PROJECT
REGIONAL ECONOMIC DEVELOPMENT

ASSIGNMENT
DEVELOPMENT FEASIBILITY STUDY AND DED OF THE INFRASTRUCTURE FOR SULAIMAN-TOO COMPLEX AND UZGEN HISTORICAL AND ARCHITECTURAL COMPLEX

CREDIT NO. 6558 KG, GRANT NO. D5700

Environmental and Social Impact Assessment (ESIA)

CLIENT:
COMMUNITY DEVELOPMENT
AND INVESTMENT AGENCY
OF KYRGYZ REPUBLIC (ARIS)

FUNDED BY
WORLD BANK PROJECT

THE WORLD BANK

CONSULTANTS

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Engineering - Architecture - Planning - Mapping - Technology

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I. EXECUTIVE SUMMARY

The project for the reconstruction and modernization of the Sulaiman-Too Complex (STC) and the Uzgen Historical and Architectural Complex (UHAC) is part of the Regional Economic Development Project (RED-1) in Kyrgyzstan, implemented by the Community Development and Investment Agency (ARIS) and financed by the World Bank.

The project aims to strengthen the tourism potential of Osh and Uzgen cities by improving infrastructure, conserving cultural heritage, and enhancing visitor services. The works are fully aligned with the third component of RED-1, which focuses on tourism and urban modernization in southern Kyrgyzstan.

Both sites have exceptional national and international cultural importance. Sulaiman-Too is a UNESCO World Heritage Site, representing a sacred and historical symbol for the Kyrgyz people. The Uzgen Complex, a monumental ensemble from the Karakhanid era, includes mausoleums, a minaret, and museum facilities of significant cultural value. The project seeks to rehabilitate these sites, improve accessibility, and develop sustainable tourism infrastructure while ensuring preservation of authenticity and cultural integrity.

An Environmental and Social Impact Assessment (ESIA) has been conducted in accordance with the laws of the Kyrgyz Republic and the World Bank Environmental and Social Framework (ESF, 2018), particularly ESS1, ESS2, ESS3, ESS4, ESS5, ESS8 and ESS10. The purpose of the ESIA is to identify and evaluate environmental and social risks and impacts, assess feasible alternatives, and develop appropriate mitigation, management, and monitoring measures to ensure that project activities are environmentally sound, socially acceptable, and compliant with national and international standards.

Key Environmental and Social Risks and Impacts

The project does not require new land allocation or physical resettlement, as all works will take place within the boundaries of state-owned and protected areas. However, several potential environmental and social risks were identified during the assessment.

These include:

- Possible loss of authenticity or historical inaccuracies during restoration;
- Theft, damage, or destruction of artifacts and movable cultural objects;
- Occupational health and safety (OHS) risks during construction, especially when working at heights, in confined or underground spaces;
- Community health and safety risks, including temporary restrictions to site access, noise, and dust emissions;
- Soil pollution by fuels and lubricants (F&L);
- Generation of construction waste, vibration, and temporary visual disturbance.

Most identified impacts are localized and short-term in nature. The overall environmental and social risk classification is Substantial, due to the cultural sensitivity of the sites and their UNESCO and national heritage status.

All identified risks will be managed under a comprehensive Environmental and Social Management Plan (ESMP), which also serves as an Integrated Cultural Heritage Management Plan.

The ESMP follows the mitigation hierarchy — avoidance, minimization, restoration, and compensation — and consolidates environmental protection, OHS, and heritage preservation measures.

Key mitigation measures include:

- Timely communication of interested/affected parties and involvement of all stakeholders during the design preparation period, development of measures to mitigate environmental and social risks, and implementation of the subproject;

- Installing protective fencing and limiting access to construction zones to prevent accidental damage;
- Protecting existing artifacts and movable cultural objects through pre-construction inventory and condition recording, secure relocation or in-situ protection, controlled access and physical security measures, relevant prohibitions in the workers' Code of Conduct, and mandatory cultural heritage protection training.
- Using compatible, energy-efficient, and climate-appropriate materials, consistent with heritage conservation principles;
- Applying traditional restoration techniques where feasible to maintain authenticity;
- Implementing a detailed Chance Find Procedure for accidental discovery of cultural artifacts;
- Conducting regular site inspections and involving archaeologists, historians, and local museum representatives in supervision;
- Ensuring strict compliance with occupational safety regulations, provision of PPE, and worker training on environmental and cultural heritage protection.

All mitigation and monitoring responsibilities are detailed in Tables 6-7 of the ESIA.

Stakeholder Consultations

A series of consultations and expert meetings were held in Osh and Uzgen in 2023–2024, involving representatives of the Ministry of Culture, local administrations, ARIS, museum management, architects, and community members.

Participants emphasized the importance of maintaining authenticity, improving access for visitors, and providing adequate infrastructure, such as resting areas, lighting, and signage.

Stakeholders also requested inclusive public spaces that combine preservation with community benefit. Feedback received during these consultations has been incorporated into the project design and the ESMP.

Summary results of the consultations conducted (including dates, participants/organizations, key comments, and photo documentation) are presented in Annex 1.

In addition, it should be noted that at a subsequent stage of project preparation, the Consultant developed a Stakeholder Engagement Plan (SEP) in accordance with the requirements of the World Bank Environmental and Social Standards (ESS10). At the current stage, the implementation of the SEP is carried out through working consultations and coordination meetings with key project stakeholders, including ARIS, the design team, management of the cultural heritage sites, and representatives of the World Bank.

Following the completion and agreement of the main project design solutions, additional consultations and information disclosure activities are planned for a broader range of stakeholders, including local communities and other interested groups, in accordance with the SEP.

Institutional Arrangements for Implementation

The Ministry of Economy acts as the lead coordinating body at the national level, providing policy oversight and coordination with the Government of the Kyrgyz Republic.

The Community Development and Investment Agency (ARIS) is the implementing agency responsible for environmental and social risk management, supervision, and reporting.

ARIS E&S specialists will monitor ESMP implementation and provide capacity-building to local authorities and contractors.

Contractors will be required to develop and apply Contractor Environmental and Social Management Plans (C-ESMPs) consistent with this ESIA and the World Bank Environmental and Social Standards.

The Engineer (Engineer) will ensure daily oversight of environmental, social, and OHS compliance.

The Ministry of Culture and museum authorities will provide heritage-specific supervision to guarantee the authenticity of restoration works.

Independent experts may be engaged for third-party monitoring, particularly given the sites' cultural significance.

Estimated Cost of ESMP Implementation

The estimated cost of ESMP implementation includes:

- Training and awareness activities
- External monitoring and emergency assessment reserve
- Routine mitigation and monitoring costs: will be included in the contractors' Bills of Quantities (BoQs) and reflected in the ESMP.

These resources are integrated into the overall project budget to ensure the full and effective implementation of mitigation, monitoring, and capacity-building measures.

The ESIA concludes that the proposed rehabilitation works at the Sulaiman-Too and Uzgen heritage sites are environmentally and socially feasible.

All identified impacts are temporary, site-specific, and manageable through the proposed ESMP measures. With consistent application of mitigation actions, active stakeholder engagement, and institutional oversight, the project will contribute to the long-term preservation of Kyrgyzstan's cultural heritage, enhance tourism infrastructure, and support sustainable regional economic growth.

II. INTRODUCTION

The Project for Reconstruction and Modernization of the Existing Infrastructure of the Historical and Cultural Heritage Sites: Sulaiman-Too Complex and the Uzgen Historical and Architectural Complex is a sub-component of the Regional Economic Development Project in Osh region and the city of Osh (hereinafter Project). It aims to develop tourism and create favorable conditions for both local and foreign visitors to these sites.

The Regional Economic Development Project is being implemented in Osh region by the Community Development and Investment Agency (ARIS), and it comprises four main components:

- Improving regional economic planning and regulatory functions.
- Strengthening agri-food supply chains, as well as small and medium-sized enterprises (SMEs).
- Facilitating investments in tourism and urban development.
- Supporting tourism and SME development in rural areas through small grants.

This document specifically pertains to the task within sub-component 3.1. "Modernization of urban centers in Osh and Uzgen, as well as tourist routes in Osh region." This sub-component aims to enhance tourist attractions, services, and infrastructure of the Sulaiman-Too Complex (STC) and the Uzgen Historical and Architectural Complex (UHAC), which are the project's main points.

The Environmental and Social Impact Assessment (ESIA) presented in this document covers the ecological and social consequences of modernizing the infrastructure and activities on the Sacred Mountain of the Sulaiman-Too Complex in compliance with the existing legislation of Kyrgyzstan, UNESCO recommendations for heritage site preservation, and the policies and recommendations of the World Bank.

Definition and Purpose of the Environmental and Social Impact Assessment (ESIA) of the Project

An Environmental and Social Impact Assessment (ESIA) is a tool for identifying and evaluating the potential environmental and social impacts of a proposed project, assessing alternatives, and developing appropriate measures for mitigation, management and monitoring. The Environmental and Social Impact Assessment describes the analysis and planning process used to ensure that the environmental and social impacts and risks of a project are identified, prevented, minimised, reduced or mitigated. The Environmental and Social Impact Assessment is the primary means of ensuring the environmental and social soundness and sustainability of projects and will be used to inform decision-making.

As part of this process, potential risks are identified at an early stage and addressed through the application of a hierarchy of mitigation measures: prevention, minimisation, reduction, restoration and compensation.

The ESIA serves as a key tool for decision-making, providing a basis for:

- integrating environmental and social considerations into the design and implementation of the Project;
- keeping stakeholders and regulatory authorities informed;
- ensuring compliance with the national legislation of the Kyrgyz Republic and the World Bank's Environmental and Social Standards (ESS).

2.1. Target Objectives

Under Subcomponent 3.1 of the Regional Economic Development Project (RED-1), a total of thirteen significant sites have been identified for focused attention and intervention. These sites are strategically distributed in the cities of Osh and Uzgen within the Osh Region, forming a critical part of the broader initiative, "Upgrading Osh and Uzgen Urban Cores and Tourism Circuits in Osh Oblast."

Following further review and approval of design solutions, the list of objects was clarified and reduced to nine objects: eight objects are located on the territory of the National Historical and Archaeological Museum Complex "Sulaiman-Too" (Osh), and one object is on the territory of the Uzgen Historical and Architectural Complex (Uzgen).

Project Cities

- Osh-City

The City of Osh, known as the "capital of the south," stands as the second-largest city in Kyrgyzstan and holds the distinction of being the oldest city in the country, with an estimated history of more than 3,000 years. Serving as the administrative center of Osh Region since 1939, the city of Osh encompasses a total area of 182.5 km² (70.5 sq mi) with an elevation of 963 m (3,159 ft).

As of the beginning of 2024, the city's permanent population was 473,500, which corresponds to a population density of approximately 2,594 people/km².

- Uzgen

Uzgen is situated approximately 45 minutes' drive from Osh City, and is a town with historical significance. It served as one of the capitals of the Karakhinds, a Karluk Turkic khanate that governed Central Asia from the 9th through the early 13th century. Positioned at an elevation of 1,029 m (3,375 ft), Uzgen has a population of 66,000 as of 2024.

The Target Objects under this Project, and their locations are providing in the below matrix:

Table 1. List of Target Objects

No.	Target Object Name	City
1	Fire gates	Osh
2	Mountain gates	Osh
3	Water gates	Osh
4	Mountain trail + Babur's Mosque	Osh
5	Cave museum	Osh
6	Frontal Square Mausoleum of Asaf Ibn Burkiya	Osh
7	Bronze age settlement	Osh
8	Ethnographic Museum	Osh
9	Uzgen Historical and Architectural Complex	Uzgen

The maps provided by the Client have been added below for consistency of documentation.

Figure 1. Target Objects №1-8 "Sulaiman-Too Mountain"

Figure 2. Target Objects №13 "Uzgen Historical and Architectural Complex"

The Sulaiman Too Complex, situated in the city of Osh, Kyrgyzstan, is a UNESCO Heritage site and a sacred mountain with significant historical and cultural importance. The RED-1 project initiative by the World Bank aims to enhance and develop this iconic tourist attraction.

2.2. Consultants and Client

M/s Osmani & Company (Pvt.) Ltd., Consulting Engineers, Architects and Planners, located in Pakistan (shortened as "OCL'' or "OSMANI") Lead Firm in JV with RMJM Osmani (Pvt.) Ltd., Pakistan and RAM Engineering Associates LLC, Kyrgyz Republic are the consultants hired for this project after the completion of the competitive bidding process, titled "Development of Feasibility Study and DED of

Infrastructure of Sulaiman Too Complex and Uzgen Historical and Architectural Complex." Together, the consortium is referred to as the Consultants.

The project duration is for 14 months, from April 2023 to June 2024, however, an extension is given by the client up to October 2024. The Client is the Community Development and Investment Agency (ARIS). The contract was subsequently extended until December 2025.

