Uzsuvtaminot JSC

Karakalpakstan and Khorezm Water Supply and Sewerage Project

Environmental and Social Management Planning Framework (ESMPF) for Water and Sanitation Activities in Khorezm Region

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Contents

Appendix 1: Data Gathering and Survey Checklists

1. E&S Screening and Categorisation Checklist

According to AIIB's ESP, screening and categorisation of the project should be conducted to determine the nature and level of the required E&S assessment, type of information disclosure and stakeholder engagement for any project/subproject financed.

Both Uzbek legislation and AIIB ESP require screening the project for the expected E&S impacts and assigning it to one of the categories. The AIIB ESP has Categories A, B, C, and FI (see the box), and the Uzbek legislation has categories I to IV (Regulation No. 541 "On further improvement of environmental assessment procedure").

The categorisation will take into consideration the nature, location, sensitivity and scale of the Project, and will be commensurate with the significance of its potential E&S risks and impacts. The Project will then be categorised against the categories set out by AIIB ESP.

The subproject activities under each Project component/element will be screened to identify those that have the potential to generate significant adverse E&S impacts and risks during the pre-construction, construction, and operation phases.

AIIB ESP, Screening and Categorisation:

Category A: A Project is categorised A if it is likely to have significant adverse environmental and social impacts that are irreversible, cumulative, diverse or unprecedented. These impacts may affect an area larger than the sites or facilities subject to physical works and may be temporary or permanent in nature. An environmental and social impact assessment is required along with an ESMP or ESMPF.

Category B: A Project is categorised B when: it has a limited number of potentially adverse environmental and social impacts; the impacts are not unprecedented; few if any of them are irreversible or cumulative; they are limited to the Project area; and can be successfully managed using good practice in an operational setting. An initial environmental examination is required.

Category C: A proposed project is classified as category C if it is likely to have minimal or no adverse environmental impacts. No environmental assessment is required although environmental implications need to be reviewed.

Category FI: A project is classified as category FI if the project financing

A Screening Checklist (Table 62) will be applied during this task to identify potential risks associated with the subproject and the level of E&S assessment needed.

Table 1: Screening Checklist

Screening	Yes	No	N/A	Comments
Will the activities related to construction, operation or liquidation of the project cause significant physical or ambient changes to the surrounding environment (topography, land use, changes in waterbodies, air quality, etc., due to backfill, soil comp, emissions)?				
Will the project require resettlement of individuals or communities, acquisition of land or restriction on the use of or access to land?				
Is the project located in an area subject to natural disasters: earthquakes, landslides, erosion, flooding or extreme or adverse climatic conditions (e.g. temperature inversions, fogs, severe winds, storms)?				
Are there sensitive receptors in the project area (for example unprotected underground water, water bodies, wildlife, flora, residential areas nearby, protected areas)				
Will construction or operation of the project use local resources such as land, water, materials, or energy, especially any resources which are non-renewable or in limited supply? (lack of space in congested areas)				
Will the project alter the actual land surface conditions (e.g. compaction of soil.) which might reduce the drainage capacity and increase the risk of flooding?				
Is the past use of the designated area of the project known? Would it impact (from an environmental point of view) the actual and future use of the site?				
Will the future possible use of the surrounding areas have an environmental impact on the site (if known)?				
Will the project produce solid and liquid waste during construction, operation or liquidation?				
Will the project release air emissions (e.g. are they toxic or polluting substances and significant greenhouse gas emissions)?				
Will the project involve use, storage, transport, handling or production of substances or materials which could be harmful to human health or the environment (e.g. chemicals, oils, pesticides, etc.)?				

Screening	Yes	No	N/A	Comments
Will the project increase road traffic in the area or change actual traffic movements (e.g. closing or opening of roads, resulting in heavy equipment movements)?				
Is there a possibility that the project will cause risks of contamination of land or water through pollutant releases onto sensitive receptors (e.g. ground or surface waters, groundwater, coastal waters or the sea)?				
Will there be any risk of accidents during construction or operation of the project which could affect human health or the environment?				
Will the project cause any social changes, for example, in demography, resettlements, traditional lifestyles, employment or through physical or noise disturbance?				
Will the project be located in densely populated areas where it could affect the local population?				
Is the project located in an area sensitive in terms of biodiversity (e.g. wetlands, watercourses or other waterbodies, the coastal zone, mountains, forests or woodlands)?				
Is the project located in an area sensitive in terms of flora and fauna (for breeding, nesting, foraging, and resting, overwintering, migration)?				
Are there any areas around the location which are occupied by sensitive land uses (e.g. hospitals, schools, community facilities) which could be affected by the project?				
Are there any areas or features of high landscape or scenic value on or around the location which could be affected by the project?				
Are there any areas or features of archaeological, historic or cultural or religious significance on or around the location which could be affected by the project?				

The screening of Project activities will be conducted in close coordination with the project proponents and design engineers.

2. Guidance for Biodiversity Assessment and Management

While impacts on biodiversity were not assessed as significant in the Project ESIA, a number of internationally and nationally protected species may potentially be present within the subprojects' footprint (see section 4.7.4 of this ESMPF document). The guidance below is intended to support the CPU with further identification, assessment and management of the potential ecological impacts.

Biodiversity Surveys

This section is based on the Equator Principle Association Best Practice Note on Biodiversity Baseline Surveys (March 2022) and summarises general principles and practices that should be followed during the planning and undertaking of baseline surveys to inform the ecological impact assessment within an ESIA.

Baseline field surveys must be done in the project planning phase and cannot be an afterthought or commence at the last minute. Rather, surveys must be performed over **multiple seasons** and throughout suitable periods of the year. Timing depends on biological and environmental factors such as:

- Variation in species distribution due to seasonal changes (e.g., temperature or precipitation);
- Reproduction cycle of the organisms of interest;
- Migration periods for birds and other animals; and
- Growth and flowering periods of plants.

Following the completion of biodiversity baseline surveys, further time will be needed for impact assessment reporting and the identification of mitigation measures. The CSBI Project Timeline Tool is a valuable resource for translating biodiversity baseline survey timelines into the context of financing projects and planning timelines.

Baseline studies should be comprised of a combination of literature review, stakeholder engagement and consultation, field surveys, and other relevant assessments as applicable. For sites with potentially significant impacts on biodiversity and ecosystem services, baseline field surveys should be conducted over multiple seasons and by competent professionals with relevant expertise. Field surveys and assessments should be recent and reflect the current status of the survey area. Local and regional study areas should be identified to ensure the data captures the direct project footprint, including related and associated facilities, as well as the project's area of influence and potential cumulative impacts.

Important elements to consider during field survey planning include:

- Engage experienced biodiversity experts with knowledge of local biodiversity.
- Prioritise the use of appropriate methodology that follows international good practice and standards whenever available and applicable.
- Ensure that all topics outlined by relevant international standards (IFC, EBRD, etc.) are addressed.
- Incorporate buffer areas into survey plans to allow for changes in project layout at a later stage.
- Involve external organisations with species and regional expertise and consider partnerships with relevant NGOs.
- Allow relevant national authorities to be involved in the process.
- Engage with relevant stakeholders, such as local communities and indigenous people, to gain valuable local knowledge on biodiversity and ecosystem services.

Priority should be given to the identification of data gaps as early in the planning process as possible, such that these gaps can be sufficiently closed without causing delays. Some existing baseline data is often available to support the early identification of potential project impacts through preliminary desktop exercises. While desktop data sources are available, existing data is often inadequate and will not allow for suitable site-specific assessment of impact. Existing data and literature is usually not enough to follow good practice and be aligned with international standards.

Biodiversity Management

If baseline survey establishes that the whole subproject or part of it is located in critical habitats, a Biodiversity Action Plan (BAP) will need to be developed. As outlined in the IFC Guidance Note 6 (para GN91), a BAP should describe:

- the composite of actions and a rationale for how the project's mitigation strategy will achieve net gain (or no net loss),
- the approach for how the mitigation hierarchy will be followed, and
- the roles and responsibilities for internal staff and external partners.

BAPs are living documents that should include agreed-on timelines for regular review and update as new information arises, project implementation progresses, and conservation context changes over time.

A BAP differs from a Biodiversity Management Plan (described in para GN 50 of the Guidance Note) in that the latter is an operational document developed largely for site managers and contractors; whereas the BAP will almost always include actions for off-site areas (for example, offsets and additional actions) and involve external partners (for example, implementing partners, reviewers, or advisors). The BAP may also be accompanied by documents that would be developed at a later timeframe, such as an Offset Management Plan. In these cases, the BAP would be updated to reference these

critical documents when they are developed. Depending on the nature and scale of the project, an initial BAP may describe a strategy and timeline for identifying actions to deliver net gain (or no net loss).

Any offset attempted in critical habitat should be identified, designed and managed according to GIIP and be sustainable as long as the project impacts persist.

3. Sample Social Screening Checklist

Involuntary Resettlement Impacts Questions	Yes/No	Not Known	Details/Notes
Will the intervention include construction work?			
Does the intervention include upgrading or rehabilitation of existing physical facilities?			
Is the intervention likely to cause any permanent damage to or loss of housing, other assets, resource use?			
Is the site chosen for this work free from encumbrances and is in possession of the government/community land?			
Is this sub project intervention requiring private land acquisitions?			
If the site is privately owned, can this land be purchased through negotiated settlement?			
If the land parcel has to be acquired, is the actual plot size and ownership status known?			
Are these landowners willing to voluntarily donate the required land for this sub-project?			
Whether the affected landowners likely to lose more than 20% of their land/structure area because of donation?			
Is land for material mobilisation or transport for the civil work available within the existing plot (Right of Way)?			
Are there any non-titled people who are living/doing business on the proposed site/project locations that are used for civil work? Is any temporary impact likely?			
Is there any possibility to move out, close of business/commercial/livelihood activities of persons during constructions?			
Is there any physical displacement of persons due to constructions? Does this Project involve resettlement of any persons? If yes, give details.			
Will there be loss of /damage to agricultural lands, standing crops, trees?			
Will there be loss of incomes and livelihoods?			
Will people permanently or temporarily lose access to facilities, services, or natural resources?			
Are there any previous land acquisitions happened, and the identified land has been already acquired?			
Are there any land acquisition happening in frame of this Project but without financing of the Asian Infrastructure Investment Bank?			

Appendix 2: Terms of Reference for the Preparation of Environmental and Social Impact Assessment

A. Introduction

The Government of the Republic of Uzbekistan (GoU) has requested financing from the Asian Infrastructure Investment Bank (AIIB) to develop the water supply and sanitation infrastructure in the Karakalpakstan and Khorezm regions. The implementation of this project aims to provide reliable, safe, and sustainable water supply and sewage services, which will significantly improve the public health and living conditions of the people residing in these areas. In compliance with the national regulations and the AIIB's Environmental and Social Framework (ESF), an Environmental and Social Management Planning Framework (ESMPF) with Resettlement Planning Framework (RPF) has been prepared to address the environmental and social impacts of this proposed project.

The ESMPF outlines the need to conduct an Environmental and Social Impact Assessment (ESIA) and prepare an Environmental and Social Management Plan (ESMP) for each subproject. This document provides the terms of reference (ToR) for the ESIA of the subprojects, while a ToR for preparing an ESMP is provided separately.

B. Background

The Government of Uzbekistan (GoU) initiated the Khorezm region water supply and sewerage project. The project aims to enhance service delivery by Khorezm Suvtaminot LLC and improve local population access to safe, reliable, and sustainable water and wastewater services managed using environmentally sound practices.

The coverage of water supply services in the Khorezm Province is 86.9% as of 2022, according to the Khorezm Province Department of Statistics Agency. The Khorezm Province's water system deteriorated due to a lack of investment and deferred maintenance, resulting in a substantial decrease in the quality and reliability of the water supply service. In addition, the quality and scarcity of water are two of the main issues in Khorezm Province. Water sources present a high rate of salinity and turbidity, especially in winter. The water sampling and quality control campaign confirm incompliance with the national standards (e.g., the unacceptably high number of coliform bacteria has been detected in five sampling points, and the total permissible water hardness is exceeded in 12 out of 13 samples).

Most Khorezm Province's districts have a scheduled water supply with access to drinking water for only a few hours daily. The water supply system was built in the 1970s and 1990s. The condition of the distribution network is very poor. The leakage rate varies from 75 to 92 per 100 km (increasing trend). The old metal pipes are corroded. Khanka, Gurlen, and

Shavat districts have the highest leakage rate. The water utility's operation and maintenance (O&M) personnel reported that about a quarter of existing networks are asbestos-containing pipes laid over 30-40 years ago.

As of 01.04.2023, Khorezm Suvtaminot LLC reported population coverage with wastewater services as 6-8%, a low enough figure to maintain sanitary and epidemiological well-being in the province. About half of wastewater pumping stations require reconstruction. Some are in critical condition, and others are entirely out of service. Urgench, Khiva, and Pitnak networks are in a deplorable state. No flow meters are installed in the network. There is no record of pump running hours on the surveyed pumping stations.

The activities planned under the AIIB-financed project include investments in the water supply and sewerage infrastructure of several towns and districts of the Khorezm Province. The objective of these investments is to enhance the living standards, health, and safety of the region's residents by addressing the challenges of water supply and sanitation services.

C. Project Overview

The project development objectives are to improve the availability and sustainability of water supply and sewerage services in the region. The Project will focus on the improvement of water supply and sewerage services in the selected districts and certain urban centers, along with improving the living conditions in the province.

The proposed project interventions under the water supply component includes rehabilitation and construction of water treatment and distribution facilities in four districts – Gurlen, Khanka, Shavat, and Urgench districts. The proposed project components include the following scope:

(1) Water Mains:
- Construction of the Gurlen-Shavat water main with electrochemical protection
- Construction of the Koromon-Kushkupir water main with electrochemical protection and flow and pressure control valves
- Construction of the Pitnak-Urgench water main with electrochemical protection

(2) Urgench District: Construction and rehabilitations of water treatment and distribution facilities
- Construction and rehabilitation of Chakkakuli WDU, Urtadurmon WDU, Bobodekhkon WDU, H. Olimjon WDU, Miroblar WDU, Yukoriovul WDU, Cholish WDU, Kumravot WDU, Obod WDU, Orzu WDU, Shohidonlar WDU, Chandir WDU,

Yangi Urtabog WDU, Katta Bog WDU, Oyok Bog WDU, Turkmanlar WDU, Koromon WDU, and Ravot WDU
- Installation of pumping and chlorination facilities at WDUs
- Construction and rehabilitation of district water mains and networks
- Installation of customer water meters
- Construction of wells with shut-off valves.

(3) Khanka District: Construction and rehabilitations of water treatment and distribution facilities
- Construction and rehabilitation of Tayanch pumping station, Tayanch WDU, Turkiston WDU, Pakhtakor pumping station, Khankaobod WDU, Durmon WDU, Markazi-2019 WDU, Gulistan WDU, Dustlik WDU, Ilgor WDU, Znakhos WDU, Gairat WDU, Nurobod WDU, Yosh Kuch WDU, Madaniyat WDU, and Markaziy 1960 Production Base
- Installation of pumping and chlorination facilities at WDUs
- Construction and rehabilitation of district water mains and networks
- Installation of customer water meters
- Construction of wells with shut-off valves.

