Focal point: Munkhjargal Chuluunjav *National Designated Authority for the Adaptation Fund* *Ministry of Environment and Climate Change, Mongolia*	Date*: (Month, day, year)* *16 February 2026*

Supporting letter (attached as Annex)

Ministry of Health *Dr Jigjidusuren Chinburen,* *Minister of Health, Mongolia*	Date*: (Month, day, year)* *13 March 2026*

B.Implementing Entity certification *Provide the name and signature of the Implementing Entity Coordinator and the date of signature. Provide also the project/programme contact person's name, telephone number and email address*

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I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans in Mongolia, including the updated NDC 3.0 (2025-2035), National Adaptation Plan to Climate Change (2024-2030) and Mongolian Long-Term Development Policy: Vision–2050 and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy and the Gender Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.

Name & Signature Implementing Entity Coordinator:  Ms Elena Villalobos Prats Technical Officer, WHO/HQ/HEP/ECH/CCH	
Date: 2 September2026	Tel. and email: +41792510315 villalobose@who.int
Project Contact Person: Dr AHMADOVA, Shalala Rafayil, Coordinator/Integrated Diseases Control Tel. and Email: 976-95022270 and ahmadovasha@who.int	

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MONGOLIA
MINISTRY OF ENVIRONMENT
AND CLIMATE CHANGE

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Website: www.mecc.gov.mn

Date 05. August 2026
Ref. 05a/4714

TO: THE ADAPTATION FUND BOARD
C/O ADAPTATION FUND BOARD SECRETARIAT

Subject: Endorsement for Concept Note for Single-Country Project: Transitioning to Healthy and Climate-Resilient Sanitation in Ger Areas of Ulaanbaatar, Mongolia

Dear Members of the Adaptation Fund Board,

In my capacity as the National Designated Authority for the Adaptation Fund in Mongolia, I hereby confirm that the Concept Note for the Single-Country Project entitled "Transitioning to Healthy and Climate-Resilient Sanitation in Ger Areas of Ulaanbaatar, Mongolia" aligns with the Government of Mongolia's national priorities for climate change adaptation and contributes to strengthening resilience to the adverse impacts of climate change.

A series of consultations have taken place among the World Health Organization (WHO), acting as the Multilateral Implementing Entity, the Ministry of Environment and Climate Change, the Ministry of Health, and other relevant stakeholders. These consultations have demonstrated broad support for the proposed project and its objectives.

Accordingly, I am pleased to endorse this concept note for consideration by the Adaptation Fund. Should the concept be approved, the World Health Organization will lead the development of the full project proposal in close collaboration with the Ministry of Environment and Climate Change, the Ministry of Health, and relevant partners. The full proposal will further elaborate the project's design, budget, implementation arrangements, and environmental and social risk management measures.

Please accept the assurances of my highest consideration.

Sincerely,

Ariuntuya Dorjsuren
Director General, International Cooperation Division
National Designated Authority for the Adaptation Fund

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MINISTRY OF HEALTH
OF MONGOLIA

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2026 .03. 16

Date: 13 March 2026
Ref: 1/49

To: The Adaptation Fund Board
Attn: Adaptation Fund Board Secretariat
From: Dr. Chinburen Jigjidsuren, Minister of Health and Member of State Great Khural (Parliament) of Mongolia

Subject: Support for Concept Note for Single-Country Project: Transitioning to Healthy and Climate-Resilient Sanitation in Ger Areas of Ulaanbaatar, Mongolia

Dear Members of the Adaptation Fund Board,

The Concept Note for the Single-Country Project titled "Transitioning to Healthy and Climate-Resilient Sanitation in Ger Areas of Ulaanbaatar, Mongolia" is fully aligned with the Government of Mongolia's national priorities in health, environment, climate change, energy and infrastructure development.

The project addresses a critical public health challenge in peri-urban areas, where households and health care facilities continue to rely on non-climate-resilient sanitation systems, particularly pit latrines that are inadequate for cold weather and flooding conditions. These facilities contribute to environmental pollution and significantly increase the risk of infectious disease transmission.

The proposed project seeks to protect and improve the health and well-being of residents in the peri-urban (ger) areas of Ulaanbaatar by promoting the adoption of innovative, healthy, and climate-resilient sanitation systems and services at both household and health care facility levels. It integrates community engagement, behavior change, and multisectoral approaches to ensure government ownership, leadership, and long-term sustainability.

Since the initiation of the concept note, the Ministry of Health, the Ministry of Environment and Climate Change, the World Health Organization, and the local

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governor's office have held consecutive discussions to identify problems, define project components, and align justifications with both Adaptation Fund policies and national strategies. These consultations have resulted in a shared commitment to support the proposed project.