The Client of this project is ARIS

2.3. Purpose and object ESIA

ESIA aims to identify the nature, intensity, and extent of potential impacts of planned project activities on the environment and public., The Project focuses on the Reconstruction and Modernization of Infrastructure at the Sulaiman-Too Complex (STC) and the Uzgen Historical and Architectural Complex (UHAC).

The ESIA's objective is to identify the primary sources and factors affecting environmental and social conditions in the project area and to propose measures to prevent, minimize, or mitigate any negative impacts during reconstruction and modernization activities as well as monitoring of the implementation of measures.

The ESIA is conducted during the development of feasibility study and project documentation stages, evaluating the potential environmental and social impacts of project decisions and anticipating environmental and social changes.

In line with the World Bank's Environmental and Social Framework (ESF), the assessment goes beyond the scope of a national Environmental Impact Assessment (EIA) by systematically addressing both environmental and social aspects, including labor and working conditions, community health and safety, stakeholder engagement, livelihoods, and cultural heritage.

This process helps determine the feasibility of project decisions and identify necessary environmental and social impact mitigation measures and resource management measures.

2.4. Conditions for conducting an ESIA

ESIA was prepared as part of the feasibility study for the infrastructure modernization project for the Sulaiman-Too National Historical and Archaeological Museum Complex (STC) and the Uzgen Historical and Architectural Complex (UHAC). The document was developed in accordance with the World Bank's Environmental and Social Framework (ESF) and aims to identify potential environmental and social impacts of the project and identify measures to prevent, minimize, and monitor them.

The project includes reconstruction, improvement, and modernization of the infrastructure of cultural heritage sites, as well as the construction of a new Museum of Fine Arts near the UHAC site.

In accordance with Kyrgyz Republic legislation, certain activities related to the construction of recreational and tourist facilities are subject to mandatory environmental impact assessment (EIA) procedures and state environmental review. This requirement is established by the Law of the Kyrgyz Republic "On General Technical Regulations for Ensuring Environmental Safety" (No. 151 of May 8, 2009) and the Regulation on the Procedure for Conducting Environmental Impact Assessments, approved by Resolution No. 60 of the Government of the Kyrgyz Republic of February 13, 2015.

The national EIA procedure is carried out at the design and estimate documentation (DED) development stage through the preparation of a mandatory "Environmental Protection" section. For the project under consideration, this procedure will be applied to subprojects that fall under national legislation, specifically the construction of a new building for the Museum of Fine Arts in Uzgen.

Certain types of work included in the project (repairs, landscaping, installation of navigation signs, small architectural forms, and tourist infrastructure elements) may not be considered activities subject to the mandatory national EIA procedure. However, their potential environmental and social impacts have been considered within the framework of this ESIA.

The ESMP presented in Table 6 of this ESIA is the Project-level ESMP and establishes the minimum environmental, social, occupational health and safety, and cultural heritage protection requirements applicable to all Project activities.

Before commencement of works, each construction Contractor shall prepare a site-specific Contractor's Environmental and Social Management Plan (C-ESMP) for the site or construction package under its contract. The site-specific C-ESMP shall translate the requirements of this ESIA and the Project-level ESMP into measures reflecting the final design, actual work methods, construction schedule, site conditions, sensitive receptors, cultural heritage features, access arrangements, and identified environmental and social risks.

Where one construction contract covers more than one Project site, a single C-ESMP may be prepared, provided that it contains separate site-specific sections, mitigation measures, monitoring arrangements, implementation schedules, maps, and responsible persons for each site. No mobilization or physical works shall commence at a site until the relevant site-specific C-ESMP provisions have been reviewed and approved by the Engineer and the ARIS Environmental and Social Specialists.

The site-specific C-ESMP requirement applies to all Project sites irrespective of whether the relevant activity is subject to the national EIA and state environmental review procedure.

2.5. Additional Observations

Transboundary context

Implementation of the project decision on the planned activity will not be accompanied by transboundary environmental impacts for the following reasons:

- the site does not fall within the list of activities listed in Appendix I of the Convention on Environmental Impact Assessment in a Transboundary Context;
- the impact of the planned activity is localized, insignificant in scale and minimal in impact; the planned activity does not have a harmful impact on the environment.

Expected Impacts and Land related impacts

The Project will support economic and regional development in an integrated manner in Osh region, contributing to job creation, poverty reduction, assisting in the creation and development of agricultural value chains and tourism development. There are no plans to allocate additional plots as part of the design solutions.

During the initial project preparation phase, thirteen subprojects were considered, some of which potentially posed risks falling under the World Bank's Environmental and Social Standard ESS5 "Land Acquisition, Land-Use Restrictions, and Involuntary Resettlement." Therefore, this standard was included in the preliminary environmental and social risk analysis.

During further development and approval of design solutions, the list of subprojects was revised and reduced to nine sites. All approved sites are located within the existing boundaries of the Sulaiman-Too National Historical and Archaeological Museum Complex (Osh) and the Uzgen Historical and Architectural Complex (Uzgen), whose land plots are state-owned and have the corresponding state acts (Government Resolution No. 471 of June 26, 2004 (land plot size 2.76 ha).

Therefore, the implementation of all planned activities within the project does not involve the acquisition of private land, residential property, commercial properties, or other private assets, and does not require the physical or economic displacement of the population. Based on the results of the completed environmental and social risk screening, no impacts falling within the ESS5 standard are expected.

Prior to the commencement of construction, additional environmental and social screening will be conducted for each subproject to confirm the absence of risks associated with land acquisition or

resource restrictions. Potential social impacts will be regularly monitored throughout the project implementation.

If impacts falling within the ESS5 standard are identified during project implementation, all necessary measures will be implemented in full compliance with the World Bank's Environmental and Social Standards and the national legislation of the Kyrgyz Republic.

Details of the screening and completed checklists are presented in a separate report - "Environmental and Social Impact Screening" (ESIS).

2.6. Observations on subproject's E&S Risk Categorization

For this project, which involves limited intervention in cultural heritage sites, the environmental and social assessment is being conducted in accordance with the requirements of the legislation of Kyrgyz Republic and the ESSs requirements of the World Bank.

In accordance with the requirements of the World Bank's ESS, an Environmental and Social Impact Assessment (ESIA) was prepared for the project. It is conducted at the feasibility stage and goes beyond the national EIA procedure, as it covers both environmental and social risks and impacts.

The national Environmental Impact Assessment (EIA) procedure and the requirements of Kyrgyz legislation apply to specific project activities and are discussed in detail in Section 2.4 of this report. Specifically, certain activities may be subject to the national EIA procedure at the design and estimate documentation development stage. In this project, such activities include the Uzgen Museum construction subproject.

The results of the environmental and social screening showed that the project's potential impacts will be localized, temporary, and manageable, occurring primarily during construction and restoration works.

Stakeholder engagement is an important element of managing the project's social risks. Stakeholder engagement will be conducted throughout the project lifecycle, beginning with the feasibility study and design development phases.

In the early stages of the project, consultations will be primarily working and expert-based, involving relevant organizations and key stakeholders. In subsequent stages of subproject implementation, engagement will be expanded to include a broader range of stakeholders and local communities outlined in the SEP.

The Cultural Heritage Impact Assessment (CHIA) assesses the individual heritage-related impacts of the proposed works as generally Moderate and manageable. The overall environmental and social risk classification of the Project remains Substantial due to the sensitivity and protected status of the heritage sites.

The environmental and social impact assessment (ESIA) showed that the proposed construction works will have manageable and limited impacts, and most of the identified risk can be effectively managed through the implementation of the prescribed management plans.

At the same time, given the high cultural, historical, and symbolic value of the sites, as well as their sensitivity as cultural heritage assets, the overall environmental and social risk category of the project is defined as "Substantial" within the World Bank classification.

This risk category is determined not by the scale of the anticipated impacts, but by the high sensitivity of the project area, including the location of the works within protected historical and cultural complexes and sites of national and international significance.

This approach ensures a more detailed development of risk mitigation measures and enhanced monitoring of their implementation, enabling the timely prevention of potential negative consequences during project implementation, particularly during the preparation and construction phases.

III. LEGAL AND INSTITUTIONAL FRAMEWORK

This section outlines the main national and international legal instruments governing environmental protection, social safeguards, labor relations, occupational safety, cultural heritage management, and stakeholder engagement in the Kyrgyz Republic.

The legal and institutional framework is based on the provisions of the Constitution of the Kyrgyz Republic (April 11, 2021), which establishes fundamental rights and principles in the areas of environmental protection, labor safety, and social safeguards. In parallel, the Project is implemented in compliance with the World Bank Environmental and Social Framework (ESF), the requirements of which are applied in addition to national legislation.

3.1. Main provisions of the national environmental and social legislation

The Constitution of the Kyrgyz Republic (April 11, 2021) establishes the basic principles of nature management, including the right of citizens of the Kyrgyz Republic to have access to primary sources of life, while the main resources (land, water and subsoil) are the common property of the people and the Kyrgyz Republic. Based on these principles, a legal framework was developed to regulate relations between users of natural resources and the state.

The Law of the Kyrgyz Republic "On Environmental Protection" (June 16, 1999, No. 53) defines the state policy and general legal framework for the use of natural resources and environmental protection, including environmental impact assessment, the establishment of environmental standards and legal regime of protected areas.

The Law of KR on Environmental Expertise (June16, 1999 No.54) ensures that economic and other activities comply with environmental requirements. Applies to projects that may have an impact on the environment, including feasibility studies, as well as projects for construction, reconstruction, development, reequipment, other projects, regardless of their estimated cost, affiliation or type of ownership, the implementation of which may have an impact on the environment. The law obliges the project proponent/initiator to submit the necessary documentation on the project and its environmental impacts to the SEE. The review of the submitted documentation is carried out by the MNRETS expert commission. Requires a favorable SEE decision prior to financing or implementation of the project. A negative opinion prohibits implementation of the project.

One of the main opportunities for participation of citizens and their associations in the decision-making process in the field of environmental protection and rational environmental management is public environmental expertise. There are 2 types of environmental expertise in the Kyrgyz Republic: state environmental expertise and public environmental expertise.

Regulation on the Procedure for Environmental Impact Assessment in the Kyrgyz Republic (February 13, № 60)

The Regulation on the Procedure for Conducting an Environmental impact assessment in the Kyrgyz Republic (hereinafter referred to as the Regulation) establishes the procedure for assessing the impact of planned activities on the environment (hereinafter referred to as the EIA). The purpose of the EIA is to prevent and/or mitigate the impact of the planned activity on the environment and related social, economic and other consequences.

The EIA is carried out in three stages.

- making a decision on the need for an EIA;
- preliminary EIA;
- the third stage of the EIA is an assessment of the impact of the planned activity on the environment, accompanying the project documentation (project, working draft), containing:
    - ✓ an updated comprehensive assessment of the impact of the selected basic implementation option;

- ✓ updated technical solutions and a set of measures to prevent, mitigate and minimize the impact of the planned activity, its functioning and liquidation on the environment and public health;
- ✓ a resource-based program of production control and monitoring of the component-by-component state of the environment during the construction, operation and decommissioning of planned activities;
- ✓ design standards for emissions, discharges of pollutants, formation and disposal of waste;
- ✓ Environmental Impact Statement.

The results of the impact assessment are drawn up in the form of a Section of the project (working draft) named as "Environmental protection section".

The Law of KR "General Technical Regulations on Ensuring Environmental Safety in the Kyrgyz Republic" (8 May 2009, No. 151) establishes general requirements for ensuring environmental safety in the design and implementation of activities at the objects of economic and other activities for the processes of production, storage, transportation and disposal of products/recycling.

Under this Law, hazard categories will be defined for each subproject to establish mechanisms for EIA implementation.

Land Code of the Kyrgyz Republic dated July 18, 2025 No. 150 regulates land relations, including the grounds for the acquisition, exercise, restriction and termination of rights to land plots, their state registration, as well as the procedure for the allocation and expropriation of land for state and municipal needs. The Code establishes the legal framework for the rational use and protection of land resources under a system combining state, municipal and private ownership, and aims to ensure the protection of the rights of land users and landowners.