(4) Shavat District: Construction and rehabilitations of water treatment and distribution facilities
- Construction and rehabilitation of Idalikala WDU, Arbob WDU, Oydin WDU, Buirachi WDU, Markaziy WDU, Archazor WDU, Khitoy WDU, Arytom WDU, Mevazor WDU, Kirgok Boyi WDU, Gulistan WDU, Monok Markaziy WDU, Chigatoy WDU, Madaniyat WDU, Monok-2 WDU, Ogohiy WDU, Eshonkala WDU, Ok Kul WDU, Yangi Burlok WDU, Kushkupir WDU, and Markaziy WDU Production Base
- Construction of water conduit from Markaziy WDU to Monok Markaziy WDU
- Installation of pumping and chlorination facilities at WDUs
- Construction and rehabilitation of district water mains and networks
- Installation of customer water meters
- Construction of wells with shut-off valves.

(5) Gurlen District: Construction and rehabilitations of water treatment and distribution facilities
- Construction and rehabilitation of Moily WDU, Gurlen WDU, Nurafshon WDU, Pakhtakor WDU, Besh Uy WDU, Hizir Eli WDU, Dustlik Bogi WDU, Baldokli WDU, Birlashgan WDU, Kangli WDU, Ok Kum WDU, Dusimbiy WDU, Marbugat WDU, and Chinobod WDU
- Construction of wells with pressure regulators, flow meters and shut-off valves
- Installation of pumping and chlorination facilities at WDUs
- Construction and rehabilitation of district water mains and networks

- Installation of customer water meters and flow meters on the main networks.

The proposed project interventions under the wastewater component include construction of WWTP in four districts – Yangibazar, Yangiarik, Shavat, Urgench, and Khazarasp districts and collection and transmission, system to WWTPs, including:

- Construction of pumping stations in Yangibazar, Yangiarik, Shavat, Khazarasp, and Urgench districts
- Construction of gravity sewer network in Yangibazar, Yangiarik, Shavat, Khazarasp, and Urgench districts
- Construction of pressure sewer network with two lines in Yangibazar, Yangiarik, Shavat, Khazarasp, and Urgench districts
- Construction of house sewer connections in Yangibazar, Yangiarik, Shavat, Khazarasp, and Urgench districts
- Reconstruction of pumping station in Urgench district
- Modernization of sewage pumping station in Urgench district
- Reconstruction of gravity sewer network in Urgench district
- Reconstruction of pressure sewer network with two lines in Urgench district.

D. ESMPF

As the locations of all the proposed project components have not yet been identified, and the construction methodology will be determined later in the detailed design stage, an ESMPF with RPF has been prepared. The ESMPF outlines the environmental and social safeguard procedures to be followed during the project implementation and provides criteria to determine whether an ESIA is required or a simpler ESMP for a subproject will suffice.

The main objective of the ESMPF is to ensure that all project activities are assessed and implemented in compliance with Uzbekistan's applicable regulatory framework, the AIIB Environmental and Social Policy (ESP), and Environmental and Social Standards (ESS). The ESMPF outlines the generic potential impacts of the project activities and proposes mitigation measures to address these impacts. It also outlines the principles and procedures for conducting environmental and social assessments and involuntary resettlement planning for the project activities.

E. Environmental and Social Category of the Project

According to AIIB's ESP, the project has been classified as Category A, considering the nature of the project activities and local environmental and social contexts. However, the environment category of each subproject will be determined based on the criteria outlined in the ESMPF. An ESIA will be needed for subprojects under Categories A and B, followed by the preparation of a corresponding ESMP.

F. Environmental and Social Impact Assessment

Objectives of the Assignment. The objectives of the environmental and social assessment are to provide input into the subproject design to enhance the benefit of the subproject equally for all stakeholders (institutional stakeholders and community residents), including vulnerable groups, and ensure that the adverse impacts of the project on the physical, biological, and human environment are avoided, minimized, mitigated, or compensated, and integrate the environmental and social considerations into the project implementation while complying with national and AIIB environmental and social assessment requirements.

Methodology. This assignment will involve various methods such as desk reviews, field surveys, data collection, and analysis. Field tools such as instrument monitoring, field surveys, focus group meetings, workshops, questionnaires, census surveys, and in-depth interviews will be used. Analysis and assessment tools may include matrices, risk assessment techniques, and geographic information system-based analysis and modeling. Data gathering and analysis will be carried out in a consultative and participatory manner, involving local communities and other stakeholders. The ESIA team will work closely with the engineering design team to integrate the results of field surveys, environmental modeling, and feedback from stakeholder consultations into the engineering design.

Tasks. The scope of work under the ESIA include the following key tasks:

Task 1: Review of the Project and Subproject Details. This task requires a comprehensive understanding of the main project and its subproject, for which an ESIA needs to be conducted. Special attention should be given to the components that may potentially affect the environmental and social resources of the subproject area, including but not limited to the following factors:

- Proposed location, sites conditions and alternatives
- Proposed construction methodology concept and alternatives
- Construction and rehabilitation of permanent facilities
- Construction of temporary facilities (including construction camp)
- Manpower requirement
- Equipment, vehicles, materials, and supporting facilities such as batching plant
- Site preparation (demolition of old facilities, site clearance, excavation, and levelling)
- Waste generation
- Water use plan during construction and operation phases
- Project schedule and institutional arrangements
- Project facilities testing and commissioning.

Task 2: Scoping. Scoping aims to identify the potential area of influence and possible interactions between the project components, environmental and social resources, and receptors inside the area of influence.

- Area of Influence (AoI). Scoping will be undertaken to delineate the potential AoI for the subproject (and, therefore, the relevant study area). Under AIIB ESF's definition, the AoI includes the area likely to be affected by the project, including all its ancillary aspects. So, for the AoI, will be used information from the site visits, scoping opinion meetings with local authorities, and good international industry practices on potential environmental and social impacts of the water and wastewater projects to define the subproject AoI. In addition, the AoI should consider sanitary buffer zones for the project components, noise and odor generated by the project facilities, and other aspects of the subproject.
- Sensitive Receptors and Resources. A list of determined resources and receptors under the specific subproject and describing their type, category, and impact will be developed.
- Interaction Matrix. The potential impacts identified and screened throughout the scoping study will be integrated into the Interaction Matrix. All potential interactions, regardless of probability of occurrence are considered at this stage. So, the matrix should illustrate project activities, resources, and receptors, expected potential impact, and applicable AIIB ESS.
- Stakeholder Analysis. The key stakeholders will be identified, and their respective importance and influence on the subproject will be analyzed. Based on the desk review and a reconnaissance survey of the proposed project area, a tentative list of stakeholders can be composed. This list of key stakeholders should be confirmed during consultations with policymakers, representatives of local authorities, line departments, and NGOs. Under each stakeholder category, specific subgroups will be identified per specificity (gender, residential location, occupation, etc.), outlining their concerns and perceptions about the project.

Task 3: Review of Applicable National Regulatory Framework and AIIB Safeguard Requirements. A thorough review of the laws, regulations, and policies related to environmental and social assessment in Uzbekistan, along with the AIIB ESP and ESS, will be conducted. The regulatory framework gap analysis of the relevant national regulations and AIIB's ESF provided in ESMPF will be updated as required. The revised gap analysis will also be summarized in tabular form. Additionally, the applicable national environmental standards, such as noise level, water quality, ambient air quality, etc., will be compared with those of the World Bank Group Environmental, Health, and Safety Standards. The project should adhere to pollution control methods that are consistent with international best practices as

required by the AIIB ESF. If there is a difference between national and international standards, the borrower must comply with the more stringent one.

Task 4: Environmental and Socioeconomic Baseline Assessment. This task requires gathering essential environmental and socioeconomic data from primary and secondary sources to establish a baseline for the project area. This task also aims to enhance the generic baseline description included in the ESMPF. The ecological baseline will cover the following areas:

- Physical environment: Geographic location, climate, topography and terrain, geology, soils, seismicity, water resources, climate, air quality, and acoustic environment.
- Biological environment: Ecosystem, flora and fauna, habitat condition, flora and fauna, biological receptors likely to be affected by the project, endangered species, sensitive habitats, and protected areas.
- Socioeconomic baseline: Province- and district-level socio-economic context with description of the demographic profile (population density, growth, distribution, gender ratio, migration, and ethnicity), economy (employment, income, economic climate, land use and tenure, housing), education and healthcare, access to public services and infrastructure, and the presence of archaeological and cultural heritage sites in the project area.

  This subtask also includes data gathering on vulnerable groups and gender analysis with determining access to resources, roles and responsibilities, constraints, and priorities in the water supply and wastewater sector to design appropriate gender-sensitive measures, components, and indicators to respond to gender issues.

  The ESIA team and consultants preparing the Resettlement Plan will coordinate activities to achieve synergies, ensure information consistency, and avoid duplication of data collection and analysis.

Task 5: Analysis of Alternatives. Various subproject alternatives, including a do-nothing scenario, will be thoroughly analyzed to assess their technical, economic, financial, environmental, and social implications. These alternatives may relate to the facility's location, pipeline alignment, material selection, water source selection, technology options, construction methodology, and construction schedule. This analysis will provide the necessary justification and rationale for selecting the most suitable alternative.

Task 6: Stakeholder engagement. Stakeholder engagement will involve a range of tools, including focus group discussions, community meetings, one-to-one interviews, consultation workshops, and socio-economic surveys. These consultations aim to share information about the project and the key findings of

the ESIA with stakeholders, obtain feedback about the project, perceived impacts, and preferred mitigation measures, and collect information on environmental and socio-economic baselines in the subproject area.

The consultations will be conducted with relevant departments, institutions, community leaders and residents, NGOs, and academia. Separate consultations will be conducted with women in the subproject area to focus on gender issues. These consultations with affected groups will be held in a culturally appropriate way to ensure they are meaningful to those being consulted. Relevant materials will be provided to these groups promptly before consultations and in a form and language that is understandable and accessible to the groups being consulted. The consultation meetings will be documented with the following developing a strategy for continued engagement during the project implementation.

The draft ESIA report will be publicly available to affected groups and local NGOs, and online. The executive summary will be translated into local language and disclosed.

The ESIA team and consultants preparing the Resettlement Plan will coordinate activities to achieve synergies, ensure information consistency, and avoid duplication of data collection and analysis.

Task 7: Impact Assessment. This task is the most crucial part of the entire assignment and builds upon the initial scoping and analyses carried out during Task 2. It also benefits from the generic impact assessment included in the ESMPF. The goal of this task is to evaluate all direct and indirect impacts and risks that may arise in the short- and long-term due to the construction and operation phases of the subproject. To achieve this, an internationally recognized methodology will be utilized to identify and characterize each potential impact of the subproject on various aspects of the physical, biological, and socioeconomic environment. During the study, a matrix will be created to outline the interaction of the project activities with different aspects of the environment. Based on its nature and probability of occurrence, the significance of each potential impact will be assessed as severe, moderate, mild, or negligible. The consultant will use qualitative and quantitative approaches (utilizing analytical and mathematical means) to determine the potential impacts and will distinguish between significant positive and negative effects, direct and indirect effects, and immediate and longer-term impacts, particularly those adverse ones likely to be unavoidable or irreversible.

Site-specific impacts will be evaluated along with the general effects of the subproject. The assessment will identify sensitive receptors on-site and analyze each potential impact separately in the AOI. Special attention will be given to labor health and safety and the effects of labor influx on the community. The

proposed measures inter alia will include Codes of Conduct for contractor's workers and overall project personnel for interacting with local population, and specifically with women, children, and senior adults.

Once the impacts are identified, appropriate avoidance, mitigation, or compensatory measures will be determined to address each potential impact in order of preference. Any residual impacts after implementing mitigation measures will be identified and offset or compensation will be determined accordingly.

The consultant will work closely with the engineering design team to evaluate the project's impacts on the climate and analyze climate adaptation. An internationally recognized methodology will be used to estimate the gross emissions of greenhouse gases resulting from the project and compare them to baseline emissions.

Task 8: Cumulative and Induced Impacts. The project includes components that may potentially have cumulative and induced impacts. As part of this task, the consultant will analyze the cumulative and induced effects relevant to the particular subproject for potential impacts.

Task 9: Environmental and Social Management Plan. Once the impact assessment is completed, an environmental and social management plan (ESMP) will be developed in close collaboration with the implementing agency and other relevant entities. The ESMP will be included in the bidding documents for construction contracts and will be mandatory for contractors to follow. It will outline the strategies for implementing the mitigation measures identified earlier in the assignment and also lay out a plan for monitoring, reporting, and capacity-building programs.

Task 10: Grievance Redress Mechanism (GRM). The consultant will carefully examine the GRM proposed in the ESMPF. If necessary, the GRM will be improved in compliance with the AIIB ESF and national complaint management system. The primary focus of the GRM will be to ensure that women and vulnerable groups have access to grievance redressal and engagement mechanisms. Furthermore, the consultant's recommendations will aim to make these mechanisms more responsive to their voices and needs.

G. ESIA Structure

The tasks described above will result in the compilation of an ESIA for the specific subproject and will have the following proposed structure.

(1) Executive Summary. An executive summary is a brief overview of the ESIA report that should be easily understood by the public. It should cover all aspects of the report in a clear and concise manner. The summary should describe both the process and the study's output. In other words, it should explain what was done and what resulted from it.

(2) Introduction. This section will introduce the ESIA by providing information about its background, objectives, principles, process, and methodology. It will also specify the subproject proponents and study team and offers other relevant information. Additionally, this section should describe the ESIA report structure to help facilitate its use. A subproject map is also provided in this chapter.

(3) Legal and Administrative Framework. This chapter aims to provide an overview of the laws, regulations, and standards related to environmental and social assessment and management, including resettlement issues, at national and international levels. It will identify the institutions responsible for enforcing these laws and their roles in project implementation. The chapter will pay particular attention to local institutions and structures at project sites to ensure the inclusiveness and participation of all affected people, groups, and communities. Furthermore, this chapter will discuss the AIIB's ESP and ESSs and examine how they apply to the subproject. It will also compare the AIIB standards with the national legislation in Uzbekistan, highlighting any gaps between the two sources of requirements. Finally, the chapter will explain how the ESIA bridges the gaps between the AIIB standards and the national legislation. All the information will be summarized in a tabular form for better understanding.

(4) Description of Subproject. This chapter aims to provide a brief overview of the subproject, which is an objective of ESIA. It will include a summary of the background of the overall project and a specific subproject. The components of the subproject will be discussed in terms of the permanent and temporary facilities and associated civil works. The chapter will also cover workforce requirements, labor camps, machinery, equipment, plant, and building materials. A description of the construction methodology will be finalized by specifying the subproject implementation period and overall cost. Finally, the chapter will identify the specific activities to be implemented during the design, construction, operation, and maintenance phases.