Accordingly, the Ministry of Health is pleased to support this concept note submitted by the World Health Organization for consideration under the Adaptation Fund. If approved, the Ministry of Health will continue to provide its support to the World Health Organization in the development of the full project proposal, in close collaboration with the Ministry of Environment and Climate Change and other stakeholders.

Yours sincerely,



Dr. Chinburen Jigjidsuren
Minister

Revised PFG Submission Form[1] (additions in red)

Project Formulation Grant (PFG)

Submission Date: 2 September 2026

Adaptation Fund Project ID: Single Country Project Concept Note

Country/ies: Mongolia

Title of Project/Programme: Transitioning to healthy and climate-resilient sanitation in ger areas of Ulaanbaatar, Mongolia

Type of IE (NIE/RIE/MIE):

Implementing Entity: World Health Organization

Executing Entity/ies: World Health Organization Country Office in Mongolia

A. Project Preparation Timeframe

Start date of PFG	December /2026*
Completion date of PFG	March /2027*

*If the project concept note is approved by 47th Adaptation Fund Board Meeting (5-9 October 2026), WHO will facilitate the development of full proposal, in close collaboration with stakeholders starting December 2026. It is estimated that the full proposal development will take four months.

B. Proposed Project Preparation Activities ($)

List of Proposed Project Preparation Activities	Output of the PFG Activities	US$ Amount	Budget note[2]
Development of full proposal. 1.To conduct baseline assessment on sanitation system and types of	Output 1. Full project proposal 1.1 Baseline assessment report on sanitation system	82,180	Two national consultants : 2930$*2*4 months = 23,440 USD

[1] As presented in AFB/PPRC.33/40 Annex 1.
[2] The proposal should include a detailed budget with budget notes indicating the break- down of costs at the activity level. It should also include a budget on the Implementing Entity management fee use.

sanitation technology used in peri-urban (ger areas) and their operation and maintenance through four seasons 2.To conduct baseline assessment on needs and demand of people for improving their sanitation facilities 3.To organize stakeholder's consultation at national and local level to present the result of baseline assessment and discuss proposed interventions 4. To develop a full proposal as per the requirements of the Adaptation Fund 5. To organize the validation workshop to present the final draft full proposal 6. To develop environmental and social management plan (ESMP) following the Adaptation Fund's Environmental and Social Policy 7. To develop Budgeted Gender Action Plan	1.2 Baseline assessment report on needs of community 1.3 Stakeholders' consultation report 1.4 Validation workshop report 1.4 Budgeted Environmental and Social Management plan (ESMP) 1.5 Budgeted Gender Action plan 1.6 Full project proposal with detailed activities, M&E framework and detailed budget		International consultant: 8,000*4=32,000 USD Transportation and per diem cost for international consultant = 3000+(154*60 days) =12,240 USD Stakeholder's two workshop and interview cost: 12,000 USD Local travel = 2500 USD
		82,180	
IE fee (support costs) (8.5%)	IE will provide admin and technical support for conducting the assessment, workshop, development of full proposal	6,985	

Total Project Formulation Grant		**89,165**	

Please describe below each of the PFG activities and provide justifications for their needs and for the amount of funding required:

The PFG will support a baseline assessment and environmental and social management plan development to inform the design of a full proposal that facilitates the transition to climate-resilient sanitation systems in peri-urban (ger areas) of Ulaanbaatar, Mongolia.

The baseline assessment covers the components below:

- Review of the overall sanitation system, including governance, human resources, monitoring, and financial mechanisms.
- Analysis of sanitation technologies currently used in ger areas, with considering to operation and maintenance.
- Assessment of community needs and demand to improve sanitation facilities.

The assessment will combine qualitative and quantitative methodologies, including policy document and report review, site visits to evaluate operation and maintenance of technology across the sanitation chain (containment, collection, transport, treatment, reuse/disposal), and interviews with health and non-health policymakers, officials, partners, and community representatives. Gender and social inclusion perspectives will be integrated throughout.

The assessment findings will be shared with stakeholders along with a draft proposal for inputs prior to finalization.

WHO, as the Implementing Entity, will develop terms of reference for the full proposal, hire two national consultants and one international consultant (with expertise in environmental health and sanitation engineering), and oversee implementation of PFG activities while providing technical inputs.

C. Implementing Entity

This request has been prepared in accordance with the Adaptation Fund Board's procedures and meets the Adaptation Fund's criteria for project identification and formulation

Implementing Entity Coordinator, IE Name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
Elena Villalobos Prats, Technical Officer, WHO/HQ/HEP/ECH/CCH Tel. And Email: +41792510315 and villalobose@who.int		September 2, 2026	Dr Socorro Escalante, WHO Representative to Mongolia	976 99033311	escalantes@who.int
			Dr AHMADOVA, Shalala Rafayil, Coordinator/Integrated Diseases Control	976-95022270	ahmadovasha@who.int