Labor Code of the Kyrgyz Republic (January 23, 2025 No. 23) is the main legislative act regulating all labor issues that arise in the Kyrgyz Republic. The Code establishes state guarantees in the field of labour and is aimed at protecting the rights and freedoms of participants in labour relations. Article 9 of the Code prohibits discrimination and guarantees all citizens equal rights to work; discrimination in employment relations is prohibited. No one may be restricted in their labor rights and freedoms or receive any benefits in exercising them, regardless of gender, race, nationality, language, origin, property and official status, age, place of residence, religion, political beliefs, affiliation or dissent, membership in public associations, as well as other circumstances that are not related to the employee's business qualities and the results of his work. Any differences, exclusions, preferences, or refusal of employment, regardless of nationality, race, gender, language, religion, political beliefs, social status, education, or property status that led to a violation of equal opportunities in the world of work, are prohibited. Article 10 of the Code prohibits forced and child labor. Supervision and control over compliance with labour legislation is carried out by the Service for Supervision and Control over Labour Legislation under the Ministry of Labour, Social Protection and Migration of the Kyrgyz Republic, which also registers and reviews complaints related to labour relations.
The 2025 Code also introduces updated provisions, including recognition of remote and hybrid work, digital employment contracts, electronic labor records, and strengthened protections for vulnerable groups of workers, further aligning national legislation with international labor standards.
The Law of the Kyrgyz Republic "On labor protection" (August 1, 2003, No. 167) provides a framework for the regulation of working conditions, including workplace safety measures, workplace safety rules and workplace hygiene.

The Law of KR "On the Protection and Use of Historical and Cultural Heritage" (July 26, 1999, No. 91). This law establishes the legal framework for the protection, conservation, and utilization of heritage sites

- The law mandates the protection and effective utilization of heritage objects (Article 1). It details the types of heritage sites, including immovable and movable objects, historical monuments, archaeological sites, and elements of urban and rural architecture (Articles 3 and 4).
- The legal status of heritage sites is safeguarded by their inclusion in state lists, ensuring state protection (Article 6). Owners and custodians of these heritage sites are legally obliged to maintain and protect them, adhering to the established guidelines for conservation and restoration (Articles 16 and 34).
- The law outlines specific measures for the protection, conservation, and revitalization of heritage sites (Article 5). This includes identifying, recording, and promoting heritage sites, as well as implementing conservation and restoration projects.
- The Kyrgyz Republic, represented by appropriate state bodies, exercises full authority over the protection and utilization of these sites (Article 7). Community participation, particularly in the form of scientific, educational, and tourist activities, is encouraged to promote the cultural value of these sites (Article 30).
- The law also recognizes the importance of international cooperation in the field of heritage protection, aligning with international treaties and agreements (Article 41).

The Law of KR "On Museums and the Museum Fund of the Kyrgyz Republic" (July 24, 2015, No. 193)

- The Kyrgyz Republic's legislation governs the legal status of museums, which includes the Constitution, the fundamentals of legislation on culture, and international treaties ratified by the Republic. (Article 1 & 2)
- The establishment of museums, including museum in UHAC, requires:
  - ✓ Suitable premises aligning with the museum's purpose and preservation requirements.
  - ✓ Adequate financial and material resources.
  - ✓ Expert examination and evaluation of the museum fund.
  - ✓ Legal registration of the museum as an entity. (Article 13)
- Museums are categorized into various types, including historical, local history, literary, and art museums. The UHAC's museum fall under these categories, particularly emphasizing the documentation and presentation of historical and cultural development. (Article 18)
- Museum founders must provide necessary material and technical facilities, ensuring that museum buildings and premises are used in a way that aligns with the museum's cultural objectives and preserves the museum collection. (Article 21)
- Activities on museum territory must align with the museum's functional purpose and not negatively impact the museum collection's state. The museum is responsible for using and protecting the land and natural resources according to the land legislation of the Kyrgyz Republic. (Article 22).

The Law of the Kyrgyz Republic "On the procedure for considering citizens 'appeals" (May 4, 2007, No. 67) requires complaints from citizens of the Kyrgyz Republic to be registered, properly considered and dealt with in a fair, timely and accountable manner (Articles 2 and 4). Every citizen has the right to apply personally or through his representative to State authorities, local self-government bodies and their officials, who are obliged to give a reasoned response within the time limit established by law (Article 4). A complaint registered with a State or local self-government body must be considered within 14 working days, although in exceptional cases this period may be extended for no more than 30 days (Article 8).

Law "On State Guarantees of Equal Rights and Equal Opportunities for Men and Women" (August 4, 2008, No. 184) establishes state guarantees to provide equal rights and opportunities to individuals of different genders in political, social, economic, cultural, and other spheres of human activity; it is

designed to protect men and women from gender discrimination and aims to establish progressive democratic relations between men and women.

Law "On the Right to Access Information" (December 29, 2023, No. 217) ensures the implementation and protection of every individual's right to access information under the authority of the information holders defined in this Law and achieves maximum informational openness, transparency, and publicity in their activities.

In accordance with national legislative requirements, information disclosure and consultations take place at the EIA (Environmental Impact Assessment) stage and during the state environmental expertise process. Public participation in local project development is regulated by the following documents:

- Regulation No. 60 "On the Procedure for Environmental Impact Assessment (EIA) in the Kyrgyz Republic" (February 13, 2015).
- The Kyrgyz Republic is a party to numerous international conventions in the field of EIA, including the Aarhus Convention on Access to Information, Public Participation in Decision-Making, and Access to Justice in Environmental Matters (Law of the Kyrgyz Republic on Accession, January 12, 2001, No. 5), which regulates, among other things, access to environmental information.

The Law of the Kyrgyz Republic "On the rights and guarantees of persons with disabilities" (April 3, 2008, No. 38) establishes guarantees of protection and assistance provided to persons with disabilities, as well as measures aimed at protecting public health, preventing disability and creating conditions for integration of persons with disabilities into society.

Civil Code of the Kyrgyz Republic (May 8, 1996, No. 15). Civil legislation determines the legal status of participants in civil transactions, the grounds for the emergence and procedure for the exercise of property rights and other real rights, rights to the results of intellectual activity and equivalent means of individualization (intellectual property), regulates contractual and other obligations, as well as other property and related them personal non-property relations.

3.2.. International Environmental and Social Treaties and Conventions

The Kyrgyz Republic is a party to a number of international environmental, social, and labor treaties and conventions, which are an integral part of its legal system and form the basis for compliance with the state's international obligations. These agreements cover environmental protection, biodiversity conservation, cultural heritage protection, public participation in decision-making, and the promotion of labor rights and safe working conditions.

In accordance with the Constitution of the Kyrgyz Republic, ratified international treaties take precedence over national legislation and are subject to applicable law. Project implementation takes into account the provisions of international environmental and labor conventions to which the Kyrgyz Republic is a party, which helps ensure that project activities comply with the state's international obligations and the principles of sustainable development.

3.3. Environmental and Social Framework of World Bank

The World Bank Environmental and Social framework (ESF) applies to all Investment Project Financing (IPF) initiated on or after October 1, 2018. This is an important step forward in areas such as employment relations, non-discrimination, climate change mitigation and adaptation, biodiversity, public safety and health, and stakeholder engagement, including enhancing public participation and improving mechanisms for dealing with and resolving grievances. The ESF further enhances the World Bank's sustainability efforts through the implementation of 10 environmental and social standards (ESS) designed to assist Borrowers in managing environmental and social (ES) risks. ESF takes a risk-based approach that increases control and resources for complex projects and enables them to respond more quickly to changing project circumstances through adaptive risk management and stakeholder engagement.

The ESF includes the following items:

- The Concept of sustainable development, reflecting the Bank's aspirations to achieve environmental and social sustainability;
- The World Bank Environmental and Social Framework for Investment Project Financing, which establishes mandatory requirements applicable to the Bank;
- Environmental and Social Standards (ESS), together with their annexes, establishing mandatory requirements for the Borrower and projects.

Borrowers and projects must also comply with the relevant requirements of the World Bank Group's Environmental, Health and Safety (EHS) Guidance.

According to the planned activities within the framework of the Project, out of the ESSs, seven will be related to the activities of the Project. These 7 ESSs set the standards that the ARIS as the Implementation Agency (IA) and the Project should meet throughout the life cycle of the project, namely:

- ESS 1: Assessment and management of environmental and social risks and impacts;
- ESS 2: Labor and working conditions;
- ESS 3: Resource Efficiency and pollution prevention and management;
- ESS 4: Community health and safety;
- ESS 5: Land Acquisition, Restrictions on Land Use, and Involuntary Resettlement
- ESS 8: Cultural Heritage;
- ESS 10: Stakeholder engagement and information disclosure.

The ESS requires that the World Bank Group Environment, Health and Safety (EHS) Guidelines apply to the project.

The EHS Guidelines are technical reference documents with generic and industry-specific examples of Good International Industry Practice (GIIP) referenced in the EFS WB. The EHS Guidelines contain performance levels and measures generally acceptable to the World Bank Group and that are considered to be achievable in new facilities at a reasonable cost using existing technologies.

The World Bank Group requires borrowers to apply the appropriate levels or measures of the EHS Guidelines. When host country regulatory requirements differ from the levels and measures presented in the EHS Guidelines, projects will need to be achieved whichever is more stringent.

Applicable EHS guidance for the project, depending on the specific type of work, includes but is not limited to the following:

- General EHS Guidelines of the World Bank Group (2007); https://www.ifc.org/content/dam/ifc/doc/2023/ifc-general-ehs-guidelines.pdf
  In the case of the Project, the General EHS Guidelines apply. ARIS will pay particular attention to the following General EHS Guidelines[1]:
- EHS 1.0 – Environmental;
- EHS 1.6 - Waste Management https://www.ifc.org/content/dam/ifc/doc/2000/2007-general-ehs-guidelines-waste-management-en.pdf
- EHS 2.0 - Occupational health and safety;
- EHS 3.0 - Community health and safety;
- EHS 4.0 - Construction and decommissioning.

[1] EHS in Russian: https://www.ifc.org/wps/wcm/connect/be37221a-fc47-4379-b539-eca3fe72c3e6/General%2BEHS%2B-%2BRussian%2B-%2BFinal_.pdf?MOD=AJPERES&CVID=jqeI79F&ContentCache=NONE&CACHE=NONE

The Contractor shall prepare EHS checklists, Code of conduct and safety trainings prior to commencement of works.

Applicable Legal and Policy Frameworks

This Environmental and Social Impact Assessment (ESIA) for the STC and UHAC subprojects has been prepared in accordance with both the national environmental and social legislation of the Kyrgyz Republic and the World Bank Environmental and Social Framework (ESF, 2018), which includes ten Environmental and Social Standards (ESS1–ESS10).

Given that these subprojects are financed under a World Bank–supported project, the ESIA adopts a dual compliance approach:

- compliance with national legal and regulatory requirements, including the Law on Environmental Expertise (2023), the Law on Environmental Protection (1999, as amended), and other sectoral regulations; and
- consistency with the World Bank ESF, ensuring adherence to international best practices in environmental and social risk management.

In the event of any discrepancies or inconsistencies between the national legislation and the World Bank ESF, the more stringent provisions will apply.

Accordingly, the World Bank Environmental and Social Framework will take precedence in guiding project preparation and implementation, while ensuring that all obligations under the laws of the Kyrgyz Republic are also fully met.

3.4. Gap Analysis

A summary of the ESSs, their relevance to the project, as well as a gap analysis in national legislation within the considered World Bank standards are discussed in Table 2

Table 2. Gap analyses in the requirements of national legislation and the requirements of the ESS of the World Bank within the framework of the project