(5) Analysis of Alternatives. This chapter will not only discuss "do-nothing" scenario but also provide an overview and assessment of all practical and achievable subproject alternatives. It will pay special attention to the social and environmental implications of each alternative.

(6) Environmental and Social Baseline Assessment. This chapter will discuss the findings of the literature review, environmental instrument monitoring, field surveys, social and economic surveys, and data collection that were conducted at various project sites. The description will cover the physical, biological, and socio-economic environment of the subproject area. Additionally, this chapter will include an estimated number of people and types that are likely to be affected or displaced by the project activities. The data and description provided will be relevant to the subproject location, design, operation, and impact assessment decisions. Furthermore, we will also describe the trends in the area's key environmental parameters.

(7) Impact Assessment and Mitigation Measures. This chapter will begin by presenting the scoping process and its outcomes, which were conducted at the start of the study. It will identify the significant impacts and the criteria used to determine this. The methodology and outcomes of the detailed impact assessment during the assignment will be described.

The chapter will then present the impact assessment during the design, construction, and operation phases on the physical, biological, and socioeconomic environment and the climate. The analysis will cover the issues of the proposed subproject and associated onsite and off-site facilities, including borrow pits, labor camps (if any), transportation, and storage of construction equipment and materials. All generic and site-specific impacts will be assessed. A separate section will also be developed to summarize the cumulative and induced impact assessment findings. Considering the IFC's Cumulative Impact Assessment Guidelines, this section will identify current and proposed activities and potentially induced development within the subproject area, analyze the effects of those developments and activities, and estimate cumulative impacts while providing recommendations for managing them.

Appropriate impact avoidance, minimization, mitigation, and compensatory measures will be detailed for each impact. The potential impacts, significance, and associated mitigation measures will also be presented in a tabular form.

(8) Environmental and Social Management Plan. The ESMP chapter is an essential part of the ESIA report. It will cover the following key aspects:

- Implementation arrangements for the project covering responsibilities for overall project management, project coordination at local level and

responsibilities for environmental and social management, implementation, and monitoring.

- A mitigation plan that outlines measures to mitigate the various impacts of each subproject activity. It will also assign responsibilities for implementation, monitoring, and supervision, along with monitoring indicators.
- Internal and external monitoring arrangements with roles and responsibilities, monitoring methodology, frequency, and documentation requirements. There will be two types of monitoring: compliance monitoring and effects monitoring.
- Capacity building requirements specifying certain activities, participants, implementors, and implementation period.
- ESMP implementation cost.
- Documentation and reporting.

(9) Stakeholder Engagement. This section of the ESIA report should provide details about the objective, process, and outcome of stakeholder consultations carried out during the ESIA and other associated activities, such as RAP preparation. It is important to document the feedback and comments of all stakeholders, including project-affected people, representatives of vulnerable groups, and representatives of institutional stakeholders such as government officials, NGOs, line department officers, and representatives of public health service and territorial departments of environmental regulators. This section should also explain how the feedback received from stakeholders has been or will be addressed. The record of consultation and participation should be enclosed in the ESIA report. Additionally, this section should include a stakeholder engagement plan that outlines consultations to be conducted with various stakeholders during subsequent stages of subproject implementation (i.e., construction and O&M).

This section will also specify activities to disclose the ESIA in a timely manner, an accessible place, form, and language(s) understandable to affected people and other stakeholders. As part of information disclosure, the ESIA will be translated in Russian and its summary in Uzbek.

(10) Appendices. The ESIA will contain supplementary sections as appendices.

H. Applicable Legislation and Standards

The following legislation and standards will be applicable for preparing the ESIA:

(1) Applicable Uzbekistan regulatory framework
(2) AIIB ESF with ESP and ESSs.

Appendix 3: Terms of Reference for the Preparation of Environmental and Social Management Plan

A. Introduction

The Government of the Republic of Uzbekistan (GoU) has requested financing from the Asian Infrastructure Investment Bank (AIIB) to develop the water supply and sanitation infrastructure in the Karakalpakstan and Khorezm regions. The implementation of this project aims to provide reliable, safe, and sustainable water supply and sewage services, which will significantly improve the public health and living conditions of the people residing in these areas. In compliance with the national regulations and the AIIB's Environmental and Social Framework (ESF), an Environmental and Social Management Planning Framework (ESMPF) with Resettlement Planning Framework (RPF) has been prepared to address the environmental and social impacts of this proposed project.

The ESMPF outlines the need to conduct an Environmental and Social Impact Assessment (ESIA) and prepare an Environmental and Social Management Plan (ESMP) for each subproject. This document provides the terms of reference (ToR) for the ESMP of the subprojects, while a ToR for preparing an ESIA is provided separately.

B. Background

The Government of Uzbekistan (GoU) initiated the Khorezm region water supply and sewerage project. The project aims to enhance service delivery by Khorezm Suvtaminot LLC and improve local population access to safe, reliable, and sustainable water and wastewater services managed using environmentally sound practices.

The coverage of water supply services in the Khorezm Province is 86.9% as of 2022, according to the Khorezm Province Department of Statistics Agency. The Khorezm Province's water system deteriorated due to a lack of investment and deferred maintenance, resulting in a substantial decrease in the quality and reliability of the water supply service. In addition, the quality and scarcity of water are two of the main issues in Khorezm Province. Water sources present a high rate of salinity and turbidity, especially in winter. The water sampling and quality control campaign confirm incompliance with the national standards (e.g., the unacceptably high number of coliform bacteria has been detected in five sampling points, and the total permissible water hardness is exceeded in 12 out of 13 samples).

Most Khorezm Province's districts have a scheduled water supply with access to drinking water for only a few hours daily. The water supply system was built in the 1970s and 1990s. The condition of the distribution network is very poor. The leakage rate varies from 75 to 92 per 100 km (increasing trend). The old metal pipes are corroded. Khanka, Gurlen, and

Shavat districts have the highest leakage rate. The water utility's operation and maintenance (O&M) personnel reported that about a quarter of existing networks are asbestos-containing pipes laid over 30-40 years ago.

As of 01.04.2023, Khorezm Suvtaminot LLC reported population coverage with wastewater services as 6-8%, a low enough figure to maintain sanitary and epidemiological well-being in the province. About half of wastewater pumping stations require reconstruction. Some are in critical condition, and others are entirely out of service. Urgench, Khiva, and Pitnak networks are in a deplorable state. No flow meters are installed in the network. There is no record of pump running hours on the surveyed pumping stations.

The activities planned under the AIIB-financed project include investments in the water supply and sewerage infrastructure of several towns and districts of the Khorezm Province. The objective of these investments is to enhance the living standards, health, and safety of the region's residents by addressing the challenges of water supply and sanitation services.

C. Project Overview

The project development objectives are to improve the availability and sustainability of water supply and sewerage services in the region. The Project will focus on the improvement of water supply and sewerage services in the selected districts and certain urban centers, along with improving the living conditions in the province.

The proposed project interventions under the water supply component includes rehabilitation and construction of water treatment and distribution facilities in four districts – Gurlen, Khanka, Shavat, and Urgench districts. The proposed project components include the following scope:

(6) Water Mains:
- Construction of the Gurlen-Shavat water main with electrochemical protection
- Construction of the Koromon-Kushkupir water main with electrochemical protection and flow and pressure control valves
- Construction of the Pitnak-Urgench water main with electrochemical protection

(7) Urgench District: Construction and rehabilitations of water treatment and distribution facilities
- Construction and rehabilitation of Chakkakuli WDU, Urtadurmon WDU, Bobodekhkon WDU, H. Olimjon WDU, Miroblar WDU, Yukoriovul WDU, Cholish WDU, Kumravot WDU, Obod WDU, Orzu WDU, Shohidonlar WDU, Chandir WDU,

Yangi Urtabog WDU, Katta Bog WDU, Oyok Bog WDU, Turkmanlar WDU, Koromon WDU, and Ravot WDU
- Installation of pumping and chlorination facilities at WDUs
- Construction and rehabilitation of district water mains and networks
- Installation of customer water meters
- Construction of wells with shut-off valves.

(8) Khanka District: Construction and rehabilitations of water treatment and distribution facilities
- Construction and rehabilitation of Tayanch pumping station, Tayanch WDU, Turkiston WDU, Pakhtakor pumping station, Khankaobod WDU, Durmon WDU, Markazi-2019 WDU, Gulistan WDU, Dustlik WDU, Ilgor WDU, Znakhos WDU, Gairat WDU, Nurobod WDU, Yosh Kuch WDU, Madaniyat WDU, and Markaziy 1960 Production Base
- Installation of pumping and chlorination facilities at WDUs
- Construction and rehabilitation of district water mains and networks
- Installation of customer water meters
- Construction of wells with shut-off valves.

(9) Shavat District: Construction and rehabilitations of water treatment and distribution facilities
- Construction and rehabilitation of Idalikala WDU, Arbob WDU, Oydin WDU, Buirachi WDU, Markaziy WDU, Archazor WDU, Khitoy WDU, Arytom WDU, Mevazor WDU, Kirgok Boyi WDU, Gulistan WDU, Monok Markaziy WDU, Chigatoy WDU, Madaniyat WDU, Monok-2 WDU, Ogohiy WDU, Eshonkala WDU, Ok Kul WDU, Yangi Burlok WDU, Kushkupir WDU, and Markaziy WDU Production Base
- Construction of water conduit from Markaziy WDU to Monok Markaziy WDU
- Installation of pumping and chlorination facilities at WDUs
- Construction and rehabilitation of district water mains and networks
- Installation of customer water meters
- Construction of wells with shut-off valves.

(10) Gurlen District: Construction and rehabilitations of water treatment and distribution facilities
- Construction and rehabilitation of Moily WDU, Gurlen WDU, Nurafshon WDU, Pakhtakor WDU, Besh Uy WDU, Hizir Eli WDU, Dustlik Bogi WDU, Baldokli WDU, Birlashgan WDU, Kangli WDU, Ok Kum WDU, Dusimbiy WDU, Marbugat WDU, and Chinobod WDU
- Construction of wells with pressure regulators, flow meters and shut-off valves
- Installation of pumping and chlorination facilities at WDUs
- Construction and rehabilitation of district water mains and networks

- Installation of customer water meters and flow meters on the main networks.

The proposed project interventions under the wastewater component include construction of WWTP in four districts – Yangibazar, Yangiarik, Shavat, Urgench, and Khazarasp districts and collection and transmission, system to WWTPs, including:

- Construction of pumping stations in Yangibazar, Yangiarik, Shavat, Khazarasp, and Urgench districts
- Construction of gravity sewer network in Yangibazar, Yangiarik, Shavat, Khazarasp, and Urgench districts
- Construction of pressure sewer network with two lines in Yangibazar, Yangiarik, Shavat, Khazarasp, and Urgench districts
- Construction of house sewer connections in Yangibazar, Yangiarik, Shavat, Khazarasp, and Urgench districts
- Reconstruction of pumping station in Urgench district
- Modernization of sewage pumping station in Urgench district
- Reconstruction of gravity sewer network in Urgench district
- Reconstruction of pressure sewer network with two lines in Urgench district.

D. ESMPF

As the locations of all the proposed project components have not yet been identified, and the construction methodology will be determined later in the detailed design stage, an ESMPF with RPF has been prepared. The ESMPF outlines the environmental and social safeguard procedures to be followed during the project implementation and provides criteria to determine whether an ESIA is required or a simpler ESMP for a subproject will suffice.

The main objective of the ESMPF is to ensure that all project activities are assessed and implemented in compliance with Uzbekistan's applicable regulatory framework, the AIIB Environmental and Social Policy (ESP), and Environmental and Social Standards (ESS). The ESMPF outlines the generic potential impacts of the project activities and proposes mitigation measures to address these impacts. It also outlines the principles and procedures for conducting environmental and social assessments and involuntary resettlement planning for the project activities.

E. Environmental and Social Category of the Project

According to AIIB's ESP, the project has been classified as Category A, considering the nature of the project activities and local environmental and social contexts. However, the environment category of each subproject will be determined based on the criteria outlined in the ESMPF. An ESIA will be needed for subprojects under Categories A and B, followed by the preparation of a corresponding ESMP.

F. Environmental and Social Management Plan

Objectives of the Assignment. The objectives of the environmental and social assessment and management are to provide input into the subproject design to enhance the benefit of the subproject equally for all stakeholders (institutional stakeholders and community residents), including vulnerable groups, and ensure that the adverse impacts of the project on the physical, biological, and human environment are avoided, minimized, mitigated, or compensated, and integrate the environmental and social considerations into the project implementation while complying with national and AIIB environmental and social assessment requirements.

Methodology. This assignment will involve various methods such as desk reviews, field surveys, data collection, and analysis. Field tools such as instrument monitoring, field surveys, focus group meetings, workshops, questionnaires, census surveys, and in-depth interviews will be used. Analysis and assessment tools may include matrices, risk assessment techniques, and geographic information system-based analysis and modeling. Data gathering and analysis will be carried out in a consultative and participatory manner, involving local communities and other stakeholders. The ESIA team will work closely with the engineering design team to integrate the results of field surveys, environmental modeling, and feedback from stakeholder consultations into the engineering design.

Tasks. The scope of work under the ESIA include the following key tasks:

Task 1: Review of the project scope and subproject details. This task requires a comprehensive understanding of the main project and its subproject, for which an ESIA needs to be conducted. Special attention should be given to the components that may potentially affect the environmental and social resources of the subproject area, including but not limited to the following factors:

- Proposed location, sites conditions and alternatives
- Proposed construction methodology concept and alternatives
- Construction and rehabilitation of permanent facilities
- Construction of temporary facilities (including construction camp)
- Manpower requirement
- Equipment, vehicles, materials, and supporting facilities such as batching plant
- Site preparation (demolition of old facilities, site clearance, excavation, and levelling)
- Waste generation
- Water use plan during construction and operation phases
- Project schedule and institutional arrangements
- Project facilities testing and commissioning.

Task 2: Scoping. Scoping aims to identify the potential area of influence and possible interactions between the project components, environmental and social resources, and receptors inside the area of influence.

- Area of Influence (AoI). Scoping will be undertaken to delineate the potential AoI for the subproject (and, therefore, the relevant study area). Under AIIB ESF's definition, the AoI includes the area likely to be affected by the project, including all its ancillary aspects. So, for the AoI, will be used information from the site visits, scoping opinion meetings with local authorities, and good international industry practices on potential environmental and social impacts of the water and wastewater projects to define the subproject AoI. In addition, the AoI should consider sanitary buffer zones for the project components, noise and odor generated by the project facilities, and other aspects of the subproject.
- Sensitive Receptors and Resources. A list of determined resources and receptors under the specific subproject and describing their type, category, and impact will be developed.
- Interaction Matrix. The potential impacts identified and screened throughout the scoping study will be integrated into the Interaction Matrix. All potential interactions, regardless of probability of occurrence are considered at this stage. So, the matrix should illustrate project activities, resources, and receptors, expected potential impact, and applicable AIIB ESS.
- Stakeholder analysis. The key stakeholders will be identified, and their respective importance and influence on the subproject will be analyzed. Based on the desk review and a reconnaissance survey of the proposed project area, a tentative list of stakeholders can be composed. This list of key stakeholders should be confirmed during consultations with policymakers, representatives of local authorities, line departments, and NGOs. Under each stakeholder category, specific subgroups will be identified per specificity (gender, residential location, occupation, etc.), outlining their concerns and perceptions about the project.

Task 3: Review of Applicable National Regulatory Framework and AIIB Safeguard Requirements. A thorough review of the laws, regulations, and policies related to environmental and social assessment in Uzbekistan, along with the AIIB ESP and ESS, will be conducted. The regulatory framework gap analysis of the relevant national regulations and AIIB's ESF provided in ESMPF will be updated as required. The revised gap analysis will also be summarized in tabular form. Additionally, the applicable national environmental standards, such as noise level, water quality, ambient air quality, etc., will be compared with those of the World Bank Group Environmental, Health, and Safety Standards. The project should adhere to pollution control methods that are consistent with international best practices as

required by the AIIB ESF. If there is a difference between national and international standards, the borrower must comply with the more stringent one.

Task 4: Environmental and Socioeconomic Baseline Assessment. This task requires gathering essential environmental and socioeconomic data from primary and secondary sources to establish a baseline for the project area. This task also aims to enhance the generic baseline description included in the ESMPF. The ecological baseline will cover the following areas:

- Physical environment: Geographic location, climate, topography and terrain, geology, soils, seismicity, water resources, climate, air quality, and acoustic environment.
- Biological environment: Ecosystem, flora and fauna, habitat condition, flora and fauna, biological receptors likely to be affected by the project, endangered species, sensitive habitats, and protected areas.
- Socioeconomic baseline: Province- and district-level socio-economic context with description of the demographic profile (population density, growth, distribution, gender ratio, migration, and ethnicity), economy (employment, income, economic climate, land use and tenure, housing), education and healthcare, access to public services and infrastructure, and the presence of archaeological and cultural heritage sites in the project area.

  This subtask also includes data gathering on vulnerable groups and gender analysis with determining access to resources, roles and responsibilities, constraints, and priorities in the water supply and wastewater sector to design appropriate gender-sensitive measures, components, and indicators to respond to gender issues.

  The ESIA team and consultants preparing the Resettlement Plan will coordinate activities to achieve synergies, ensure information consistency, and avoid duplication of data collection and analysis.

Task 5: Stakeholder engagement. Stakeholder engagement will involve a range of tools, including focus group discussions, community meetings, one-to-one interviews, consultation workshops, and socio-economic surveys. These consultations aim to share information about the project and the key findings of the ESIA with stakeholders, obtain feedback about the project, perceived impacts, and preferred mitigation measures, and collect information on environmental and socio-economic baselines in the subproject area.

The consultations will be conducted with relevant departments, institutions, community leaders and residents, NGOs, and academia. Separate consultations will be conducted with women in the subproject area to focus on gender issues. These consultations with affected groups will be held in a culturally appropriate

way to ensure they are meaningful to those being consulted. Relevant materials will be provided to these groups promptly before consultations and in a form and language that is understandable and accessible to the groups being consulted. The consultation meetings will be documented with the following developing a strategy for continued engagement during the project implementation.

The draft ESIA report will be publicly available to affected groups and local NGOs, and online. The executive summary will be translated into local language and disclosed.

The ESIA team and consultants preparing the Resettlement Plan will coordinate activities to achieve synergies, ensure information consistency, and avoid duplication of data collection and analysis.

Task 6: Impact Assessment. This task is the most crucial part of the entire assignment and builds upon the initial scoping and analyses carried out during Task 2. It also benefits from the generic impact assessment included in the ESMPF. The goal of this task is to evaluate all direct and indirect impacts and risks that may arise in the short- and long-term due to the construction and operation phases of the subproject. To achieve this, an internationally recognized methodology will be utilized to identify and characterize each potential impact of the subproject on various aspects of the physical, biological, and socioeconomic environment. During the study, a matrix will be created to outline the interaction of the project activities with different aspects of the environment. Based on its nature and probability of occurrence, the significance of each potential impact will be assessed as severe, moderate, mild, or negligible. The consultant will use qualitative and quantitative approaches (utilizing analytical and mathematical means) to determine the potential impacts and will distinguish between significant positive and negative effects, direct and indirect effects, and immediate and longer-term impacts, particularly those adverse ones likely to be unavoidable or irreversible.

Site-specific impacts will be evaluated along with the general effects of the subproject. The assessment will identify sensitive receptors on-site and analyze each potential impact separately in the AOI. Special attention will be given to labor health and safety and the effects of labor influx on the community. The proposed measures inter alia will include Codes of Conduct for contractor's workers and overall project personnel for interacting with local population, and specifically with women, children, and senior adults.

Once the impacts are identified, appropriate avoidance, mitigation, or compensatory measures will be determined to address each potential impact in order of preference. Any residual impacts after implementing mitigation measures will be identified and offset or compensation will be determined accordingly.

The consultant will work closely with the engineering design team to evaluate the project's impacts on the climate and analyze climate adaptation. An internationally recognized methodology will be used to estimate the gross emissions of greenhouse gases resulting from the project and compare them to baseline emissions.

Task 7: Environmental and Social Management Plan. Once the impact assessment is completed, an environmental and social management plan (ESMP) will be developed in close collaboration with the implementing agency and other relevant entities. The ESMP will be included in the bidding documents for construction contracts and will be mandatory for contractors to follow. It will outline the strategies for implementing the mitigation measures identified earlier in the assignment and lay out a plan for monitoring, reporting, and capacity-building programs.

Task 8: Grievance Redress Mechanism (GRM). The consultant will carefully examine the GRM proposed in the ESMPF. If necessary, the GRM will be improved in compliance with the AIIB ESF and national complaint management system. The primary focus of the GRM will be to ensure that women and vulnerable groups have access to grievance redressal and engagement mechanisms. Furthermore, the consultant's recommendations will aim to make these mechanisms more responsive to their voices and needs.

G. ESMP Structure

The tasks described above will result in the compilation of an ESMP for the specific subproject and will have the following proposed structure.

(1) Executive Summary. An executive summary is a brief overview of the ESMP that should be easily understood by the public. It should cover all aspects of the report in a clear and concise manner. The summary should describe both the process and the study's output. In other words, it should explain what was done and what resulted from it.

(2) Introduction. This section will introduce the ESMP by providing information about its background, objectives, principles, process, and methodology. It will also specify the subproject proponents and study team and offers other relevant information. Additionally, this section should describe the ESMP report structure to help facilitate its use. A subproject map is also provided in this chapter.

(3) Legal and Administrative Framework. This chapter aims to provide an overview of the laws, regulations, and standards related to environmental and social assessment and management, including resettlement issues, at national and

international levels. It will identify the institutions responsible for enforcing these laws and their roles in project implementation. The chapter will pay particular attention to local institutions and structures at project sites to ensure the inclusiveness and participation of all affected people, groups, and communities. Furthermore, this chapter will discuss the AIIB's ESP and ESSs and examine how they apply to the subproject. It will also compare the AIIB standards with the national legislation in Uzbekistan, highlighting any gaps between the two sources of requirements. Finally, the chapter will explain how the ESMP bridges the gaps between the AIIB standards and the national legislation. All the information will be summarized in a tabular form for better understanding.

(4) Description of Subproject. This chapter aims to provide a brief overview of the subproject, which is an objective of ESMP. It will include a summary of the background of the overall project and a specific subproject. The components of the subproject will be discussed in terms of the permanent and temporary facilities and associated civil works. The chapter will also cover workforce requirements, labor camps, machinery, equipment, plant, and building materials. A description of the construction methodology will be finalized by specifying the subproject implementation period and overall cost. Finally, the chapter will identify the specific activities to be implemented during the design, construction, operation, and maintenance phases.

(5) Environmental and Social Baseline Assessment. This chapter will discuss the findings of the literature review, environmental instrument monitoring, field surveys, social and economic surveys, and data collection that were conducted at various project sites. The description will cover the physical, biological, and socio-economic environment of the subproject area. Additionally, this chapter will include an estimated number of people and types that are likely to be affected or displaced by the project activities. The data and description provided will be relevant to the subproject location, design, operation, and impact assessment decisions. Furthermore, we will also describe the trends in the area's key environmental parameters.

(6) Impact Assessment and Mitigation Measures. This chapter will begin by presenting the scoping process and its outcomes, which were conducted at the start of the study. It will identify the significant impacts and the criteria used to determine this. The methodology and outcomes of the detailed impact assessment during the assignment will be described.

The chapter will then present the impact assessment during the design, construction, and operation phases on the physical, biological, and socioeconomic environment and the climate. The analysis will cover the issues of

the proposed Subproject and associated onsite and off-site facilities, including borrow pits, labor camps (if any), transportation, and storage of construction equipment and materials. All generic and site-specific impacts will be assessed.

Appropriate impact avoidance, minimization, mitigation, and compensatory measures will be detailed for each impact. The potential impacts, significance, and associated mitigation measures will also be presented in a tabular form.

(7) Environmental and Social Management Plan. The ESMP chapter is an essential part of the ESIA report. It will cover the following key aspects:

- Implementation arrangements for the project covering responsibilities for overall project management, project coordination at local level and responsibilities for environmental and social management, implementation, and monitoring.
- A mitigation plan that outlines measures to mitigate the various impacts of each subproject activity. It will also assign responsibilities for implementation, monitoring, and supervision, along with monitoring indicators.
- Internal and external monitoring arrangements with roles and responsibilities, monitoring methodology, frequency, and documentation requirements. There will be two types of monitoring: compliance monitoring and effects monitoring.
- Capacity building requirements specifying certain activities, participants, implementors, and implementation period.
- ESMP implementation cost.
- Documentation and reporting.

(8) Stakeholder Engagement. This section of the ESMP should provide details about the objective, process, and outcome of stakeholder consultations carried out during the ESMP preparation and other associated activities, such as RP preparation. It is important to document the feedback and comments of all stakeholders, including project-affected people, representatives of vulnerable groups, and representatives of institutional stakeholders such as government officials, NGOs, line department officers, and representatives of public health service and territorial departments of environmental regulators. This section should also explain how the feedback received from stakeholders has been or will be addressed. The record of consultation and participation should be enclosed in the ESMP. Additionally, this section should include a stakeholder engagement plan that outlines consultations to be conducted with various stakeholders during subsequent stages of subproject implementation (i.e., construction and O&M).

This section will also specify activities to disclose the ESMP in a timely manner, an accessible place, form, and language(s) understandable to affected people and other stakeholders. As part of information disclosure, the ESMP will be translated in Russian and its summary in Uzbek.

(9) Appendices. The ESIA will contain supplementary sections as appendices.

H. Applicable Legislation and Standards

The following legislation and standards will be applicable for preparing the ESIA:

(3) Applicable Uzbekistan regulatory framework
(4) AIIB ESF with ESP and ESSs.

Appendix 4: Terms of Reference for the Preparation of Resettlement Plan

A. Introduction

The Government of the Republic of Uzbekistan (GoU) has requested financing from the Asian Infrastructure Investment Bank (AIIB) to develop the water supply and sanitation infrastructure in the Karakalpakstan and Khorezm regions. The implementation of this project aims to provide reliable, safe, and sustainable water supply and sewage services, which will significantly improve the public health and living conditions of the people residing in these areas. In compliance with the national regulations and the AIIB's Environmental and Social Framework (ESF), an Environmental and Social Management Planning Framework (ESMPF) with Resettlement Planning Framework (RPF) has been prepared to address the environmental and social impacts of this proposed project.

The ESMPF includes a Resettlement Planning Framework (RPF) and outlines the need to prepare a Resettlement Plan (or an Abbreviated Resettlement Plan) for each subproject that may potentially cause involuntary resettlement impacts such as physical and or economic displacement of people. This document provides the terms of reference (ToR) for the RP preparation under the subprojects, while a ToR for ESIA and ESMP is provided separately.

B. Background

The Government of Uzbekistan (GoU) initiated the Khorezm region water supply and sewerage project. The project aims to enhance service delivery by Khorezm Suvtaminot LLC and improve local population access to safe, reliable, and sustainable water and wastewater services managed using environmentally sound practices.

The coverage of water supply services in the Khorezm Province is 86.9% as of 2022, according to the Khorezm Province Department of Statistics Agency. The Khorezm Province's water system deteriorated due to a lack of investment and deferred maintenance, resulting in a substantial decrease in the quality and reliability of the water supply service. In addition, the quality and scarcity of water are two of the main issues in Khorezm Province. Water sources present a high rate of salinity and turbidity, especially in winter. The water sampling and quality control campaign confirm incompliance with the national standards (e.g., the unacceptably high number of coliform bacteria has been detected in five sampling points, and the total permissible water hardness is exceeded in 12 out of 13 samples).

Most Khorezm Province's districts have a scheduled water supply with access to drinking water for only a few hours daily. The water supply system was built in the 1970s and 1990s.

The condition of the distribution network is very poor. The leakage rate varies from 75 to 92 per 100 km (increasing trend). The old metal pipes are corroded. Khanka, Gurlen, and Shavat districts have the highest leakage rate. The water utility's operation and maintenance (O&M) personnel reported that about a quarter of existing networks are asbestos-containing pipes laid over 30-40 years ago.

As of 01.04.2023, Khorezm Suvtaminot LLC reported population coverage with wastewater services as 6-8%, a low enough figure to maintain sanitary and epidemiological well-being in the province. About half of wastewater pumping stations require reconstruction. Some are in critical condition, and others are entirely out of service. Urgench, Khiva, and Pitnak networks are in a deplorable state. No flow meters are installed in the network. There is no record of pump running hours on the surveyed pumping stations.

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C. Project Overview

The project development objectives are to improve the availability and sustainability of water supply and sewerage services in the region. The Project will focus on the improvement of water supply and sewerage services in the selected districts and certain urban centers, along with improving the living conditions in the province.

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(1) Water Mains:
- Construction of the Gurlen-Shavat water main with electrochemical protection
- Construction of the Koromon-Kushkupir water main with electrochemical protection and flow and pressure control valves
- Construction of the Pitnak-Urgench water main with electrochemical protection

(2) Urgench District: Construction and rehabilitations of water treatment and distribution facilities

- Construction and rehabilitation of Chakkakuli WDU, Urtadurmon WDU, Bobodekhkon WDU, H. Olimjon WDU, Miroblar WDU, Yukoriovul WDU, Cholish WDU, Kumravot WDU, Obod WDU, Orzu WDU, Shohidonlar WDU, Chandir WDU, Yangi Urtabog WDU, Katta Bog WDU, Oyok Bog WDU, Turkmanlar WDU, Koromon WDU, and Ravot WDU
- Installation of pumping and chlorination facilities at WDUs
- Construction and rehabilitation of district water mains and networks
- Installation of customer water meters
- Construction of wells with shut-off valves.