WB ESS requirements	Environmental and social requirements of national legislation	Gaps	Actions by Project
ESS 1 - Assessment and management of environmental and social risks and impacts - Applicable			
ESS1 identifies, assesses and manages the environmental and social risks and impacts of the project in accordance with the ESS. This standard uses a mitigation hierarchy approach: a) anticipate and avoid risks and impacts; b) if not avoidable, minimize or reduce risks and impacts to acceptable levels; c) once risks and impacts have been minimized or reduced, proceed to mitigate them; and (d) where significant residual impacts remain, offset them if technically and financially feasible. Take differentiated measures so that adverse impacts do not fall disproportionately on the disadvantaged or vulnerable, and that they do not suffer from the sharing of benefits and development opportunities arising from the project. Use national environmental and social institutions, systems, laws, regulations and procedures in the evaluation, development and implementation of projects, where appropriate. Contribute to the improvement of environmental and social performance in a manner that recognizes and enhances the Borrower's capabilities.	• Law "On Ecological Expertise" No. 54 of 1999 (as amended on 04 May 2015). • Law on Environmental Protection No. 53 of 1999 • Law "General technical regulations for ensuring environmental safety". No. 151 of 2009 • Regulations on the procedure for conducting environmental impact assessment in the Kyrgyz Republic (February 13, 2015, No. 60). • Regulations on the procedure for conducting state environmental expertise in the Kyrgyz Republic (May 7, 2014, No. 248).	The environmental risk classification system under Kyrgyz Republic law is based on the inclusion of a "List" of activities that are either subject to or not subject to EIA. Environmental Impact Assessment is conducted for the construction of recreational and tourist facilities, which is subject to mandatory environmental impact assessment in accordance with paragraph 19 of Annex 1 of the KR Law on General Technical Regulations to Ensure Environmental Safety in the Kyrgyz Republic No. 151 dated May 8, 2009 and paragraph 5 of the Regulations on the Procedure for Environmental Impact Assessment in the Kyrgyz Republic approved by the KR Government Resolution No. 60 dated February 13, 2015. Based on Regulation on the procedure for conducting environmental impact assessment in the Kyrgyz Republic, according to Government Decree No. 60 of February 13, 2015, it will be necessary to pass the 3rd stage environmental impact assessment (ESIA) - development of the Section of Environmental Protection for detail project documentation for the rehabilitation works of the objects cultural heritage, which includes an Environmental Management Plan (EMP). The subproject Museum in Uzgen falls under this category. Whereas under the ESF, risk is classified based on due diligence and according to the Bank's classification. However, some provisions of ESS 1 are not fully reflected in national legislation – for example, in relation to social risk assessment, the need to identify vulnerable and disadvantaged groups, and the application of differentiated measures to prevent disproportionate impacts or adverse impacts when sharing development benefits. National legislation also lacks other types of social risk assessment and mitigation, such as public health and safety, although some of these aspects are present in other government regulations, such as air or water pollution, and food safety.	The following tools were prepared for the actions: • ESIA; HIA • Screening checklists (environmental and social) • ESMP/ESMP checklist • SEP. The ESIA covers the applicable WB ESS and the EHS Guidelines of the World Bank Group. The more stringent of the national and WB ESSs will apply. The ESIA includes screening checklists to determine where and when Environmental and Social Management Plans (ESMPs) or ESMP Checklists are required. The preparation of the ESIA (OVOS) within the framework of national legislation, as part of the design and estimate documentation, will be carried out at the next stage of detailed design. Stakeholder Engagement Plan (SEP) outlines strategies and mechanisms for engaging with stakeholders, including affected communities, local authorities, civil society organizations, and other relevant actors. It bridges the gaps between national legislation and the World Bank's ESS.

ESS 2 - Labor and Working Conditions - Applicable			
ESS2 recognizes the importance of job creation and income generation in the pursuit of poverty reduction and inclusive economic growth. The standard applies to project workers, including full-time, part-time, temporary, seasonal and migrant workers. Subject to these requirements, the Borrower shall develop and implement written workforce management procedures applicable to the project. These procedures shall define how project workers are managed in accordance with the requirements of national legislation and this ESS. Procedures should consider how this ESS will apply to different categories of project workers, including direct workers, and how the Borrower will require third parties to manage its workers in accordance with ESS 2. The standard recognizes the promotion of occupational safety and health and fair treatment, non-discrimination and equal opportunity for project workers; prevents the use of all forms of forced and child labor and upholds the principles of freedom of association and collective bargaining with workers, in accordance with national law.	• Labor Code of the Kyrgyz Republic, 2025. • Law of the Kyrgyz Republic on labor protection of 2003. • Conventions of the International Labor Organization (ILO). The Kyrgyz Republic has been a member of the ILO since 31 March 1992 and has ratified a number of key conventions, including all the ILO fundamental conventions: • No. 29 "On Forced Labour" • No. 105 "On the Abolition of Forced Labour" • No. 87 "On Freedom of Association and Protection of the Right to Organise" • No. 98 "On the Right to Organise and Collective Bargaining" No. 100 "On Equal Remuneration" • No. 111 "On Discrimination (Employment and Occupation)" • No. 138 "On Minimum Age for Admission to Employment" • No. 182 "On the Elimination of the Worst Forms of Child Labour" The Kyrgyz Republic has also ratified a number of priority and technical conventions regulating inspection issues labor, labor protection and employment conditions.	The Kyrgyz Republic has ratified eleven ILO conventions on issues such as forced and child labor, freedom of association, the right to organize and conduct collective bargaining, non-discrimination and labor inspection. The National Labor Law, with the latest amendments in April 2021, establishes state guarantees of labor rights and freedoms of citizens, creates favorable working conditions, and protects the rights and interests of workers and employers. In addition to this Law, the government has approved fourteen other laws and more than twelve regulatory legal acts that directly relate to labor relations. Taken together, the laws adopted in the country cover many of the goals and requirements of ESS 2. Registration of complaints and subsequent procedures are available in the Law on Citizens' Petitions; however, they are common to all project affected persons and do not define a specific grievance redress process for employees as required in ESS2.	The project will be implemented in accordance with the applicable requirements of ESS 2 by implementing appropriate health and safety measures, including emergency preparedness and response measures; determination of mechanisms for communication with project workers and inclusion of OHS requirements as technical specifications in tender documents and contracts with contractors and supervisory firm. Civil works contracts will include EHS-based social and environmental mitigation measures and the ESIA. The Borrower will develop and approve project-level Labor Management Procedures (LMP). Each Contractor will be required to comply with the requirements of the Project's LMP. If necessary, depending on the number of workers and the scope of work, contractors may develop their own labor management procedures, including the development and implementation of a Code of Conduct and measures to prevent SEA/SH. Site specific ESMPs or ESMP checklists will be prepared for the construction period, addressing labor and occupational safety issues. In accordance with ESS2 and relevant national legislation, the Project prohibits the use of forced and child labor.
ESS 3 - Resources and Efficiency, Pollution Prevention and Management - Applicable			
ESS3 recognizes that economic activity and urbanization often generate air, water and land pollution and consume limited resources that can threaten people, ecosystem services and the environment at the local, regional and global levels. The standard sets out requirements for resource efficiency, pollution prevention and management throughout the life of the project in accordance with Good International Industry Practice (GIIP).	• Law on Environmental Protection 1999. • Water Code,, 2025. • Law on Production and Consumption Wastes of 2023.	The national regulatory framework for pollution prevention prioritizes the protection of public health and is based on the definition of threshold values for permissible concentrations of pollutants to which people may be exposed. The environmental regulation requires the calculation of expected negative impacts such as emissions, noise, wastewater discharges, waste generation as part of the EIA, to prove the compliance of the proposed project with the established threshold values.	The ESIA covers issues of resource efficiency, pollution prevention and management, it requires that risk definitions and proposed mitigation measures related to the relevant requirements of ESS3, including raw materials, water use, air pollution, waste generation, be included in the Contractor's ESMP or ESMP checklists, if applicable. Design, construction/rehabilitation of water supply systems as well as the main equipment, mechanization and automation means must comply with national legal norms and the requirements of international technical regulations and standards. The Contractors will prepare an ESMPs or ESMP checklists covering all types of possible waste

			generated during the implementation process including dirt and debris, household waste, hazardous waste if found.
ESS 4 - Community Health and Safety - Relevance - Applicable			
ESS4 considers the community health and safety risks and impacts affected by the project and the Borrowers' respective responsibilities for preventing or minimizing such risks and impacts, with particular attention to individuals who, due to their circumstances, may be vulnerable.	• Law on Environmental Protection. • Labor Code of the Kyrgyz Republic, 2025.. • Law of the Kyrgyz Republic on labor protection..	The general principles of protecting the health and safety of citizens and communities are enshrined in the Constitution of the Kyrgyz Republic and the Law on Environmental Protection. These laws provide that everyone has the right to live in a natural environment that does not harm his health. To achieve this goal, thresholds are established to limit human exposure to hazardous environments based on several physical, chemical and biological parameters.	The following tools were prepared for the solution: • ESMP/ESMP checklists; • SEP with Project GRM. The ESIA covers the applicable ESSs and the EHS Guidelines of the World Bank Group. The ARIS will take measures, including requiring contractors to develop a health and safety plan as part of the ESMP (during construction phase) or ESMP checklists to address the impact of moving construction equipment on local communities; measures and actions designed to assess and manage the specific risks and impacts outlined in the ESIA and subsequent ESMPs or ESMP checklists. All activities will comply with applicable national regulations and ESS4.
ESS 5 - Land Acquisition, Land Use Restrictions and Involuntary Resettlement - Applicable			
ESS5 mitigates the inevitable adverse social and economic impacts of land acquisition or restrictions on land use by: (a) providing timely compensation for loss of assets at replacement cost, and (b) assist displaced persons in their efforts to improve, or at least restore, their livelihoods and living standards, in real terms, to pre-displacement levels or pre-project levels, as appropriate, which is higher. This standard improves the lives of poor or vulnerable people who are physically displaced by providing adequate housing, access to services and amenities, and security of tenure.	• Civil Code, 2025. • Land Code, June (Article 51, 66, 67, 69). • Law on State Registration of Rights to Real Estate and Transactions Therewith, 1998. • The Law of the Kyrgyz Republic "On Appraisal Activities" regulates relations related to appraisal activities in the Kyrgyz Republic. It establishes the legal, organizational, and methodological foundations of appraisal activities, requirements for appraisers and appraisal organizations, the procedure for appraising movable and immovable property, and defines the requirements for appraisals for compensation, land acquisition, and other purposes related to the implementation of investment projects. According to this law and its by laws, appraisal activities are subject to licensing, are conducted based on professional appraisal standards, and are used by all appraisal entities in the preparation of property valuation reports necessary for determining compensation for land plots and real estate affected by the project.	The Land Code of the Kyrgyz Republic states that the withdrawal of land is an exceptional measure for the termination of the right to a land plot. The constitution and several laws refer to the need for compensation for land acquisition, although there are no specific requirements for the preparation of action plans for land acquisition or resettlement with a detailed procedure. In accordance with the national legislation of the Kyrgyz Republic, affected persons are those who have formal legal rights to land or property and/or have a right to land or property recognized under national law. The latter mainly concerns land rights allocated by the relevant authorities, but not yet registered in accordance with the law. Users of land or property without proof of such a claim are not entitled to compensation. This is one of the main legal gaps that exist between national legislation and the ESF. The national legislation does not say anything about the rehabilitation and improvement of the living conditions of the households affected by the project, or about special attention to vulnerable persons and additional assistance to them.	Ensure all works remain within state-owned land boundaries. Monitor for temporary economic displacement (e.g., seasonal vendors, restricted access for visitors). If impacts occur, provide temporary livelihood support or access restoration in line with ESS5. Operate a functional GRM to register and resolve land- and access-related complaints. Integrate these measures into ESMP and contractor obligations. Pay particular attention to vulnerable persons (e.g., women, elderly, low-income seasonal vendors) in applying support measures.

	• Resolution of the Cabinet of Ministers of Kyrgyz Republic 'On the Approval of Property Valuation Standards Mandatory for Use by Valuers and Valuation Organisations in the Kyrgyz Republic' dated 16 October 2025 No. 673, the property valuation standards specified in paragraph 1 of this resolution are mandatory for use by valuers and valuation organisations in the Kyrgyz Republic.		
ESS 6 - Biodiversity Conservation and Sustainable Management of Living Natural Resources – Not applicable			
ESS 7 - Indigenous Peoples - Not applicable			
ESS 8 - Cultural Heritage – Applicable			
ESS8 protects cultural heritage from the adverse impacts of project activities and supports its conservation and considers cultural heritage as an integral aspect of sustainable development. The Borrower will apply internationally recognized methods of field study, documentation and protection of cultural heritage in connection with the project, including by contractors and other third parties.	• Law on the protection and use of historical and cultural heritage, 1999; • Law of KR "On Museums and the Museum Fund of the Kyrgyz Republic", 2015.	National legislation comprehensively covers many aspects related to historical and cultural heritage. The Law on the Protection and Use of Historical and Cultural Heritage obliges the state to recognize the common cultural values of mankind to support cultural development and international cultural relations, to ensure the availability of cultural values to the public and to preserve the freedom of expression of every citizen his own cultural identity. The state establishes a system for the protection of objects of local, state and international historical or cultural significance.	Contractor's contracts will include requirements to prepare a "chance finding" procedure. Project actions must develop and implement plans to mitigate any adverse impacts on cultural heritage. This involves not only the preservation of physical sites but also the safeguarding of intangible cultural heritage. The mitigation measures should be integrated into the project's Environmental and Social Management Plan (ESMP) or ESMP checklists. A separate Cultural Heritage Impact Assessment Report has been prepared, which provides recommendations and measures for project implementation.
ESS 9 - Financial intermediaries - Not applicable			
ESS 10 - Stakeholder Engagement and Information Disclosure – Applicable			
ESS10 recognizes the importance of open and transparent communication between the Borrower and project stakeholders as an important element of international best practice. Effective stakeholder engagement can enhance the environmental and social sustainability of projects, increase their acceptability, and make a significant contribution to the successful design and implementation of a project. The Borrower will engage with stakeholders throughout the life cycle of the project, commencing such engagement as early as possible in the project development process and at a time that allows for meaningful stakeholder consultation on project	• Constitution of the Kyrgyz Republic • Law on the Right of Access to Information • Law on the rights and guarantees of persons with disabilities • Law on the Procedure for Considering Citizens' Appeals • Law on Local State Administration and Local Self-Government	In general, sound legislation exists, but it needs to be applied consistently. Regarding investment projects, national legislation and regulations are focused mainly on stakeholders, interaction at the stage of project preparation. The existing legal framework describes in detail the procedure for dealing with complaints without the division into local, regional/central levels, as in projects funded by IFIs. There are no special rules in national legislation concerning the participation of vulnerable or disadvantaged individuals and groups in public consultations and project activities. Provisions for disclosure of information and meaningful consultation with project-affected persons are not as clear as in the ESF.	The project's priority is to identify the stakeholders that can be positively and negatively impacted by project activities, in particular the impact on people's lives and the sustainability of livelihoods. In this regard, a list of key stakeholder groups was compiled. The information and consultation process shall be started at early stage of Project preparation, including project design, environmental and social assessment, identification of impact mitigation measures, development of the ESF instruments in order to get people's opinions on the project. The project has prepared a SEP outlining all the different types of stakeholders, including vulnerable groups, timing and modalities of communication and consultation.

development. The nature, extent and frequency of stakeholder engagement will be proportionate to the nature and scale of the project and its potential risks and impacts. In consultation with the Bank, the Borrower will develop and implement a Stakeholder Engagement Plan (SEP) proportionate to the nature and scale of the project and its potential risks and impacts.			The SEP describes a Grievance Redress Mechanism (GRM) for the Project address the issue of transparency and feedback.

3.5. National Institutional system for the environmental and social management

In the Kyrgyz Republic, state power is divided into legislative, executive and judicial. Each of them is carried out by special bodies intended for this purpose. The most important is executive power, because through it the implementation of laws, the implementation of laws, the application of laws in real life are carried out.

Table 3. Government agencies involved in social and environmental issues in this project

#	Name	Description
1	Government institutions involved in the environment and social issues	**Ministry of Natural Resources, Ecology and Technical Supervision (MNRETS)**, in accordance with the Regulations on the Ministry of Natural Resources, Ecology and Technical Supervision of the Kyrgyz Republic (Resolution of the Cabinet of Ministers of the Kyrgyz Republic dated November 15, 2021 No. 263), exercises protection and control in the field of flora and fauna, protected areas, biodiversity , radiation protection, protection of the ozone layer, industrial ecology, protection of the quality of water, land resources and atmospheric air, forest ecosystems, etc.
2		**Environmental and Technical Supervision Service under the Ministry of Natural Resources, Ecology and Technical Supervision of the Kyrgyz Republic,** in terms of implementation of control functions on compliance with the norms and rules of environmental management and protection.
2		**Department of Environmental Monitoring** conducts monitoring and assessment of the state of the environment to provide state bodies and economic entities with information on actual changes in the state of the environment and the reasons for these changes to prevent and reduce damage.
4		**Department of Disease Prevention and State Sanitary and Epidemiologic Surveillance of the Ministry of Health,** in terms of bacteriologic and chemical monitoring of drinking water quality (drinking water quality, population disease incidence).
5		**Agency for Hydrometeorology under the Ministry of Emergency Situations of the Kyrgyz Republic,** in terms of monitoring of atmospheric air and surface water.
6		**National Academy of Sciences,** regarding the implementation of scientific work on the problems of scientific, technical and social progress, contributing to the strengthening of the economic sovereignty of the Republic, national and universal human values, and environmental protection.
7		**National Statistical Committee** of the Kyrgyz Republic. The key state information and statistical body that organizes and maintains records and statistics in the Kyrgyz Republic. Environmental statistics
8		**Ministry of Labour, Social Security and Migration (MLSSM)** The purpose of the Ministry is to implement the state policy in the field of: – labor, including issues of labor protection and promotion of employment of the population; – social protection of the population, including support for socially unprotected categories of citizens, children in difficult life situations, persons with disabilities and the elderly; – social security and gender equality; – protection and protection from domestic violence; – migration, including issues of immigrants, ethnic Kyrgyz and refugees, as well as prevention and combating human trafficking.
9		**State Agency for Civil Service and Local Self-Government under the Cabinet of Ministers of the Kyrgyz Republic** The tasks of the Agency are: – improvement of the unified state policy in the field of civil service, municipal service and local self-government; – ensuring the rights and legitimate interests of state and municipal employees (hereinafter referred to as employees); – improvement and optimization of the system of state administration and local self-government; – assistance in strengthening the organizational, legal, financial and economic foundations of local self-government.
10		**State Agency for Land Resources, Cadastre, Geodesy and Cartography under the Cabinet of Ministers of the Kyrgyz Republic** implements a unified state policy on the land cadastre, land relations, cadastral mapping, land management, registration of rights to real estate and transactions with it, analysis of the land and real estate market. Provision of owner information on land resources, provision of information on the boundaries of land plots. Providing information on the rights to land and other real estate for the development of the project.
11		**Ministry of Culture, Information, and Youth Policy of the Kyrgyz Republic**. The Ministry is responsible for implementation of a unified state policy in the fields of culture, information, sports and youth policy; preservation, use and development of historical and cultural heritage; creating conditions for the development of folk art, citizen participation in cultural life and the organization of leisure activities of the population; making proposals on creating favorable investment conditions for the development of tourism facilities and infrastructure; promoting the growth of the quality of services provided by the tourism sector; and formation and support of a positive image of the Kyrgyz Republic as a country favorable for tourism.

12	LSG institutions related to the implementation of the Project	**ARIS** Responsible organization for project implementation. The project implementing organization responsible for all fiduciary and safeguards functions for the project.
13		**Local public administration**. The local public administration exercises executive power in the district/rayon, a state executive authority that ensures on the relevant territory the coordinated activity of territorial subdivisions of state executive authorities, their interaction with local self-government bodies and exercises state control over the execution of delegated powers. The head of the local public administration (hereinafter - akim) shall manage the activity of the local public administration on the principles of one-man management.
14		**Local self-government bodies.** Local government is an independent activity of the local community in its own interests and under its own responsibility, aimed at solving issues of local significance. Local self-governance is carried out by local communities through representative and executive bodies, as well as through direct participation of citizens. The executive body of local self-government in aiyl aimak is aiyl okmotu.
15	NGOs involved in the implementation	**NGOs** are engaged in cultural heritage protection, biodiversity conservation, social inclusion, and stakeholder engagement (Aigine Cultural Research Center, Ilbirs Foundation for Flora & Fauna Conservation, "Ravenstvo" Public Association of Persons with Disabilities, Babushka Adoption Foundation, Aitysh Public Fund)

IV. PROJECT DESCRIPTION

4.1. Project objects and Development Concept

The Sulaiman-Too Complex (STC) and Uzgen Historical and Architectural Complex (UHAC) stand as emblematic symbols of the profound historical and cultural heritage within the Kyrgyz Republic. Located in Osh City, the "Southern Capital" along the Silk Road, STC represents a convergence of diverse cultural and religious influences. As a UNESCO World Heritage Site, STC showcases a rich tapestry of spiritual and historical narratives, featuring petroglyphs and sacred sites spanning various cultural epochs.

UHAC, another integral component in this historic landscape, reflects the architectural and cultural wealth of the Kyrgyz Republic. Positioned strategically on the Silk Road, UHAC exemplifies a unique blend of cultural exchanges evident in its historic mausoleums and madrasas. These structures not only showcase architectural ingenuity but also serve as custodians of the regions storied past. Together, STC and UHAC play a pivotal role in understanding the historical and cultural evolution of the Kyrgyz Republic, emphasizing the significance of their preservation and promotion for sustainable tourism development and cultural continuity.

4.1.1 Design Concept

Since completing the Inception Report on August 6, 2023, and the Development Concept Report on November 20, 2023, the Design Team has advanced through a thorough Concept Design Development process. This included gathering stakeholder feedback, refining connectivity plans, and understanding the interactions among communities, tourism, and academia within the 13 Heritage Facilities.

Following a subsequent review of design decisions and approvals, the list of subprojects was refined: reconstruction work on 8 facilities in Osh, as well as the construction of a new Museum building in Uzgen, were proposed for implementation.

The process enhanced facility design through infrastructural interventions, curatorial programming, and technical and cost considerations. A key outcome, based on fieldwork, surveys, and stakeholder meetings, was the decision to implement “Clusters” in the Connectivity Plan. This approach supports:

- Positive Tourism Experience
- Strengthened Local Competence and Capacity Building
- Emphasis on Landmark Placement and Zonal Connections
- Site Management Planning focused on Conservation and Cultural Heritage Value
- Improved Infrastructural and Commuting Connectivity, boosting social and economic conditions.

These discussions clarified priorities for proposed actions.

4.1.2 Planning Approach

With the acceptance of the Development Concept for the Sulaiman Too Complex and Uzgen Historical and Architectural Complex, strategic land management planning is essential to ensure these sites’ preservation and sustainable development. The Sulaiman Too Complex holds both World Cultural and Natural Heritage values, while the Uzgen Complex, recognized as a Monumental Cultural Heritage Site, requires careful planning for its continued protection.

The planning approach promotes harmony between heritage sites, their environment, and surrounding communities:

1. Corridor: A designated area that balances pedestrian and vehicular connectivity.
2. Linkage Zones: Key areas that improve pedestrian connectivity and strengthen functionaland visual links between project landmarks.
3. Permeability: Ensures that the spatial layout supports unobstructed pedestrian movement, maintains existing circulation routes, and avoids unnecessary physical barriers within public spaces.

These planning principles relate to pedestrian circulation, accessibility, and spatial integration between existing project facilities. They do not refer to ecological corridors, wildlife movement, or interventions in natural habitats.

The Connectivity Planning proposal enhances tourism and economic development by linking isolated points into clusters, aligning with Osh and Uzgen's infrastructure plans. It includes rehabilitation and restoration of existing sites, improvement of landscaped public areas, revitalizing public spaces, and development of the proposed project facilities.

4.2. Clusters and Key Development Areas

The design concepts for the Clusters and Key Development Areas presented here result from extensive collaboration. Insights from field observations, topographic surveys, and stakeholder engagement enriched the holistic design approach. Contributors included local community representatives, participants from a student design competition, surveyors, academics, historians, Cultural Directors, tourism operators, and Environmental and Social Screening consultants.

This multidisciplinary approach has been essential in developing design concepts that reflect each cluster's unique character. Integrating local knowledge with international best practices aligns the concepts with the accepted Development Concept Report. As the report details each cluster, it highlights innovative, sustainable solutions for preserving and enhancing cultural heritage at the Sulaiman-Too and Uzgen complexes.

During initial stages, heritage experts assessed draft design concepts to identify potential negative impacts, prompting reconsideration and downscaling of some interventions. These refined concepts are now presented for reassessment to ensure heritage conservation values are upheld.

Clusters are divided according to their locations:

- Cluster 1: Sulaiman Too Complex
  - ✓ *Cluster 1.1 (Entrances, Cave Museum, Mountain Trail & Viewing Deck)*
  - ✓ *Cluster 1.2 (Ethnographic and Archeological Museum, and Frontal Square of Mausoleum Burkiya)*
- Cluster 2: Uzgen Historical and Architectural Complex
- Cluster 3: Bronze Age Settlement

4.3. Cluster 1: Sulaiman Too Complex

Cluster 1, as defined for this project, encompasses all target sites within the Sulaiman-Too Complex. This cluster serves as the foundational grouping for the investment program, incorporating sites ranging from the Mountain Trail to the Craftsmen Street, each contributing to the rich cultural and historical fabric of the region. Further subdivision within Cluster 1 into Cluster 1.1, 1.2, and 1.3 allows for a more nuanced approach to project management and resource allocation, catering to the ways in which sites landing under the larger STC umbrella interact with each other.

4.3.1 Cluster 1.1

1. **Sacred & Cultural Heritage Trail:** Sulaiman Too Mountain Trail
2. **Access Infrastructure Facility:** Water Gate, Fire Gate, North Access (Mountain Gate)
3. **Museum Development & Rehabilitation:** Cave Museum.

Figure 3. Cluster 1.1 Existing Amenities Masterplan

1. SITE: Sulaiman Too Mountain [Trail]

The Sulaiman Too Mountain, with its expansive dimensions of 1140 meters from east to west and 560 meters from north to south, occupies a vast 75-hectare area at the heart of Osh. Its historical significance is deeply embedded in its five domed limestone structure, adorned with surviving petroglyphs that trace back to earlier periods, making it a symbolic representation and defining feature of the city.

Recognized as a UNESCO World Heritage Site, Sulaiman Too Complex dominates the Osh skyline and serves as a popular destination for hiking and exploring the region's diverse flora and fauna. Rising abruptly from the surrounding plains, the mountain reaches an elevation of approximately 1,100 meters above sea level. It is also a significant pilgrimage and sacred site for Muslims, believed to be the burial place of Prophet Solomon.