(3) Khanka District: Construction and rehabilitations of water treatment and distribution facilities

- Construction and rehabilitation of Tayanch pumping station, Tayanch WDU, Turkiston WDU, Pakhtakor pumping station, Khankaobod WDU, Durmon WDU, Markazi-2019 WDU, Gulistan WDU, Dustlik WDU, Ilgor WDU, Znakhos WDU, Gairat WDU, Nurobod WDU, Yosh Kuch WDU, Madaniyat WDU, and Markaziy 1960 Production Base
- Installation of pumping and chlorination facilities at WDUs
- Construction and rehabilitation of district water mains and networks
- Installation of customer water meters
- Construction of wells with shut-off valves.

(4) Shavat District: Construction and rehabilitations of water treatment and distribution facilities

- Construction and rehabilitation of Idalikala WDU, Arbob WDU, Oydin WDU, Buirachi WDU, Markaziy WDU, Archazor WDU, Khitoy WDU, Arytom WDU, Mevazor WDU, Kirgok Boyi WDU, Gulistan WDU, Monok Markaziy WDU, Chigatoy WDU, Madaniyat WDU, Monok-2 WDU, Ogohiy WDU, Eshonkala WDU, Ok Kul WDU, Yangi Burlok WDU, Kushkupir WDU, and Markaziy WDU Production Base
- Construction of water conduit from Markaziy WDU to Monok Markaziy WDU
- Installation of pumping and chlorination facilities at WDUs
- Construction and rehabilitation of district water mains and networks
- Installation of customer water meters
- Construction of wells with shut-off valves.

(5) Gurlen District: Construction and rehabilitations of water treatment and distribution facilities

- Construction and rehabilitation of Moily WDU, Gurlen WDU, Nurafshon WDU, Pakhtakor WDU, Besh Uy WDU, Hizir Eli WDU, Dustlik Bogi WDU, Baldokli WDU, Birlashgan WDU, Kangli WDU, Ok Kum WDU, Dusimbiy WDU, Marbugat WDU, and Chinobod WDU

- Construction of wells with pressure regulators, flow meters and shut-off valves
- Installation of pumping and chlorination facilities at WDUs
- Construction and rehabilitation of district water mains and networks
- Installation of customer water meters and flow meters on the main networks.

The proposed project interventions under the wastewater component include construction of WWTP in four districts – Yangibazar, Yangiarik, Shavat, Urgench, and Khazarasp districts and collection and transmission, system to WWTPs, including:

- Construction of pumping stations in Yangibazar, Yangiarik, Shavat, Khazarasp, and Urgench districts
- Construction of gravity sewer network in Yangibazar, Yangiarik, Shavat, Khazarasp, and Urgench districts
- Construction of pressure sewer network with two lines in Yangibazar, Yangiarik, Shavat, Khazarasp, and Urgench districts
- Construction of house sewer connections in Yangibazar, Yangiarik, Shavat, Khazarasp, and Urgench districts
- Reconstruction of pumping station in Urgench district
- Modernization of sewage pumping station in Urgench district
- Reconstruction of gravity sewer network in Urgench district
- Reconstruction of pressure sewer network with two lines in Urgench district.

D. ESMPF

As the locations of all the proposed project components have not yet been identified, and the construction methodology will be determined later in the detailed design stage, an ESMPF with RPF has been prepared. The ESMPF outlines the environmental and social safeguard procedures to be followed during the project implementation and provides criteria to determine whether a RP (or ARP) is required for a subproject.

The main objective of the ESMPF is to ensure that all project activities are assessed and implemented in compliance with Uzbekistan's applicable regulatory framework, the AIIB Environmental and Social Policy (ESP), and Environmental and Social Standards (ESS). The ESMPF outlines the generic potential impacts of the project activities and proposes mitigation measures to address these impacts. It also outlines the principles and procedures for conducting environmental and social assessments and involuntary resettlement planning for the project activities.

E. Environmental and Social Category of the Project

According to AIIB's ESP, the project has been classified as Category A, considering the nature of the project activities and local environmental and social contexts. However, the environment category of each subproject will be determined based on the criteria

outlined in the ESMPF. An ESIA will be needed for subprojects under Categories A and B, followed by the preparation of a corresponding ESMP.

F. Resettlement Plan

Objectives of the Assignment. The overall objective of resettlement planning is to ensure that the adverse impacts of land acquisition and involuntary resettlement are mitigated and that the affected people's livelihoods are improved or at least restored.

Methodology and Scope of Work. As part of this assignment a range of tools will be applied to ensure a thorough and comprehensive approach. This will include both desk reviews and field surveys, with a variety of tools being used to gather data and insights, such as focus group meetings, census surveys, key informant interview, and one-to-one interview.

It's important that the resettlement planning is carried out in a consultative and collaborative manner, with local authorities, affected communities and other stakeholders being involved in the process. The consultant team will be working closely with the engineering design team. This will allow us to synchronize the field surveys and community consultations with the engineering design progress to synchronize the field surveys and stakeholder consultations.

The resettlement planning will be consisted of the following key tasks:

Task 1: Review of the Project and Subproject Details. This task requires a comprehensive understanding of the project and its subproject, with particular attention given to the components potentially involving resettlement impacts. As part of this task, the RPF included in the ESMPF of the project will be thoroughly reviewed and the RP preparation procedure will be followed.

Task 2: Socioeconomic Baseline Development. This task involves gathering essential socioeconomic information from primary and secondary sources to create a socioeconomic profile of the population and establish a baseline for the subproject area. The information collected will cover household characteristics such as production systems, labor, household organization, baseline livelihood information (including income from formal and informal activities), standard of living, and health status. The data will also include information on land tenure, ownership, use, transaction practice, relevant institutions overseeing land management, and traditional practices related to land use and land acquisitions. Additionally, the data will cover patterns of social interaction, such as social networks and support systems, and the potential impact of the subproject on these social interactions, public infrastructure, and social services. All surveys, interviews, and data collection will integrate gender aspects to determine the gender issues and trends in the

subproject area. A sample-based study will be used to collect the above data. The baseline will not be limited to the subproject-affected people (PAPs). This task will be built upon the generic baseline description included in the ESMPF.

Socioeconomic baseline should cover but not be limited to the following with gender disaggregated data:

- Population and demography
- Vulnerable groups and poverty profile
- Pattern of land use including land tenure, ownership, and transaction practice
- Agricultural practice (formal and informal)
- Industry
- Occupational structure
- Expenditure and income from formal and informal economic activities
- Household characteristics including household composition, income, housing, and living conditions
- Access to public services and infrastructure including water and sewerage systems
- Access to social services (education, health, communication) including distance to schools, to primary health facility
- Access to transport infrastructure
- Local government institutions; community organizations and patterns of social interaction
- Presence of archaeological and cultural heritage sites in the subproject area.

As part of the assigned task, the consultant will conduct a gender survey to identify gender-related issues and trends within the subproject area. Relevant data will be collected using various methods, including instrument monitoring field surveys and sample-based surveys. The gender baseline data should encompass indicators such as women's mobility, gender-based disparities in accessing water and sanitation services, and gender-based variations in preferences and concerns related to water availability and quality.

The RP team and consultants preparing the ESIA Report or ESMP will coordinate activities to achieve synergies, ensure information consistency, and avoid duplication of data collection and analysis.

Task 3: Review of Applicable National Regulatory Framework and AIIB Safeguard Requirements. A thorough review of the laws, regulations, and policies related to land acquisition and resettlement planning in Uzbekistan will be undertaken by the consultants.

With regard to AIIB policies on land acquisition and resettlement planning, the consultant will present relevant brief description of the key provisions of AIIB ESP and specific provisions of AIIB ESS 2 (Involuntary Resettlement). The ESS's applicability to the particular subproject will be presented in tabular form, specifying which ESS (ESS1, ESS2, or ESS3) will be triggered under specific subproject activity.

The regulatory framework gap analysis of the relevant national regulations and AIIB's ESF provided in ESMPF will be updated as required. The gap analysis will be summarized in tabular form for better understanding.

Task 4: Development of Entitlement Matrix. The consultants will determine how to set a cut-off date for compensation eligibility and make this information available to the public. They will also specify the compensation type for different categories of losses and affected people, such as those impacted by land acquisition, loss of access to resources or properties, and loss of housing, businesses, water sources, livelihoods, and cultural sites. The ESMPF with RPF includes an entitlement matrix, which will be updated for the subproject as an outcome of this task. The matrix will define the criteria for determining compensation entitlement for each type of resettlement impact following national legal requirements and AIIB Environmental and Social Standards. This section will also outline the methods for assessing the value of assets and livelihood restoration.

Task 5: Census survey of PAPs. This task aims to create a resettlement impact profile for the subproject. To achieve this, relevant government departments will be contacted to obtain land ownership records. This will help determine the ownership of the affected lands and structures. Additionally, the government and market rates for land sale or purchase in the subproject area will be collected. The task includes the following specific activities:

- Collect thematic maps that identify population settlements, infrastructure, soil composition, natural vegetation areas, water resources, and land use patterns.
- Conduct a census that enumerates the affected people and register them according to location.
- Obtain records of land ownership.
- Obtain records of land sales and purchase rates.
- Conduct a comprehensive inventory of potential losses within the demarcated impact boundary, including land, structures, trees, crops, public and communal assets, and encroachers.
- Create a household impact profile for all impacted households, documenting their assets and losses.

- Establish a subproject impact database that covers the impacts on the affected population in terms of types and quantities.

Task 6: Impact Assessment, Compensation, and Loss of Livelihood. The consultants will assess the resettlement impacts identified in the previous task and will determine the severity of these impacts (e.g., displacement of over 200 people) and how it affects vulnerable groups and households led by women. Along with these activities, the consultant will specify required actions and measures for resettlement management and livelihood restoration. These measures will be developed based on the identified impacts on private, communal, and public assets, and in accordance with the entitlement matrix prepared earlier.

Consultation with the local communities is crucial in developing the compensation package and resettlement interventions. This process should be highly participatory to ensure the compensation and resettlement packages reflect the community's feedback. Moreover, the compensation and resettlement packages should be compatible with local cultural preferences and traditions.

Task 7: Stakeholder Consultation and Participation. Resettlement planning will be carried out in a highly transparent and participatory manner, as previously described. The first step will be to review the stakeholder engagement that was conducted and the consultation framework that was prepared during the ESMPF/RPF planning phase. Following this, a stakeholder analysis will be conducted to identify key stakeholders and determine their respective importance.

The consultations will be initiated and involve a range of tools such as focus group discussions, community meetings, one-to-one interviews, consultation workshops, and socio-economic surveys. These consultations will be conducted with the relevant departments, institutions, local communities (particularly those who will be affected by the subproject), media personnel, NGOs, and medical and educational facilities. Separate consultations will be held with women in the subproject area, with a focus on gender issues. The entire consultation process will be documented by the consultants, who will also develop a strategy for continued engagement during the resettlement implementation.

Task 8: Institutional Setup and Implementation arrangements. The consultants will discuss with project proponents the proposed organizational setup and implementation arrangements for resettlement implementation included in ESMPF, and propose any amendment as required. These arrangements will cover, at least, the following:

- Organizational setup at the water utility and JSC Uzsuvtaminot level down to the implementation level, their respective responsibilities, and staffing

- A grievance redress mechanism, its setup, operating modalities, and procedures, considering the availability of judicial recourse and traditional community dispute settlement mechanisms and how to ensure equitable access to men and women and different population groups
- Implementation schedule
- Internal monitoring and external monitoring arrangements and indicators
- Documentation and reporting requirements.

Task 9: Cost Estimate and Budgeting. The consultants will calculate the costs for proposed compensation and livelihood restoration measures. They will prepare a budget for the Resettlement Plan and specify the financing arrangements. The consultants will identify and suggest ways to determine lost assets' market and replacement costs. They will also describe the proposed types and levels of compensation that align with local laws. In addition, they will explain the supplementary measures required to meet the Bank policy standards for replacement costs. The costs and budget will include a detailed estimate of all resettlement and compensation activities, including allowances for inflation, transaction fees, contingencies, and management costs for the RP implementation. The budget will also cover sources of funds and arrangements for the timely flow of funds. The consultant will discuss and agree with the government on the above and financing arrangements.

G. RP Structure

The RP will be compiled as an outcome of the tasks described above. Its indicative structure is discussed below.

(1) Subproject Description. This section provides a brief overview of the subproject and its context. It will include a summary of the subproject's background and components. The primary focus of this section is to identify potential resettlement issues associated with each component and subcomponent of the project and to explain why the Resettlement Plan (RP) is being developed.

(2) Legal Framework. This section will examine the national laws governing land acquisition and other assets in Uzbekistan. The consultant will also explore the country's various systems of land tenure and ownership, the different legal instruments related to government and individual acquisitions, and policies for resettlement and compensation. The RP will highlight a gap in the various legal instruments and identify the institutions legally mandated to implement these legal instruments at all levels where subproject activities are likely to occur. Special attention will be given to local institutions and structures at the subproject site(s). The institutional arrangements will include implementation and monitoring

mechanisms that ensure the participation and inclusiveness of all affected people, groups, and communities.

The RP will outline the AIIB's requirements for involuntary resettlement (ESS 2) and evaluate how this applies to the specific subproject. Additionally, the RP will provide a gap analysis between the AIIB's standards on involuntary resettlement and the applicable regulatory framework of Uzbekistan. The document will suggest practical measures and recommendations to bridge the gap between the two sources of requirements, which will be summarized in a tabular form.

(3) Socioeconomic Profile of Project-Affected People. This section of the RP aims to present the results of the social and economic surveys conducted at the subproject sites that triggered the involuntary resettlement policy. The description will provide information about the social structure, gender aspects, economic and livelihood activities, social characterization of potentially affected people, the numbers likely to be involved, different social institutions, social capital, and mechanisms for social cohesion.

This RP section will also include an estimated number and profile of people likely to be affected or displaced by subproject activities. The different categories of affected persons may consist of those who may lose legal title to land, those without legal title but who use the land for economic or residential purposes, and those who may lose temporary access to property or business sites. The RP will identify the appropriate categories based on the impacts noted or expected.

(4) Eligibility and Entitlement. The RP will consider all resettlement impacts of the subproject during their analysis, especially with regards to different subproject sites and forms of social and resettlement impacts. The RP will specify the criteria by which affected people will be considered eligible for compensation and other resettlement assistance. Compensation criteria should comply with national legal requirements and provisions, AIIB ESS 2, social sustainability and poverty reduction factors, and fairness to avoid conflict and dissatisfaction.

This section will also discuss and document the unit of compensation, whether individuals, families, or groups, and indicate scenarios or cases for applying each unit of analysis or a combination of units where appropriate. Based on the resettlement impact survey and relevant analysis of losses, an entitlement matrix with respect to both temporary and permanent displacement will be prepared and will identify the following:

- All categories of PAPs, including property owners, land right holders, tenants, squatters, sharecroppers, grazers, natural resources users,

shopkeepers, vendors, and other service providers, communities, and specifically vulnerable groups.

- All types of loss associated with each category, loss of physical assets, loss of access to physical assets, loss of income, loss of public infrastructure and elements of cultural significance (as identified in the inventory of losses).
- All types of compensation and assistance to which each category is entitled, including compensation for or replacement of land and natural resources, compensation for immovable assets, income, moving assistance and post-resettlement support (such as technical assistance, extension and skills training, and access to credit).