Predominantly composed of sandstone, Sulaiman Too Mountain rises abruptly with steep slopes and rugged terrain, featuring a variety of vegetation, caves, and grottoes considered sacred by locals. The topography includes rocky outcrops, sandy slopes with hay, and flat terrain at specific locations. The Western Entrance stands out for its gentler slopes, adding to the diverse and unique landscape of this historically and culturally rich site.

Current situation

Infrastructure: The public trail demonstrates a deficiency in international exposure.

The trail necessitates enhancements in ethical material considerations, the implementation of a preservation protection barrier, establishment of a secure and contained system featuring substantial gateways, as well as the provision of public amenities. These measures are essential to elevate the site to an international standard of historical significance.

A prominent issue adversely impacting the aesthetic appeal of the STC involves the visibility of water pipelines and dangling electrical wiring. This not only compromises the visual appeal but also contributes to an uninviting environment.

Site Babur Mosque

The site condition at the STC Mountain Top, where the historic Babur Mosque is located, presents several challenges. The frontal space, which serves as the main gathering area for visitors, is in poor condition. The flooring is uneven, likely due to natural topography of the mountain, causing difficulties in movement and posing potential safety hazards. Additionally, the existing sitting spaces are inadequate and poorly designed, failing to provide comfortable and accessible areas for rest and contemplation.

Fire Consequences: Scorched vegetation and trees exhibiting signs of combustion. Incinerated zones in close proximity to human habitations.


Trail View

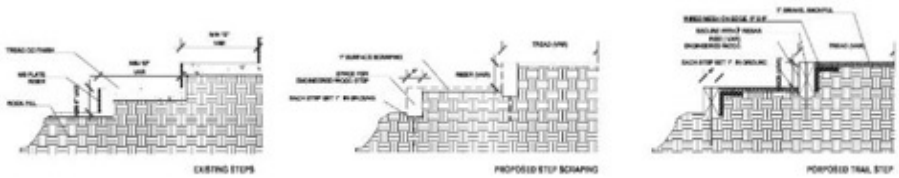

Trail Condition


Uneven Flooring at Babur Mosque


Observation Deck at Babur Mosque

Figure 4. Current situation public trail

Design solutions	
Location: Sulaiman Too Mountain Trail	
Length	1100 meters.
Material	Engineered Wood Steps, Gravel Backfill, Handrail Retrofit, Engineered Wood Bench, Pattern CC Tile, Kerb Stone.
Design Solutions	• Modernization of the trail, installation of new railings, trail steps • Installation of park benches, information signs, information plaques, public maps (QR/Bar Code system and systematic stories), rest areas, safety signs for children, signs for disabled people, garbage containers along the trail. In line with the Design Concept Report, signs and information materials will incorporate universal design solutions, including Braille markings, tactile elements, accessible placement height, and high-contrast large print to support visitors with visual or physical impairments. Rest areas and observation points will also be designed in an inclusive manner to ensure accessibility for persons with disabilities. • Installation of curb blocks and street lights. • Painting of railings and curbing • Paving floor and walkways

Description	**Trail Assessment:** **Existing Trail Condition:** The current state of the trail exhibits fluctuations in conditions, featuring concrete surfaces. Some parts of the trail present slippery surfaces, posing a potential hazard. **Trail Tread Surface Proposed:** Foot trail will be resurfaced with only a minimum of material. Leaf litter & surface soil will be removed by 50mm (1"). Use of aesthetic, sustainable & durable Material including engineered wood step & Gravel backfill. The debris from removal of 50mm (1") surface can be used as gravel backfill. (Formula for debris calculation L x B x H of trail step while considering L= width of step, B = depth of step, H = height of step for removal = 0.16' for 50mm removal & H=0.083 for 25mm removal) In areas with heightened sensitivity where crossing is challenging and perilous, the consultant recommends implementing a boardwalk composed of engineered wood planks. 
Design Summary	**Design Solution Option 1:** The design of the mountain trail seamlessly incorporates conservation, education, and recreation elements, aiming to provide visitors with a sustainable and enriching experience while safeguarding the cultural and natural heritage of the area. Infrastructure design, including trailheads, rest areas, and signage, has been enhanced to harmonize with the heritage theme. The proposed amenities are discreet, seamlessly blending with the natural and cultural surroundings. The inclusion of accessible features, such as viewing platforms and interpretive stations, caters to a diverse range of visitors (including people with disabilities). Careful consideration has been given to balancing accessibility with heritage preservation, ensuring that the trails remain inclusive without compromising the integrity of sensitive areas. **Design Solution Option 2:** To further reduce impact and ensure the integrity of the site, the following design enhancements have been incorporated: An alternative solution to Compressed Aggregate Backfill which may introduce non-native materials to the mountain, has been identified and evaluated. The approach ensures to minimize potential disruption to the natural environment. To minimize disturbance outside the trail and promote a more seamless visitor experience, signage has been relocated onto the trail infrastructure itself. Strict zones for construction zones has been established to ensure that all materials, equipment, and personnel remain within the designated trail areas during the construction phase. **Babur Mosque** The frontal area of Babur Mosque needs to be rejuvenated. The uneven flooring will be replaced with high quality mosaic tiles that are durable, slip resistant, and suitable for outdoor use. Selection of color and pattern is done in a way that it complements the cultural and historical significance of Babur Mosque. Rejuvenating the sitting spaces into proper engineered wood benches that are more comfortable and appealing.

Design Concept	
 Existing View Trail Towards Babar Mosque	 Proposed Resting Area along the Trail
 Existing View Trail	 Proposed View of Trail
 Existing view of Babur Mosque	 Proposed View of Babur Mosque
Before	After

Figure 5. Design Solution public trail

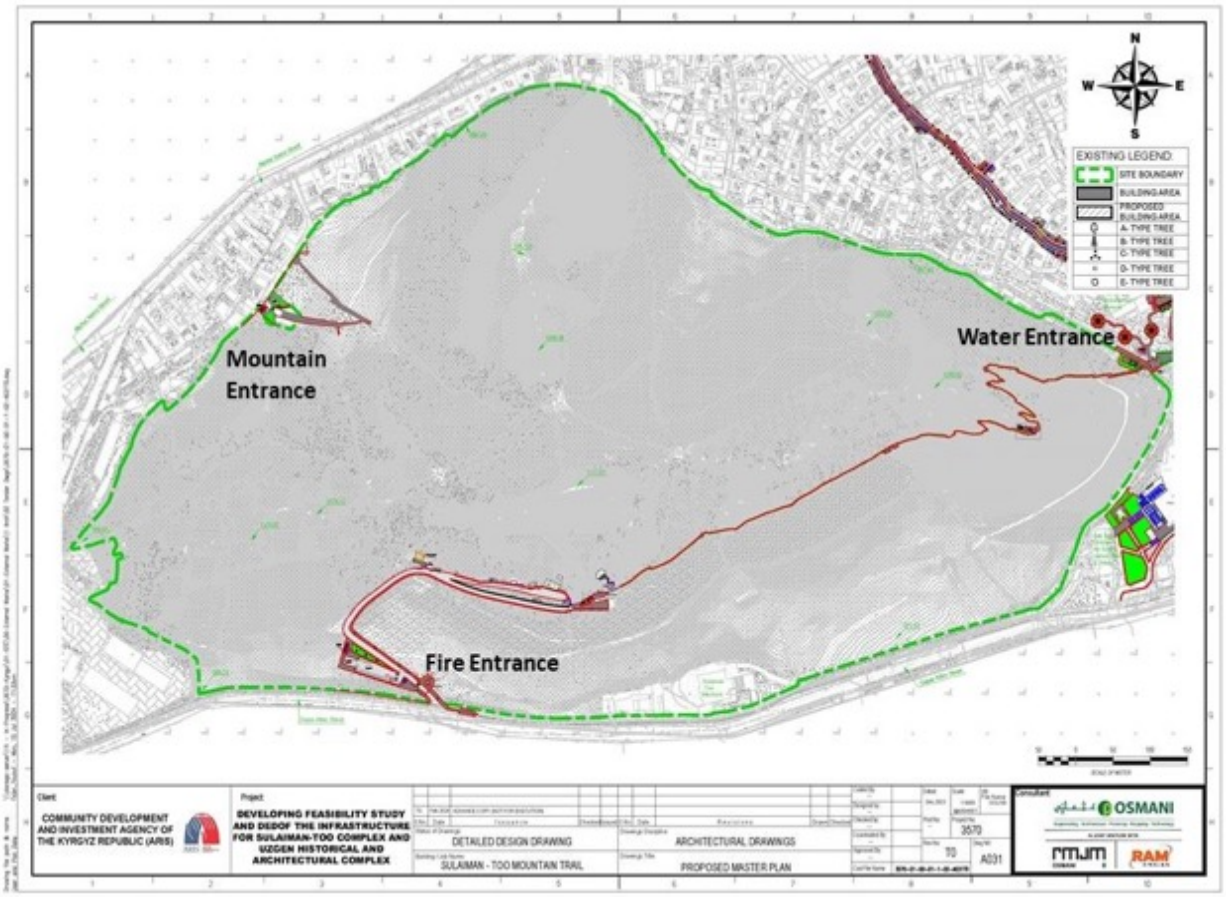


Figure 6. Access Infrastructure Facility: Water Gate, Fire Gate, North Access (Mountain Gate)

2. SITE: Water Gate, Fire Gate, North Access (Mountain Gate)

Current situation

Gateways and Boundaries: The fortifications and the material aspects of security measures appear antiquated, necessitating the implementation of more modern and user-friendly barriers that promote a positive interaction between the public and the heritage site.

Parking Ease: In the parking area, there is an absence of formal numbering, and there is a lack of designated priority spaces for individuals with special needs. Furthermore, there is a notable absence of a buffer or protective alignment separating the natural elements from the hardscape of the parking facilities.

Public Spaces: Insufficient provision of seating/rest areas coupled with limited opportunities for communal engagement for senior citizens, children, and families.

Signage & Public Information: The absence of adequate signage and interpretation for disseminating public information has been identified as a notable concern. Implementation of signage is recommended to augment the overall tourism experience and to reinforce safety measures.


View from Fire Entrance


Parking at Fire entrance


Water Gate


North Access (Mountain Gate)

Figure 7. Current situation Gateways

Design solutions
Fire Gate, North Entrance, Water Gate:
• Construction of new toilet block and ticket booth • Construction of new entrance gate • Laying of paving stones • Installation of park benches, information signs, informational signs, public maps (QR/Bar Code system and systematic stories), rest areas, child safety signs, handicapped signs, trash cans and street lights • Asphalt paving within the current territory of the complex, limited to existing internal visitor paths and circulation areas. • Building a new wooden shelter for the cafe • Painting of curb blocks • Placement of a kiosk • Tree planting and lawn installation

Design Solution	
Location: Sulaiman Too Mountain - Fire Gate	
Area	1000 sqm. (Approx.)
Material	Lamp Posts, wooden slate, Boundary Wall, Cobbled Tiles, Stone Bollards, Stone (Silver travertine)
Description	The entrances are improved to attract tourists and visitors. To infuse the mountain with a historical ambiance, the consultant recommends the installation of a distinctive arch made of "Slate" to seamlessly integrate with the mountain's historical environment.

Design Summary	**Design Solution Option 1:** The Sulaiman-Too Mountain, a repository of historical narratives spanning centuries, has borne witness to the unfolding tapestry of time. In pursuit of elevating the visitor experience and emphasizing the cultural significance inherent in this historical landmark, a respectful enhancement initiative has been embarked upon at the mountain's entrance. This initiative, undertaken with the dual purpose of enhancing accessibility and establishing an enduring initial impression befitting the timeless grandeur of Sulaiman-Too Mountain, reflects a conscientious approach to heritage preservation. The collaboration of architects and environmental experts has resulted in the conception of an entrance seamlessly harmonizing with the natural environs of the mountain. The deliberate utilization of locally sourced materials, coupled with the adherence to sustainable construction practices, stands as a testament to the commitment to minimize environmental impact. This conscientious effort ensures the preservation of the delicate equilibrium between heritage conservation imperatives and ecological considerations. **Design Solution Option 2:** Alternative design: a gate without an arch To achieve a more seamless integration with the surrounding environment, a streamlined gate design without an arch has been proposed. This approach minimizes the visual impact of the gate, allowing the natural beauty of the landscape to take center stage.

Design concept

Fire Gate Existing Outer view

Fire gates Proposed appearance

Before	After

Figure 8. Design Concept Gateways

Design Solution	
Location: Sulaiman Too Mountain - Fire Gate Parking	
Area	2940 sqm. (Approx.)
Material	Lamp Posts, Cobbled Tiles walkways, Stone Bench, Waste Segregation Bins, stone pitched wall.
Description	The consultant enhances the current parking area in the proposed design, restricting vehicular circulation to this point. Instead of curb blocks, a pitched wall is suggested, and designated parking aisles, including a separate area for buses, are designed to manage public circulation during peak seasons. Additional street furniture, such as lamp posts and signage, is incorporated, with these interventions having no impact on heritage, as the existing allocated parking space is being upgraded.
Design Summary	**Design Solution Option 1:** The enhancement of the parking infrastructure is driven by a commitment to achieving a harmonious balance between functionality and aesthetics. Collaborating with architectural experts, the design of parking spaces has been crafted to seamlessly blend with the mountain's landscape, minimizing visual impact while prioritizing convenience. The incorporation of natural materials and landscaping techniques ensures that the parking facilities integrate smoothly with the heritage surroundings, establishing a welcoming and unobtrusive entry point. The strategic design of the parking facilities prioritizes minimizing disruption to the local ecosystem. Implementation of permeable surfaces, green buffer zones, and measures to preserve trees safeguard the flora and fauna surrounding the parking area. The outcome is an upgraded parking facility that not only serves its practical purpose but also contributes positively to the overall ecological well-being of the site. The upgraded parking facilities are specifically designed to enhance the visitor experience from the moment they arrive at Sulaiman-Too Mountain. Meticulously crafted signage and wayfinding elements guide guests effortlessly to designated parking areas, eliminating confusion and promoting a sense of order. Additionally, amenities such as rest areas, information kiosks, and shaded seating ensure that the parking experience becomes a positive and informative prelude to the heritage journey that awaits. **Design Solution Option 2:** To further minimize the environmental and visual impacts of these enhancements, the following alternative design elements are considered: • In place of traditional lamp posts, ground-level or low-height lighting solutions are suggested. This approach will provide necessary illumination while minimizing disruption to the landscape's visual continuity. • Alternative materials or designs for the pitched walls, such as city parking barriers. • Signage that can be relocated.

Design concept
 Fire Gate Existing Parking View


 Fire gate entrance. Existing Parking lot and toilet	 Fire gate entrance. Proposed Parking lot and toilet
Before	After

Figure 9. Design Concept Parking

Design concept	
Location: Sulaiman Too Mountain - Water gate	
	
Eastern entrance to STC/Water Gate	Design solution

Figure 10. Existing view and Design Solution Water Gate

In the current context, the northern access or mountain gate is positioned in close proximity to the graveyard. This constitutes a predominantly natural trail guiding towards the Bronze Age, with the cave museum situated on the left side.

Design concept	
Location: Sulaiman Too Mountain - Access to Sulaiman Too from North	
	
Northern entrance to STC	Design solution

Figure 11. Access to Sulaiman Too from North and Design solution

3. SITE: Sulaiman Too Cave Museum

In 1978, on the incline of Sulaiman-Too Mountain, a unique building emerged, ingeniously utilizing a cave as its foundational structure. This architectural gem, credited to the visionary K. Nazarov, originally conceived as a modernist-style restaurant, underwent a transformative shift following a governmental decision. Instead of catering to culinary delights, the building metamorphosed into a historical and ethnographic museum, standing as a testament to adaptability in the face of evolving purposes.

For many, the museum is regarded as a subterranean marvel, encompassing two distinct levels. The first level introduces visitors to a circular layout within the central cave, complemented by surrounding rooms that unveil various facets of history and culture. An intriguing feature is the small tunnel discreetly navigating through one of these chambers, creating a seamless connection to the second level. On the upper tier, a panoramic window encases the central cave, treating patrons to breathtaking vistas of the southeast and southwest sections of Osh city, thus turning the museum experience into an immersive journey.

The fusion of modernist design, historical narrative, and natural surroundings creates a harmonious blend, offering visitors an enriching and captivating exploration into the cultural tapestry of Sulaiman-Too Mountain and the city of Osh. Therefore, any renewal project should carefully balance the need for structural improvements with the preservation of the museum's unique identity and its value to the community and visitors alike.

Figure 12. Front View of Lower & Upper Podium

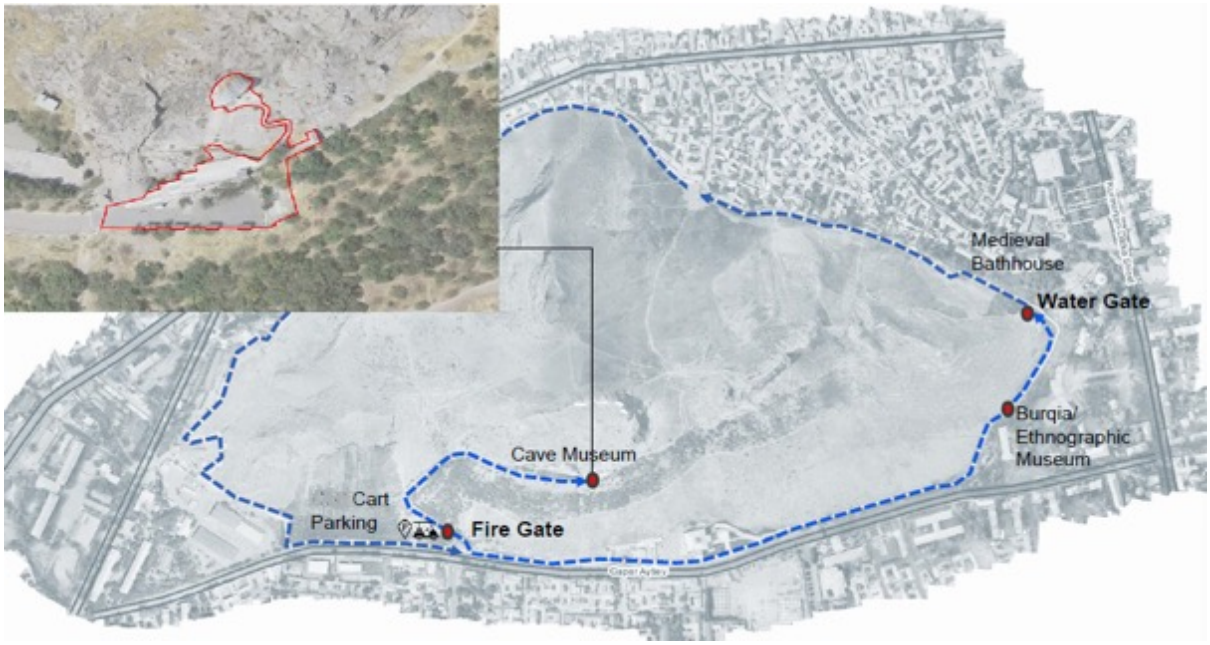


Figure 13. Location of the Cave Museum

Current situation

The existing engineering networks include electricity, water supply, and sewage, but they are not operational due to improper installation of pipes. There is no heating system, and fire extinguishers are currently being used for fire protection. The electrical wiring needs to be replaced, and ventilation and smoke removal systems are required.

The seating areas have shades, but they need improvement to enhance both aesthetics and sustainability. The open space requires redesign and activation to make it more suitable for public use. The grand staircase, leading to the Lower and Upper Podiums of the Cave Museum, needs renovation.

It is recommended to install proper pipes for water supply and sewage, introduce heating, replace fire extinguishers with a sprinkler system, and install ventilation and smoke removal systems. The electrical wiring should be updated, and the seating areas and open spaces should be upgraded. The grand staircase should be renovated to improve access.

Cave Museum Front View

Cave Museum Entrance

Figure 14. Current situation Cave Museum Entrance

Accessibility: Cave is difficult to access, particularly for individual with mobility issues.

Safety Concerns: There are low ceiling and potential for rock falling.

Irregularly shaped spaces for display of artifacts and public circulation.

Poor interior Display negatively impact visitor experience.

Cave Museum Interior

Cave Museum Interior

Figure 15. Current situation Cave Museum Interior

Design solutions	
Location: Sulaiman Too – Cave Museum	
Area	555 Sqm. (Approx.)
Material	Lamp post, Handrail Retrofit, Stone step, Stone Bench, Engineered Wood Shed, Waste Segregation Bins
Description	The consultant recommends enhancing the external areas of the Cave Museum to improve user experience. The proposed enhancements include upgrading the floor from asphalt to pavers and replacing existing steel shades with engineered wood sheds to provide a more aesthetic look that blends with the environment. These upgrades are minimal and less invasive, ensuring they do not adversely impact the heritage. Plans also include the installation of lifts at the main entrance, which will improve access for people with reduced mobility. Additionally, universal design solutions will be incorporated, including Braille signage, tactile elements, accessible placement heights and large, high-contrast lettering to support visitors with visual impairments or physical limitations. Thus, the 'main' attraction of the entire complex will now be accessible to everyone
Design Summary	**Design Solution Option 1:** The planned enhancements for the front podium of the Cave Museum are conceived to achieve a harmonious blend of natural beauty, aesthetic appeal, and cultural richness. Emphasizing safety, accessibility, and sustainability, the upgraded entrance is poised to elevate the visitor experience significantly, underscoring a dedication to responsible tourism and environmental stewardship. The redesign of the lower-level entrance aims to transfer the front podium into a captivating introduction to the marvels concealed within the cave, ensuring a lasting impression for all who embark on this cultural journey. **Design Solution Option 2:** To further minimize the environmental and visual impacts of these enhancements, the following alternative design elements are considered: • In place of traditional lamp posts, ground-level or low-height lighting solutions are suggested. This approach will provide necessary illumination while minimizing disruption to the landscape's visual continuity. • Alternative designs for the Engineered Wood Shed.

Design concept

Cave Museum External Existing Lower Podium View

Cave Museum External Proposed Lower Podium View


Existing Upper terrace of the Cave Museum


Proposed Upper terrace of the Cave Museum

Figure 16. Design Concept Cave Museum External

Design solution	
Location: Sulaiman Too – Cave Museum Internal	
Area	770 sqm
Material	Sealant waterproofing, Plaster & Paint
Description	The consultant foresees that the proposed restoration of the cave museum will positively influence the heritage. The restoration aligns with conservation principles, upholds cultural heritage values, and enhances the overall visitor experience. The use of high-quality sealant, specifically one resistant to moisture, is advised to address any cracks or gaps in the cave walls. For the Cave Museum, it is recommended to initiate a pilot project for the removal of internal plaster by a specialized contractor owing to the historical significance of the museum under the guidelines of the Ministry of Culture and the client for detailed analysis of structural stability. The museum is an invaluable repository of cultural heritage, with artifacts and exhibits of significant historical importance. A scientific structural study should be conducted to understand risks to the structural stability of the building that are potentially compromising the integrity of the exhibited items. The scope of this project would encompass the removal of internal plaster from designated areas within the museum, with a specific focus on regions identified as critical for structural assessment and preservation of historical features. A project team comprising representatives from the museum, specialized contractors, and structural stability consultants will be formed to oversee the planning and execution phases. The internal plaster removal process will be conducted using specialized techniques that prioritize the preservation of historical features and artifacts. Areas for removal will be carefully selected in consultation with the museum's curatorial staff and structural stability consultants. The structural stability analysis will involve advanced techniques and tools to assess the impact of plaster removal on the building's integrity. Upon completion of the project, a comprehensive evaluation will be conducted to assess the outcomes against the predefined objectives. Lessons learned will be documented, and a final report summarizing the project's achievements and recommendations for future initiatives will be prepared.
Design Summary	The Cave Museum presents a complex challenge primarily due to the natural terrain, which is susceptible to climatic and geographic changes. As an exciting landmark and attraction site, the Consultants have proposed restoration and curatorial upgrading solutions based on visual evidence and management experiences. The structural integrity of the museum is vulnerable to seismic activity, natural deterioration, and environmental degradation. Hence, any changes and technical solutions suggested by experts do not assure a permanent resolution. It is imperative for the internal management of the museum to incorporate a vigilant 'Maintain & Maintenance Strategy' as an integral component of their future post-intervention solutions within the infrastructural system.

Design concept	
	
Cave Museum Existing Lower Floor Interior	**Cave Museum Proposed Lower Floor Interior**
	
Design solutions to improve lighting on the upper level and exposition design	
Before	After

Figure 17. Design Concept Cave Museum Internal

4.3.2 Cluster 1.2

1. **Rehabilitation & Public Space Intervention:** Ethnographic & Archeological Museum
2. **Landscape Infrastructure Upgrade:** Frontal Square Mausoleum Burkiya

1. SITE: Ethnographic & Archeological Museum

The Ethnographic Archaeological Museum is currently housed in a modern building constructed in the early 2000s to commemorate the 3,000th anniversary of the city of Osh. The modern museum building offers ample space to display historical artifacts, which number approximately 35,000 items. The left side of the building includes exhibition halls and rooms with display stands, displaying a diverse range of historical antiques and priceless artifacts. On the opposite side, in the right wing, are the administrative offices.