This information will be accompanied by a rationale explaining the reasoning behind the entitlement.

(5) Valuation of Assets. This section will outline the methods used to determine the value of assets eligible for compensation according to national or AIIB ESS 2. The process should include an inventory of assets, assigned values, and an agreement with each affected person. The final determination of values should also consider inflationary factors. The RP should clearly state that revised values may be necessary if there are significant discrepancies between the dates for value determination and the actual payment date. Valuing assets should be a collaborative process with affected persons, not an imposition. The RP should demonstrate that the methods used were fully participatory and acceptable to all stakeholders.

(6) Assessment of Resettlement Impacts. This section of the RP will discuss the information collected through a census survey (Task 5) and impact assessment (Task 6). A summary of all resettlement impacts will be presented, along with estimates of compensation and assistance to be given to PAPs. This information will cover details such as land acquisition, affected structures, damaged crops, felled trees, and affected community and public assets while determining the severity of these impacts. This section will present the compensation and assistance packages to address the subproject's resettlement impacts and will also outline the women-headed households and vulnerable groups, and the assistance they will receive.

(7) Implementation Arrangements. This section will outline the process for organizing arrangements, responsibilities, and roles. It will explain the institutional structure required for implementing all aspects of the resettlement process on a subproject basis. It will also present the key staff positions and their roles. The RP will describe the approval processes for various stages of the compensation work, including the roles and responsibilities of multiple actors. Additionally, this section will provide

information on the actual process for delivering the entitlement, including the roles of different agencies, and reporting formats.

This section will also outline a Grievance Redress Mechanism (GRM) that clearly defines the roles, responsibilities, timelines, and procedures. GRM will describe the options available to PAPs for grievance redressal during resettlement. The RP should indicate how the GRM will be disseminated and made accessible to all PAPs in a clear and understandable manner. The GRM will have a monitoring mechanism built in to check the responsiveness to complaints or grievances lodged. The different channels for receiving complaints and the various stages of the process should be clearly described. Additionally, the redress mechanism should indicate alternatives in case the proposed mechanism, for any reason, does not respond to all grievances and complaints.

This section will present a monitoring framework and methodology. It will clarify the roles of various stakeholders, including the project-affected people, other community residents, and local government authorities, in the implementation and monitoring process. The RP will also provide a template for monitoring with indicators based on the key issues identified and outlined in the RP.

The RP will set out an implementation schedule for the resettlement to avoid confusion with cut-off dates and other timelines, especially because compensation must be paid before any civil works are commended.

(8) Stakeholder Consultation. This section will outline the consultations' objective, process, and outcome during resettlement planning and associated activities such as ESIA preparation. The views and comments of all categories of PAPs and other stakeholders will be documented, and attention will be given to how these comments have been addressed. The RP report will also indicate the record of consultation and participation.

Furthermore, this section will provide a consultation framework for involving PAPs in resettlement planning and implementation until they receive their entitlements. The process will be elaborated and straightforward to avoid confusion and suspicion. It will outline the different levels of consultation, the expected outcomes from the various stages of the consultation, and the participation approach that would be adopted.

The consultants will also propose a mechanism for disclosing the RP to facilitate the client's work. However, the client is responsible for both disclosure and dissemination.

(9) Budget and Funding Arrangements. The RP should provide an overall cost estimate for compensation and assistance, including monitoring of the resettlement process. The financial responsibility of the relevant stakeholders, where applicable, should be categorically stated to avoid ambiguity in the source of funds for resettlement activities. These budgets should take into consideration inflationary tendencies.

H. Applicable Legislation and Standards

The following standards will be applicable for preparing the RP:

(1) Applicable Uzbekistan regulatory framework
(2) AIIB ESS 2.

Appendix 5: Asbestos Management Plan

A. Scope

This Asbestos Management Plan (AMP) applies to all project facilities to be demolished, repaired, or reconstructed. The AMP is prepared to eliminate exposure to asbestos of project personnel through the identification and removal of asbestos where safe to do so. Where elimination is not possible, exposure is to be minimized so far as is reasonably practicable.

B. Purpose

The AMP establishes policy and procedures to manage asbestos and ensure compliance with applicable Uzbekistan and international regulations.

The AMP was prepared to identify, inspect, control, maintain, and improve the handling of asbestos related issues.

C. Definitions

Aggressive method: Removal or disturbance of building material by sanding, abrading, grinding or other method that breaks, crumbles, or disintegrates intact asbestos-containing material (ACM).

Asbestos: A naturally occurring mineral that is mined throughout the world. The most common types of asbestos (chrysotile, amosite, and crocidolite) are removed from the ground and then processed for automobile brakes, floor tiles, pipe and duct insulation, decorative plasters, spray-on fireproofing, and a wide range of other products.

Asbestos-containing material: Any material containing more than one percent asbestos. The project feasibility study revealed that some of the pipes constituting the water networks are made of asbestos from Russia. The network was laid out during the Soviet Union period and has been in operation for over thirty years. The project design includes replacement of old corroded pipes with new one.

Competent Person: A person who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure, and who has the authority to take prompt corrective action to eliminate or mitigate the hazard.

Critical Barrier: Means one or more layers of plastic sealed over all openings into a work area or any other similarly placed physical barrier sufficient to prevent airborne asbestos in a work area from migrating to an adjacent area.

Decontamination area: An enclosed area adjacent and connected to the regulated area and consisting of an equipment room, shower area, and clean room, which is used for the decontamination of workers, materials, and equipment that are contaminated with asbestos.

Demolition: The wrecking or removal of any load supporting structural member and any related razing, removal or stripping of asbestos containing or presumed ACM.

Disturbance: Activities that disrupt ACM or that generate visible debris. It includes but is not limited to cutting, kicking, striking, drilling, sawing, grinding, or otherwise breaking or damaging asbestos or presumed ACM. Suspect asbestos containing materials also include thermal system insulation (TSI), fireproofing insulation, ceiling deck, moisture barriers, roofing, pipes, or siding.

Employee exposure: Exposure to airborne asbestos that would occur if the employee were not using respiratory protective equipment.

Fiber: A particulate form of asbestos, 5 micrometers or longer, with a length-to-diameter ratio of at least 3 to 1.

D. Responsibility

The contractors employed by the project are responsible for the construction sites where their employees may come in contact with ACM during demolition, repair, or reconstruction of the project facilities. Therefore, the contractors must follow the provisions of the project AMP within their project sites.

The contractor should have at least two employees skilled in ACM identification and management.

E. Identification of ACM in the Workplace

Identifying asbestos or ACM is the first step in managing the risk of exposure. The identification of asbestos should be a part of the pre-job planning process. Prior to any work being undertaken that could result in the possible disturbance of ACM, including before demolition or refurbishment, the project manager needs to:

(1) Review the asbestos register, if any.
(2) Arrange for a visual inspection by a competent person if prompted by the Asbestos Register/age of building.
(3) Arrange for testing if suspect ACM is found.

If it is uncertain as to whether material contains asbestos, a sample is to be taken for analysis by a competent person. Where there are inaccessible areas that are likely to contain ACMs, the contractor should assume that asbestos is present.

Asbestos may be identified via the following means:

- Information contained in the Asbestos Register (a copy of the Asbestos Register must be provided to contractors by the water utility before carrying out demolition, repair, reconstruction, or rehabilitation work on the project)
- Building or equipment surveys
- Hazard inspections
- General observation.

F. Immediate Action

Once a suspect ACM is identified,

- The contractor should stop all activities within five meters around the concerned places and evacuate all workers from those area.
- The contractor should ensure signage and barricades have been erected to indicate and delineate the asbestos area.
- The contractor should place warning signs of the presence of asbestos hazard in the area.
- If the site is in an inhabited area, place a security guard at the edge of the site with instructions to keep the people away.
- Notify PCU on the accident and arrange immediate site inspection and information collection.

G. Identification of the ACM hazard scope

The following information is required to fully identify the scope of the ACM hazard:

- The location and condition of the ACM
- The type of ACM, (e.g. asbestos cement sheet)
- Whether the ACM is friable or non-friable
- If there are any inaccessible areas that are likely to contain ACM
- If the nature or location of any work to be carried out is likely to disturb the ACM.

H. Assessment of ACM using Sampling Analysis

Once a suspect ACM is identified, it is required to be analyzed by a laboratory accredited for the test method, or other approved laboratory, to:

(1) Confirm the material contains asbestos.

(2) Determine the level of risk associated with the ACM in situ.

I. Exposure Standards

Exposure standards set out the airborne concentrations of asbestos, which should not damage the health of workers. The exposure standards for asbestos are:

- Amosite (brown asbestos) 0.1 f/mL (Fibres per millilitre of air)
- Crocidolite (blue asbestos) 0.1 f/mL
- Chrysotile (white asbestos) 0.1 f/mL

Any situations or areas which exceed the asbestos exposure standard are to be controlled to eliminate or minimize risk of exposure.

J. Control Measures

Control measures required for work involving exposure to ACMs will include the following:

(1) Risk assessment for the work to be undertaken.

(2) Implementation of appropriate risk controls which may include:

- Ensure barricades have been erected to indicate and delineate the asbestos work area.

- Use a wet method when removing asbestos where practicable.
  Safe work practices may include:
  - Wetting asbestos – wetting agents, such as detergent water to minimize the generation of airborne asbestos fibers.
  - The use of thickened substances, pastes, and gels to cover the surfaces of asbestos being wired on.
  - Shadow vacuuming.
  - Performing the task in a controlled environment.

- Ensure correct tools, equipment, and personal protective equipment (PPE) is used.
  Manually operated hand tools should be used wherever possible. Where this is not appropriate then low speed battery powered tools should be used in conjunction with suitable dust controls. PPE should be used in combination with other control measures.

- Ensure decontamination facilities are available.

- Contain and label asbestos waste and dispose of it as soon as reasonably practicable.
  Asbestos waste needs to be properly disposed of and tools and workers need to be decontaminated.

- Ensure that PPE and clothing used in asbestos removal work and contaminated with asbestos is handled.
  It is recommended that disposable coveralls are used as protective clothing unless it is not reasonably practicable to do so. When non-disposable protective clothing is used, the contaminated clothing must be laundered in a suitable laundering facility that is equipped to launder asbestos contaminated clothing. Contaminated protective clothing must not be laundered in homes. Any clothing worn under coveralls must be disposed of or suitably bagged for laundering as asbestos contaminated clothing.

K. Asbestos Removal

Any work that involves the removal of ACM must be carried out only by a skilled and trained asbestos removalists who will:

1. First, locate all visible ACM and spray each lightly but thoroughly with water.
2. Once the ACM is damp, pick up all visible ACM with shovels and place them in a clear plastic bag.
3. If any ACM debris is partially buried in the soil, remove it using a shovel and place it in the plastic bag.
4. Insert a label inside each plastic bag stating clearly that the contents contain asbestos, are dangerous to human health, and must not be handled.
5. Securely tie the plastic bags into labeled asbestos waste containers (clean metal drums) and seal each drum.
6. Soil with ACM debris must not be used for backfilling but must be shoveled by hand into asbestos waste containers.
7. At the end of the operation, clean all shovels and any other equipment with wet rags and place the rags into plastic disposal bags inside asbestos waste containers.
8. If soil containing ACM debris has been mistakenly used for backfilling, it should be sprayed lightly with water and then removed by hand to a depth of 300 mm. The soil must be placed directly into asbestos waste containers and not stored temporarily beside the trench. Any ACM uncovered during the hand shoveling must be put in a clear plastic bag with an asbestos warning label. Upon removing soil containing ACM from the trench, it could be refilled with imported clean topsoil free of any visible ACM.

9. The contractor employees will take all necessary precautions to ensure their safety and the safety of others during this process.

L. ACM Disposal

The ACM must be disposed of only at a hazardous-waste site or the city dumpsite with prior safe storage arrangements. The contractor is responsible for ensuring that the disposal site operator collects the sealed asbestos waste containers as soon as possible and stores them undisturbed at the disposal site. At the end of the construction, the contractors must make necessary arrangements for the disposal site operator to bury all ACM containers in a suitable pit of suitable size, covered with a layer of clay at least 250 mm deep.

M. Decontamination of Individuals who Handle ACM

All individuals who handle ACM must adhere to the following decontamination procedure:

1. Thoroughly clean the boots with damp rags after the decontamination process.
2. Peel off the disposable overalls and plastic gloves, ensuring they are inside-out, and place them in a plastic bag along with the rags used to clean the boots.
3. If a disposable respirator is used, put it in a plastic bag, seal it, and dispose of it in an asbestos waste container.
4. All personnel must wash thoroughly before exiting the site.
5. The washing area should be cleaned afterward with damp rags, which should then be placed in plastic bags, as mentioned above.

N. Clearance

Before an area can be re-occupied after asbestos removal, a clearance inspection must be performed. Clearance monitoring is a mandatory requirement for all friable asbestos removal works and is recommended for bonded ACM removal works particularly when the bonded ACM is located internally or near sensitive receptors such as air intakes. The complete removal of all ACM must be verified with a written clearance report, which must include details of a satisfactory clearance inspection conducted by the health and safety engineer. If clearance air monitoring has been conducted, the results of the air monitoring must be included as part of the clearance report. This report must be shared with the water utility, PMC, and PCU. PMC and PCU should participate in site clearance inspection.

O. Employee Training

The training objective is to establish proper awareness and understanding of work practices for each contractor's employee who does or may come into contact with ACM or those that are presumed to be ACM.

All contractor's personnel with risk of contact with ACM in performance of their work duties will be trained in the recognition of asbestos hazards, the health effects of exposure, PPE, and emergency procedures.

The training will include at least the following discussions:

- Types and uses of asbestos
- Hazards associated with asbestos
- Proper cleaning techniques
- Appropriate levels of personal protective equipment
- Proper engineering controls
- Regulatory requirements
- Appropriate handling practices for asbestos, and

P. PPE, Materials, and Equipment

All personnel who handle ACM must wear contractor-provided PPE. When working with asbestos, it is recommended to wear disposable overalls with a hood, boots without laces, new strong rubber gloves, and a respirator.

To safely remove asbestos from a construction site, contractors must make sure to have the following equipment on hand:

- Warning tape, sturdy fence posts, and warning notices to cordon off the area and prevent people from accidentally entering.
- Shovels to scoop up any contaminated materials.
- A water supply and hose fitted with a garden-type spray attachment keep the asbestos wet and prevent it from becoming airborne.
- Water and rags to clean up any spills or debris.
- Sacks of clear, strong polythene that can be tied too close to store any contaminated materials.
- Asbestos waste containers are empty, clean, sealable metal drums labeled as containing asbestos. They will be used to dispose of any asbestos waste safely and securely.

Appendix 6: Public Consultations

PCU Letter to the Local Authorities to Support Public Consultations

OSIYO INFRATUZILMA INVESTITSIYALAR BANKI LOYIHALARINI MUVOFIQLASHTIRISH GURUHI

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Date/Дата: 19/12/2023

Ургенч, Хонка, Янгиарик,
Гурлан, Шовот ва Янгибозор
туманлари Ҳокимликларига

"Хоразм сув таъминоти" МЧЖга

Осиё инфратузилма инвестициялари банки иштирокида амалга оширилиши режалаштирилган "Хоразм вилоятида сув таъминоти ва канализация тизимларини ривожлантириш ва модернизация килиш" лойиҳаси учун ижтимоий ва экологик тадқиқотлар ўтказиш мақсадида "Global Business Service Ltd." (GBS) компанияси билан шартнома имзоланган бўлиб бугунги кунда компания мутахассислари томонидан ижтимоий ва экологик таҳлил ва баҳолаш ишлари олиб бормоқда.

Юқорида кўрсатилган изланишлар юзасидан, 2023 йил 19-25 декабр кунлари GBS мутахассислари томонидан лойиҳа амалга ошириладиган туманларда ҳокимликлар иштирокида жамоатчилик муҳокамаларини ўтказиш режалаштирилди.

Шу муносабат билан Сиздан жамоатчилик муҳокамаларини ташкил этишда амалий ёрдам беришингизни сўраймиз.

Гурух рахбари в.б. [signature] **М.Мусадинов**

Ижр.: С.Мухамедалиева
+998330245054

Selected Photographs from Public Consultations

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Registration List of Consultation Participants

Проект "Развитие и модернизация системы питьевого водоснабжения и канализации Хорезмской области"
при финансировании Азиатским Банком Инфраструктурных Инвестиций

Населенный пункт (Махалла): Личнавр 20 **декабря 2023 г.**

Место проведения публичных консультаций: Музыкальная школа [illegible] района Гурлен

№	Ф.И.О. участника	Участники		Возраст	Образование	Семейное положение	Занимаемая должность	Место работы	Подпись
		Мужчины	Женщины						
1	Раджабова Гульзира		✓	45.	Среднее	Замужем	На складе	Муз. школа	[signature]
2	Бабажанова Гульнора		✓	47	среднее	Замужем	Костюмер.	муз. шк.	[signature]
3	Хайтбаева Гульнора		✓	50	среднее	Замужем	Учитель	муз. шк	[signature]
4	Юсупова Дилноза		✓	46	среднее	Замужем	учитель	муз. шк	[signature]
5	Матсабаева Диларом		✓	38.	среднее	Замужем	учитель	муз. шк	[signature]
6	Абдурахимов Нурбек	✓		51	среднее	женат.	Караул.	муз. шк	[signature]
7	Абдуллаев Н			55	среднее	[illegible]	Хўжалик [illegible]	-//-	[signature]
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Проект "Развитие и модернизация системы питьевого водоснабжения и канализации Хорезмской области" при финансировании Азиатским Банком Инфраструктурных Инвестиций

Населенный пункт (Махалла): Урганч МФЙ. 19 декабря 2023 г.

Место проведения публичных консультаций: Водоканал. Ишчорик МФЙ Ва Махалланинг комитет.

№	Ф.И.О. участника	Участники		Возраст	Образование	Семейное положение	Занимаемая должность	Место работы	Подпись
		Мужчины	Женщины						
1	Авез муратова Шукурэхон		✓	29.	Среднее.	Замуж.	Мутахасис юридич. иш	Водоканал.	[подпись]
2	Садуллаев Фахриддин	✓		36.	Высшее.	женат.	хелуги мириная	Рай газ.	[подпись]
3									
4	Хуитов Фаррух	✓		30.	Среднее	женат.	маст слесарь	кистеръ.	[подпись]
5	Атамашов Масуд	✓		44.	Высшее	женат.	Райздрав Экономист	райздрав	[подпись]
6									
7	Давлетов Давлетназар	✓		41	Среднее	женат.	строитель	самозанятый	[подпись]
8	Караев Олим.	✓		53.	Среднее.	женат.	таксист	самозанятый	[подпись]
9									
10	Курбанова Саиукат.		✓	38.	Среднее.	Замужем.	оператор	Узтелеком	[подпись]
11									
12	Иадиманова Фотима.		✓	47.	Среднее	Замужем	кассир	Рай газ	[подпись]
13	Салаева Салима	✓		44.	Среднее	Замужем	продавщица	магазин.	[подпись]
14									

Проект "Развитие и модернизация системы питьевого водоснабжения и канализации Хорезмской области" при финансировании Азиатским Банком Инфраструктурных Инвестиций

Населенный пункт (Махалла): Ватанпарвар. 19. декабря 2023 г.

Место проведения публичных консультаций: Детский сад. № 35. Ханка.

№	Ф.И.О. участника	Участники		Возраст	Образование	Семейное положение	Занимаемая должность	Место работы	Подпись
		Мужчины	Женщины						
1	Камилова Малохат.		✓	30	Высшее.	Замуж.	Воспитатель	Дет. сад.	[подпись]
2	Мадрейимова Ирода		✓	40.	Среднее.	замужем	Воспитатель	Дет сад	[подпись]
3	Ибрагимова Хуршида		✓	21.	Высшее.	замужем	Методист.	Дет сад	[подпись]
4	Искандерова Машхура		✓	25.	Высшее	замужем	Воспитатель	Дет сад	[подпись]
5	Илламова Рисолат.		✓	25.	Среднее.	замужем	Воспит-ль.	Дет сад	[подпись]
6	Раззакова Надира		✓	38.	Среднее.	замуж	Воспит.	Дет сад	[подпись]
7	Юсупова Садокат		✓	24.	Среднее	Незамуж-я	Воспит	Дет сад	[подпись]
8	Джуманиязова Умакамджон.		✓	53	Среднее	замуж.	Воспит	Дет сад	[подпись]
9	Курамбаева Дильноза		✓	31	Среднее.	замужем	Воспит	Дет сад	[подпись]
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Проект "Развитие и модернизация системы питьевого водоснабжения и канализации Хорезмской области" при финансировании Азиатским Банком Инфраструктурных Инвестиций

Населенный пункт (Махалла): Олтинкуль 19 декабря 2023 г.

Место проведения публичных консультаций: Дет сад Ургенчского района № 4

№	Ф.И.О. участника	Участники		Возраст	Образование	Семейное положение	Занимаемая должность	Место работы	Подпись
		Мужчины	Женщины						
1	Якупова Мукаддас		✓	44	Среднее	Замужем	Воспитатель	Дет сад	[illegible]
2	Сабирова Рано		✓	49.	Среднее	Замужем	Няня	Дет сад	[illegible]
3	Ожумамназова Нилюфар		✓	41.	Среднее	Замужем	Няня	Дет. сад	[illegible]
4	Атамуратова Нилюфар		✓	43.	Среднее	Замужня.	Воспитатель	Дет. сад	[illegible]
5	Худайберганова Шахиджан		✓	31.	Среднее	Замужем	Няня	Дет. сад	[illegible]
6	Махмудова Дилараба		✓	36.	Высшее	Замужем	Воспит.	Дет. сад.	[illegible]
7	Маткаримова Изора		✓	35.	Среднее	Замуж.	Воспит	Дет сад	[illegible]
8	Маткаримова Фарохат		✓	40	Среднее	Замуж.	Воспит	Дет сад	[illegible]
9	Давлатова Меҳрибон		✓	52	Высшее.	Замужем	Методист.	Дет сад.	[illegible]
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Проект "Развитие и модернизация системы питьевого водоснабжения и канализации Хорезмской области" при финансировании Азиатским Банком Инфраструктурных Инвестиций

Населенный пункт (Махалла): Лигищши. 19. декабря 2023 г.

Место проведения публичных консультаций: Поликлиника Ханкийского района КЕТИП

№	Ф.И.О. участника	Участники		Возраст	Образование	Семейное положение	Занимаемая должность	Место работы	Подпись
		Мужчины	Женщины						
1	Мадиерова Фарузабону		✓	25.	Среднее.	Замуж.	Медсестра	Общее врач.	
2	Курамбоева Мархабо		✓	26	Среднее.	Замужем	Мед. сестра	↓	
3	Бабажанова Шихора		✓	56	Среднее	замужем	Кардиолог медсестра	Кардиология.	
4	Абдуллаева Рисолат		✓	39	Среднее	замужем	Медсестра	Травмотология	
5	Корнеева Фарорат		✓	40	Среднее	замужем	Медсестра	Физ. отделение	
6	Хайитбоева Нигора		✓	43	Среднее	замужем	хамшира	Пульмонология.	
7	Каракова Фариза		✓	44	Среднее	замужем	хамшира		
8	Искандарова Гулшода		✓	37	Среднее	замужем	хамшира	ТУБ отд.	
9	Худайбергенова Ойжамал		✓	54	Среднее	замужем	катта хамшира	ТУБ отд. КБ ТТЦ	
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Проект "Развитие и модернизация системы питьевого водоснабжения и канализации Хорезмской области"
при финансировании Азиатским Банком Инфраструктурных Инвестиций

Населенный пункт (Махалла): Ёлмлик **19 декабря 2023 г.**

Место проведения публичных консультаций: Районная больница Ургенчского района

№	Ф.И.О. участника	Участники		Возраст	Образование	Семейное положение	Занимаемая должность	Место работы	Подпись
		Мужчины	Женщины						
1	Ахмедова Шахноза		✓	30	Средне	Замужем	Мед сестра	Общая хирургия	
2	Юсупова Гульшода		✓	30	Средне	Замужем	Мед сестра	КЭДБ.	
3	Атамуратова Хилола		✓	49	Средне	Замужем	Медсестра	КЭДБ	
4	Камалова Гульбахар		✓	55	Средне	Замужем	Санитарка	Терапия	
5	Абдуллаева Надира		✓	38	Средне	Замужем	Санитарка	Неврология	
6	Рахманова Гульчехра		✓	54	Средне	Замужем	Санитарка	Лаборатория	
7	Юлдашева Зулейха		✓	53	Средне	Замужем	Санитарка	Лаборатория	
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Проект "Развитие и модернизация системы питьевого водоснабжения и канализации Хорезмской области" при финансировании Азиатским Банком Инфраструктурных Инвестиций

Населенный пункт (Махалла): Совуччи. Школа № 21 Гурленский район.

20 **декабря 2023 г.**

Место проведения публичных консультаций:

№	Ф.И.О. участника	Участники: Мужчины	Участники: Женщины	Возраст	Образование	Семейное положение	Занимаемая должность	Место работы	Подпись
1	Сочаева Севара		✓	30.	Высшее.	Замужем.	Учитель	Школа	[signature]
2	Камалова Нарофат		✓	30.	Высшее.	замужем	Учитель	Школа	[signature]
3	Козибаева Умида		✓	27.	Высшее	замужем	Учитель	школа	[signature]
4	Машарипова Гнахноза		✓	33	Средне	замужем	Техн	школа	[signature]
5	Авезмуратов Рашид	✓	✗	33	Высшее	женат.	Учитель	школа	[signature]
6	Атамуратова Дильфуза	✓		44.	Высшее	Замужем	Учитель	школа	[signature]
7	Усабаев Усар.		✓	40	Высшее	женат.	Учитель	школа	[signature]
8	Бабонова Shaknoza		✓	38	Высше	женат	психолог	школа	[signature]
9	Madrakimov Alisher	✓		33	Oliy	женат	Ōqituvchi	школа	[signature]
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Проект "Развитие и модернизация системы питьевого водоснабжения и канализации Хорезмской области" при финансировании Азиатским Банком Инфраструктурных Инвестиций

Населенный пункт (Махалла): Дустлик. ул. Мехр Нури

20 декабря 2023 г.

Место проведения публичных консультаций: Школа № 33 Ишбазар

№	Ф.И.О. участника	Участники		Возраст	Образование	Семейное положение	Занимаемая должность	Место работы	Подпись
		Мужчины	Женщины						
1	Каримова Мархабо		✓	55.	Высшее	Замужем	Учитель	школа 33	[signature]
2	Раимова Корчима		✓	51.	Среднее.	замужем	Библиотекарь	школа	[signature]
3	Рахимбаев Шокир	✓		35.	Высшее.	Женат.	Учитель	школа	[signature]
4	Шерипов Музаффар	✓		30.	Высшее.	женат	учитель	школа	[signature]
5	Худойбергенов Насир	✓		33	высшее	женат	учитель	школа	[signature]
6	Машарипов Зохир	✓		33	высшее	женат	Охранник.	школа	[signature]
7	Муратбаев Феруз	✓		30.	Высшее.	женат	Оператор	школа	[signature]
8	Сапарбаева Гульноз		✓	24.	Высшее	замужем	Учитель.	школа	[signature]
9	Мадаминова Диляра		✓	26.	Высшее	незамужем.	учитель	школа	[signature]
10	Матюсупов Илмошидин	✓		33	высшее	Женат	Зам. Директор	школа	[signature]
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Проект "Развитие и модернизация системы питьевого водоснабжения и канализации Хорезмской области" при финансировании Азиатским Банком Инфраструктурных Инвестиций

Населенный пункт (Махалла): Наубахар, Ангибазар ЦР Больница. ЦРБ.

20 **декабря 2023 г.**

Место проведения публичных консультаций: Центральная Районная Больница. (ЦРБ

№	Ф.И.О. участника	Участники		Возраст	Образование	Семейное положение	Занимаемая должность	Место работы	Подпись
		Мужчины	Женщины						
1	Ибрагимов Музаффар	✓		48.	Высшее	Женат.	Зам. Главврача	Ангибазар ЦРБ	[подпись]
2	Гулымбаев Рауман	✓		43	высшее	Женат	Врач.	Больница	[подпись]
3	Курамбаева Ширин		✓	30	высшее	Замужем	Бухгалтер.	Больница	[подпись]
4	Исаев Жасур	✓		38	высшее	Женат.	Зам. Главврача	Больница	[подпись]
5	Матkarимова Хуршида		✓	38.	Среднее.	Замужем	Медсестра	Больница	[подпись]
6	Саидова Дильраба		✓	32.	Высшее.	Замужем	мед сестра	Больница	[подпись]
7	Раджапова Йорар		✓	31.	Среднее.	Замужем.	мед. сестра	Больница	[подпись]
8	Кошметова Севара		✓	37.	Среднее	Замужем	мед сестра	Больница	[подпись]
9	Ивазов Рахим	✓		70	Высшее.	Женат	Зам. Главврача	Больница	[подпись]
10	Курбанова Сохиба		✓	35.	Высшее	Замужем	Бухгалтер	Больница	[подпись]
11	Мазаманова Мамура		✓	37	Среднее.	Замужем.	Кассир	Больница	[подпись]
12	Джуманиязова Шарофат.		✓	54.	Среднее	Незамужем	Бухгалтер	Больница	[подпись]
13	Ахмедова Райхан		✓	32.	Высшее	Замужем	Бухгалтер	Больница	[подпись]
14	Талипов Бекташ	✓		38.	Высшее	Женат.	Бухгалтер	Больница.	—

Проект "Развитие и модернизация системы питьевого водоснабжения и канализации Хорезмской области"
при финансировании Азиатским Банком Инфраструктурных Инвестиций

21 декабря 2023 г.

Населенный пункт (Махалла): Рост. махалле

Место проведения публичных консультаций: Махаллинский комитет Хават.

№	Ф.И.О. участника	Участники		Возраст	Образование	Семейное положение	Занимаемая должность	Место работы	Подпись
		Мужчины	Женщины						
1	Мухаммедиманова Кундуз хоз.		✓	34.	Высшее	Замужем	Рай-газ. денопрвоз-ть	Рай газ.	[signature]
2	Байманова Хакикат		✓	46.	Среднее	↓	Няня	Дет сад.	[signature]
3	Норипов Акджон.	✓		43	Высшее.	женат -	инженер	метронше.	[signature]
4	Ниязметова, Куанчой		✓	38.	Среднее	Замужем	Учит.	Дет. сад.	[signature]
5	Джуманиязова Фарогат.		✓	49.	Среднее.	↓	Дом. хозяйке	-//-	[signature]
6	Машарипова Дилиоза		✓	51.	Среднее	↓	швачиф.	-//-	[signature]
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Проект "Развитие и модернизация системы питьевого водоснабжения и канализации Хорезмской области"
при финансировании Азиатским Банком Инфраструктурных Инвестиций

21 декабря 2023 г.

Населенный пункт (Махалла): Туркистон

Место проведения публичных консультаций: Дет. Сад № 1 Ма ват.

№	Ф.И.О. участника	Участники		Возраст	Образование	Семейное положение	Занимаемая должность	Место работы	Подпись
		Мужчины	Женщины						
1	Хорилова Марьем		✓	56	Высшее	Замужем	Директор	Дет. Сад	[signature]
2	Ибадуллаева Гульрух		✓	28	↓	Замужем	Воспитатель	↓ Дет сад	[signature]
3	Фаргманазарова Нигора		✓	48	Среднее	↓	мед сестра	↓ Дет сад	[signature]
4	Достанова Камила		✓	21	Высшее	не замужем	Воспитатель	↓ Дет сад	[signature]
5	Ахмедова Мехрибон		✓	48	Среднее	замуж.	Воспит	↓ Дет сад	[signature]
6	Бойназарова Нилуфар		✓	33	Высшее	замужем	Воспит	↓ Дет сад	[signature]
7	Розимова Махлие		✓	32	Среднее	замужем	Мед сестра	↓ Дет сад	[signature]
8	Елманова Ирода		✓	53	Высшее	замужем	Воспитатель	↓ Дет сад	[signature]
9	Хобарова Нафиса		✓	33	Среднее	замужем	Воспитатель	↓ Дет сад	[signature]
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Проект "Развитие и модернизация системы питьевого водоснабжения и канализации Хорезмской области" при финансировании Азиатским Банком Инфраструктурных Инвестиций

21 декабря 2023 г.

Населенный пункт (Махалла): Пахлаван Махмуд

Место проведения публичных консультаций: МФЙ офис №268. Хазарасп.

№	Ф.И.О. участника	Участники		Возраст	Образование	Семейное положение	Занимаемая должность	Место работы	Подпись
		Мужчины	Женщины						
1	Матназарова Наргиза		✓	38	Высшее	Замужем	Хотин қизлар фаоли	МФЙ-	[signature]
2	Жаназарова Наргиза		✓	67.	Высшее	замужем	Жамоатчи иши	МФЙ	[signature]
3	Сапаев Иқезмат	✓		46.	Среднее	женат	предприн-ль	[illegible]	[signature]
4	Курбанов Гулам шан	✓		52.	Высшее	женат	раис Махалли	МФЙ	[signature]
5	Матякубова Феруза		✓	49.	Среднее	замужем	Домохозяйка	— МФЙ	[signature]
6	Файзуллаева Нуссар		✓	53	Среднее	замужем	Домохозяйка	— МФЙ	[signature]
7	Иноярова Гулсевар		✓	25	Среднее	замужем	Деятель-ль	хлопковый цех	[signature]
8	Маткаримова Бахтигуль		✓	33	Среднее	замужем	Мед. сестра	поликлиника	[signature]
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14									

Проект "Развитие и модернизация системы питьевого водоснабжения и канализации Хорезмской области" при финансировании Азиатским Банком Инфраструктурных Инвестиций

21 декабря 2023 г.

Населенный пункт (Махалла): Зиёлилар. Школа № 23

Место проведения публичных консультаций: Хазарасп

№	Ф.И.О. участника	Участники		Возраст	Образование	Семейное положение	Занимаемая должность	Место работы	Подпись
		Мужчины	Женщины						
1	Сабирова Рахима		✓	50	Высшее.	Замужем	Учитель	школа.	
2	Гафурова Хамрохун		✓	50.	Среднее	замуж.	Учитель	школа	
3	Розимова Гулора		✓	54	Высшее	замуж.	учитель	школа	
4	Куршазова Марьям		✓	59	Среднее	замуж	работник	школа	
5	Машарипова Инадшон		✓	53	среднее	замуж	работник	школа	
6	Юсупова Марьпат		✓	60	среднее	замуж	работник	школа	
7	Аллабергенова Гулнора		✓	54	Олий	замуж	Зам директор	школа	
8	Илламов Равшан	✓		53.	Высшее	Женат.	Учитель	школа	
9	Ибодбаева Сарбиноз		✓	25.	Высшее	Замужем	учитель	школа	
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Selected Photographs from Household Survey

Household Survey was implemented in Khorezm Province during 16-23 May 2023.

Figure 33: Olitinkum Community, Bagat District

Figure 34: Uzumzor Community, Bagat District

Figure 35: Eshimjiron Community, Gurlen District

Figure 36: Marifat Community, Gurlen District

Figure 37: Khayrabod Community, Kushkupir District

Figure 38: Yovgir Community, Kushkupir District

Figure 39: Oydin Community, Shavat District

Figure 40: Taraqqiyot Community, Shavat District

Figure 41: Bobodekhkon Community, Urgench District

Figure 42: Qumravot Community, Urgench District

Figure 43: Munis Khorazmyi Community, Khazarasp District

Figure 44: Oybek Community, Khazarasp District

Figure 45: Fidoilar Community, Khanka District

Figure 46: Nurobod Community, Khanka District

Figure 47: Sardorlar Community, Yangiarik District

Figure 48: Gulbog Community, Yangiarik District

Figure 49: Boston Community, Yangibazar District

Figure 50: Katli Community, Yangibazar District

Brochure

A brochure about the project was shared with the local population during public consultations.

Figure 51: Brochure about the project activities, Uzbek version

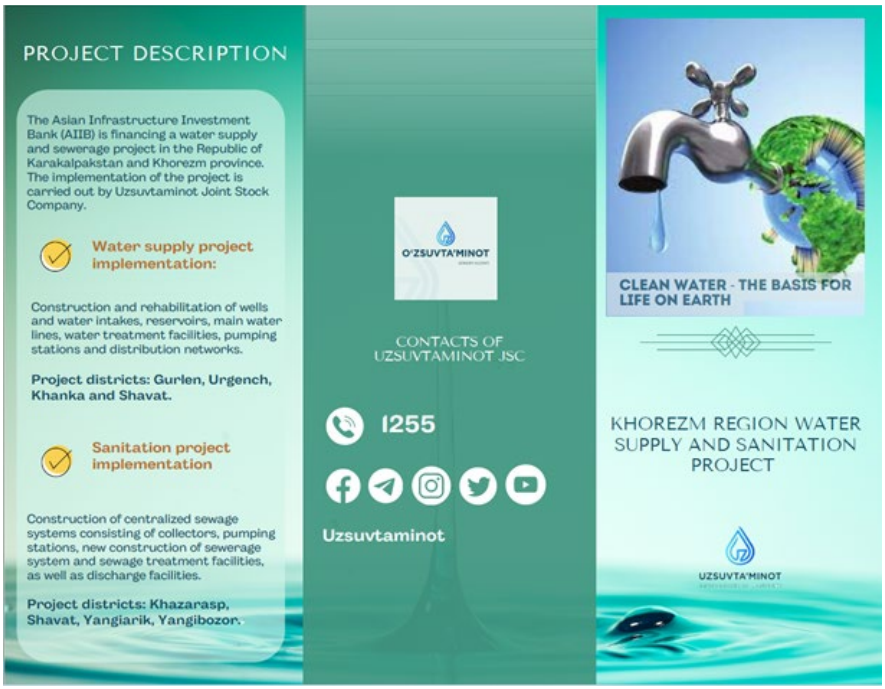

Figure 52: Brochure about the project activities, English version

Appendix 7: Terms of References for Environmental, Social, and Gender Specialist

Terms of Reference for Environmental Specialist

1. Overview: The specialist will ensure environmental considerations are integrated into project planning and execution in accordance with AIIB's Environmental and Social Framework and Uzbekistan's environmental regulations.

2. Objective: The main objective of this position is to provide expert guidance and oversight on environmental issues related to the project, ensuring compliance with all applicable environmental standards, and promoting sustainable development practices.

3. Key Responsibilities:

- Subprojects screening and categorization.
- Supervise environmental and social impact assessments for the subprojects.
- Develop and implement environmental and social management plans.
- Monitor environmental mitigation measures throughout the project lifecycle.
- Provide regular reports on environmental and social compliance and management activities.
- Liaise with local and national environmental and public health authorities and other stakeholders.
- Deliver training and capacity building on environmental and social management to the project team.
- Ensure the project adheres to AIIB's environmental and social policy and the national environmental laws of Uzbekistan.
- Monitor and ensure compliance of the project implementation with relevant environmental and social safeguards.

4. Tasks:

- Review and assess project documents and activities for environmental risks.
- Design and oversee the implementation of biodiversity conservation measures if applicable.
- Handle the public disclosure of environmental information related to the project.
- Advise on waste management, pollution control, and resource efficiency.
- Participate in project meetings and provide input on environmental aspects.
- Respond to environmental emergencies or incidents associated with the project.

5. Qualifications:

- Master's degree in environmental science, environmental engineering, or a related field.
- Minimum of five years of experience in environmental assessment and management in large-scale projects, preferably in Central Asia.
- Thorough understanding of international and Uzbek environmental laws and standards.
- Experience working with international financial institutions like AIIB, World Bank, ADB, or similar is highly desirable.
- Proficiency in English and Russian or Uzbek.

6. Reporting: The Environmental Specialist will report to the Project Manager and will also provide regular updates to AIIB's environmental compliance officers.

Terms of Reference for Social Specialist

1. Overview: The specialist will manage and ensure that all resettlement activities are executed in accordance with AIIB's Environmental and Social Framework, and in compliance with Uzbekistan's laws and regulations concerning land acquisition and involuntary resettlement.

2. Objective: The primary objective of the Resettlement Specialist is to oversee and facilitate the implementation of the Resettlement Plans (RPs), ensuring that the livelihoods and living standards of affected persons are maintained or improved.

3. Key Responsibilities:

- Develop, implement, and monitor Resettlement Action Plans (RAPs).
- Conduct socio-economic surveys and census activities to identify affected persons and assess impacts.
- Ensure transparent and inclusive consultation processes with all stakeholders, including affected communities and local authorities.
- Establish grievance redress mechanisms and ensure they are accessible to affected persons.
- Coordinate with local governments to ensure compliance with national laws on land acquisition and resettlement.
- Provide regular training to project staff on resettlement policies and procedures.
- Prepare periodic reports on resettlement progress and issues for submission to the project management and AIIB
- Engage and facilitate meaningful consultation with project stakeholders, including local communities, government authorities, and non-government organizations.
- Provide guidance and support to the project team on resettlement and social safeguard issues.

4. Tasks:

- Map out and execute detailed resettlement strategies under each subproject.
- Negotiate compensation and assistance measures for affected persons.
- Monitor the disbursement of compensation and assistance.
- Monitor the socio-economic reintegration of resettled individuals or communities.
- Manage data relating to resettlement activities, including maintaining comprehensive documentation and records.
- Ensure that resettlement sites are developed in line with required standards before relocation.
- Design and conduct stakeholder engagement and public consultation strategy.
- Develop and implement resettlement action plans if displacement or resettlement is necessary.
- Handle grievances related to social and resettlement impacts in a timely and effective manner.
- Coordinate with other specialists (environmental, technical, etc.) to ensure integrated project delivery.
- Provide regular training and capacity building on social safeguards to the project team.
- Prepare social monitoring and evaluation reports for internal and external stakeholders.

5. Qualifications:

- Master's degree in social sciences, urban planning, law, or related field.
- Minimum of five years of experience in planning and managing resettlement activities, particularly in infrastructure projects.
- In-depth knowledge of international standards and best practices in resettlement, including experience with financial institutions such as AIIB, ADB, or World Bank.
- Strong knowledge of the applicable legislation of Uzbekistan.
- Deep understanding of the social dynamics and cultural norms in Uzbekistan, with experience in Central Asia being an advantage.
- Previous experience working with international development banks (e.g., AIIB, World Bank) or similar institutions is highly desirable.
- Strong communication skills in English and Russian or Uzbek.
- Excellent interpersonal and negotiation skills, with the ability to work sensitively in multicultural environments and build effective working relations with clients and colleagues.

6. Reporting: The Social Specialist will report directly to the Project Manager and maintain close coordination with AIIB's social compliance officers.

Terms of Reference for Gender Specialist

1. Overview: This specialist will ensure that gender considerations are effectively integrated throughout the project lifecycle, in line with AIIB's Environmental and Social Framework and Uzbekistan's national policies on gender equality.

2. Objective: The main objective of this role is to promote gender equity and women's empowerment within the project activities, ensuring that both men and women benefit equally from the project's outcomes and that gender-specific impacts are addressed appropriately.

3. Key Responsibilities:

- Develop and implement a Gender Action Plan (GAP) tailored to the project's needs.
- Conduct gender analysis and assessments to identify gender-specific impacts and opportunities within the project.
- Ensure gender-sensitive approaches are integrated into all project phases from design to evaluation.
- Monitor and report on the implementation of the GAP and the achievement of gender-related targets.
- Facilitate capacity building and awareness programs on gender issues for project staff and stakeholders.
- Collaborate with local NGOs, women's groups, and other community organizations to enhance project outreach and impact on gender issues.
- Monitor and ensure compliance of the project implementation with relevant safeguards.

4. Tasks:

- Design tools and methodologies for collecting gender-disaggregated data.
- Provide technical assistance to ensure that project activities consider the needs of women and men equally.
- Organize and facilitate gender-sensitive training sessions for project teams and local partners.
- Prepare periodic progress reports on gender integration and outcomes.
- Advise project management on best practices for promoting gender equality in the context of development projects.

5. Qualifications:

- Master's degree in gender studies, social sciences, economics, law or a related field.

- At least five years of professional experience in gender mainstreaming and gender analysis in development projects.
- Familiarity with international gender policies and standards, particularly those related to development banks such as AIIB, ADB, or World Bank.
- Proven track record of implementing gender-focused programs or projects.
- Strong analytical, interpersonal, and communication skills.
- Proficiency in English and Russian or Uzbek.

6. Reporting: The Gender Specialist will report directly to the Project Manager and coordinate regularly with AIIB's social development team.

Appendix 8: Resettlement Planning Framework

(enclosed separately)