Figure 18. Location of the Cluster 1.2: Ethnographic & Archeological Museum (1), Frontal Square Mausoleum Burkiya (2)

Among the prized exhibits in the main complex are the noteworthy glazed pottery artifacts from the Bronze Age, offering tangible evidence of the ancient settlement on Osh's land. Beyond pottery, the museum's extensive collection includes furniture, clothing, jewelry, and dedicated sections highlighting the region's rich local flora and fauna. A particular attraction for visitors is the museum's mineral collection, contributing to the overall appeal of this cultural and historical institution.

The museum is also recognized as the Historical and Ethnographic Museum of Kurmanjan Datka. Situated at the base of Sulaiman-Too, adjacent to the Archaeological Museum, is the Three-Story Yurt, one of the tallest yurts globally. This unique structure houses a vast array of cultural items that vividly demonstrate the history and nomadic traditions of the region. Inside the canvas interior, visitors are immersed in the rich cultural heritage showcased through various artifacts, providing a comprehensive understanding of the historical and ethnographic aspects of the area.

Current situation

Visitors enter the facility through an entrance area featuring three circular booths: two are used as souvenir shops, and the third serves as a ticket counter. There is a proposal to remove the security room in this area and install a cloakroom behind it. Additional improvements to the entrance have been suggested, such as removing the glass enclosure around the gate.

On the ground floor, the layout is organized with the administration block on the right side and the canteen and storage areas on the left. The ground floor also includes a conference room that the institution plans to convert into a photo lab with digitization capabilities. The restrooms on this level are spacious but may benefit from aesthetic upgrades. In the left wing of the ground floor, there is a large hall that requires additional storage solutions. The last room in this wing could potentially be connected to the rear courtyard if activated, and there is an alternative staircase to the main one located in the left wing.

The first floor, accessible by the main staircase, offers scenic views through its windows, including glimpses of Burqiya. However, the false ceilings throughout this floor are outdated and in need of renovation. Watermarks on the main dome indicate roof issues that require repair, and the dome itself is decorated with captivating images of the universe and zodiac signs. In the right wing of the first floor, behind the main exhibition hall, there are toilet facilities and administrative rooms that could potentially be converted into an artist residency or a research studio. This idea has attracted interest from the museum director, whose office is strategically positioned to overlook the main entrance area.

The exterior front and back yard spaces show signs of dormancy and need revitalization. Overall, the building requires substantial refurbishment, including roof leak repairs, as well as upgrades to interior design and lighting systems to meet contemporary standards.

Ethnographic & Archeological Museum Front yard View

Ethnographic & Archeological Museum Backyard View

Figure 19. Current situation Ethnographic & Archeological Museum

Design Solutions
• Alteration of building exterior to match regional development. • Landscaping • Installation of informational signs • These will also include universal design solutions, such as Braille labelling, tactile elements, accessible installation heights and large, high-contrast fonts, to support visitors with visual impairments or physical disabilities.

Design solution	
Location: Ethnographic & Archeological Museum façade & front yard	
Area	4500 sqm.
Material	Lamp Posts, Cobbled Tiles, cc planters, Wooden Bench, Waste Segregation Bins.
Description	The consultant recommends upgrading the building's facade to improve its aesthetic appeal. Enhancements to the front and back yards are proposed to elevate the user experience, incorporating additional green spaces in the form of steps, introducing native trees and planters. Integration of street elements is suggested to ease navigation for visitors and tourists. These proposed interventions involve the replacement of existing elements.

Design Summary	**Design Solution Option 1:** Throughout the rejuvenation process, the consultant has converted the front yard of a building into a lively, inviting, and functional space for residents and visitors alike. This transformation incorporates sustainable design practices, including the use of eco-friendly materials and energy-efficient lighting. In order to enhance safety and aesthetics both during the day and night, an effective lighting design has been implemented. The introduction of water features, such as fountains, contributes to creating a sense of tranquility and visual interest. Thoughtful selection of durable and aesthetically pleasing pavement materials has been made, aligning with the building's design and ensuring that surfaces are slip-resistant and suitable for diverse weather conditions. **Design Solution Option 2:** To minimize the impact on the visual connection with the Mountain, following alternative design elements for the Museum surrounding areas are considered: • Minimalistic landscaping approach in the front and back yards, focusing on native vegetation and low-maintenance greenery that require minimal water and upkeep. • Preservation of open spaces and avoiding excessive planters or features that detract from the mountain views.

Design Concept	
 Ethnographic & Archeological Museum Existing Front yard View	 Ethnographic & Archeological Museum Proposed Front Yard View
Before	After

Figure 20. Design Concept Ethnographic & Archeological Museum (Fron Yard)

Design Solution	
Location: Ethnographic & Archeological Museum - Backyard	
Area	1600 sqm.
Material	Lamp Posts, Cobbled Tiles, Wooden Bench, Waste Segregation Bins, fountain, moveable display board
Description	Design Solution Option 1: Back Yard The consultant revitalizes the backyard by recommending various activities such as seating areas, an arts display zone, and a water fountain.

Design Summary	Embark on a transformative journey aimed at revitalizing dormant spaces into vibrant hubs of activity, creativity, and community engagement. This revitalization initiative incorporates the installation of public art and mural walls strategically positioned to create points of interest and engage visitors. The integration of public art, murals, and cultural elements not only elevates the aesthetic appeal of the space but also fosters a profound sense of identity and pride within the community. Furthermore, extensive landscaping elements, including plants, trees, and flowers, have been thoughtfully incorporated to infuse greenery and amplify the visual allure of the space. Additionally, water features such as fountains and reflecting pools have been seamlessly integrated, contributing to a sense of tranquility and visual interest. The rejuvenated backyard envisions outdoor spaces as dynamic studios and workspaces. Easel stations, communal work tables, and adaptable areas equipped with essential art supplies provide artists with a dynamic environment to create, collaborate, and share their artistic journey. This transformative initiative not only breathes new life into previously underutilized spaces but also cultivates a thriving community hub for artistic expression and community engagement. Design Solution Option 2: To minimize the impact on the visual connection with the Mountain and surrounding heritage sites while revitalizing the Museum's backyard, the following alternative solutions are proposed: • Low-profile landscaping features that seamlessly blend with the natural surroundings will be prioritized. Native vegetation and shrubs will be chosen instead of water features like fountains, which could pose challenges in terms of access for emergency services such as firefighters. • Movable seating, modular furniture, and adaptable artistic workstations will allow for flexible use of the space throughout the year based on seasonal needs and community preferences. This approach preserves the open character of the area while enabling diverse activities. • The incorporation of interactive art installations or temporary exhibitions will encourage visitor participation in creative activities without permanent changes to the landscape. Low-profile fixtures and warm LED lighting will illuminate pathways and gathering areas while maintaining the nighttime ambiance and avoiding excessive brightness.

Design Concept	
 Ethnographic & Archeological Musuem Existing Backyard View	 Ethnographic & Archeological Museum Proposed Back Yard View
Before	After

Figure 21. Design Concept Ethnographic & Archeological Museum (Back Yard)

2. SITE: Frontal Square Mausoleum Burkiya

The "Frontal Square Mausoleum Burkiya" in Kyrgyzstan stands as a testament to the region's rich cultural heritage, showcasing remarkable architecture. Located in a frontal square, the mausoleum holds historical and symbolic significance, reflecting the traditional architectural style of the region. Exquisite craftsmanship and intricate detailing, including ornate carvings and vibrant colors, contribute to the grandeur and reverence of the structure. Its strategic frontal square location provides a captivating and easily accessible focal point for visitors.

The architectural concepts of the Fergana School of Architecture and Construction are apparent in the construction of the Mausoleum Burkiya, believed to have taken place between the 18th and 19th centuries. Asaf ibn Burkiya, a distinguished companion of King Sulaiman, expressed a wish to be interred at the base of the Sulaiman-Too Mountain, leading to the association of the tomb with his

name. The construction of a building to enshrine his final resting place ensued, marked by a history characterized by cycles of destruction and reconstruction. The mausoleum has undergone multiple phases of construction and repair throughout its extensive and illustrious existence.

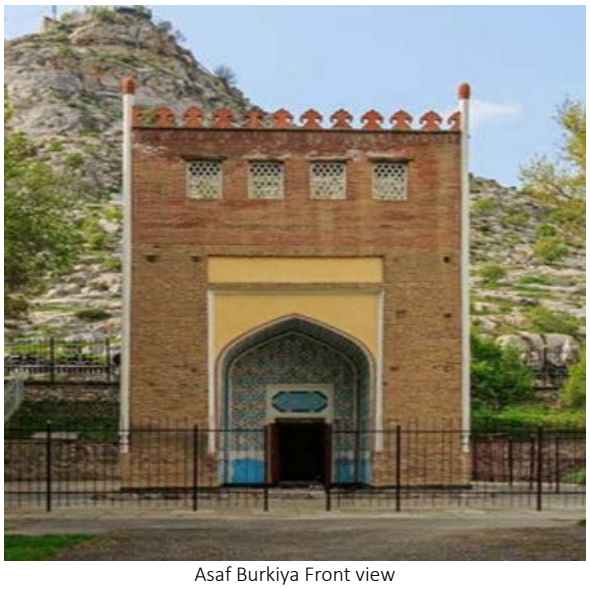
Esteemed as a mazaar by the local Muslim community, this sacred site has historically relied on generous contributions from affluent Muslims residing in Osh and Andijan. Notably, significant renovations occurred in the 19th century, evident in the mausoleum's masonry, with the bricks bearing the stamps of craftsmen from that era. Between 1980 and 1982, in-depth scientific studies of the mausoleum were conducted, leading to the development of a meticulous restoration plan executed by specialized scientific and restoration production workshops. The tomb underwent meticulous restoration efforts, preserving its original architectural elements. Significantly, during this process, the main portal adorned with intricate panjara latticework and exquisite ceramic designs was meticulously restored to its former grandeur.

In 2004, the Asaf-ibn-Burkhiya Mausoleum gained national protective status, emphasizing the need for ongoing preservation efforts. Subsequent funding has been allocated to support visitor protection, conservation activities, maintenance, monitoring, and educational programs associated with the mausoleum. These efforts ensure the continued preservation and accessibility of this cultural treasure for future generations.

Current situation

The Burkiya Mausoleum is located near the Art School, with views of the Baburi mosque. On one side of the mausoleum is the Art School, while a restaurant building on the opposite side may be removed to create a park in front of the mausoleum. Behind it lies the Ethnographic & Archaeological Museum, and a triangular garden occupies the center of the street leading to the site. A secondary entrance to the Sulaiman-Too Complex (STC) behind the mausoleum enhances accessibility, and the mausoleum itself stands on a well-maintained platform.

However, accessibility improvements are needed, as an obstacle on the street requires removal, and the Burkiya Mausoleum Park needs infrastructure upgrades. Currently, the site lacks visibility from the Ethnographic & Archaeological Museum, the front square of Asaf Burkiya lacks landscaping, and exposed pipelines require enhancement.



Asaf Burkiya Front view

Asaf Burkiya Front yard View

Figure 22. Current situation Asaf Burkiya

Design Solution	
Location: Frontal Square of Asaf Burkiya Mausoleum	
Area	3020 sqm. (Approx.)
Material	Lamp Posts, Cobbled Tiles, Stone Bench, Waste Segregation Bins.
Description	The consultant recommends minimal interventions in the vicinity of the heritage building, aiming to enhance the surroundings of the Mausoleum and Frontal Square. The proposal involves the incorporation of native and drought-resistant plants to enhance visual appeal and contribute to the ecological conditions and sustainability of the site. Additionally, well-planned lighting is suggested to highlight the walkway toward the heritage site without compromising its integrity. Дополнительно будут включать универсальные решения, включая маркировку Брайля, тактильные элементы, доступную высоту размещения и крупный контрастный шрифт для поддержки посетителей с нарушениями зрения или физическими ограничениями.
Design Summary	**Design Solution Option 1:** The upgrade initiative aims to achieve a seamless integration of the old and the new. Through collaboration with architects and environmental experts, classical design elements such as lamp posts and benches have been thoughtfully integrated to complement the historical significance of the site. This approach ensures a cohesive and timeless aesthetic. In addition, the upgrade embraces sustainable landscaping practices, introducing green spaces that not only enhance the overall visual appeal but also contribute to environmental conservation. The use of native plants, water-efficient irrigation, and eco-friendly materials exemplifies a commitment to creating a sustainable and visually pleasing environment. To enhance the visitor experience, interpretive signage will be strategically placed, offering historical context, anecdotes, and educational insights. This thoughtful addition aims to provide visitors with a deeper understanding of the site, enriching their overall engagement and appreciation of its historical significance. **Design Solution Option 2:** Following the removal of the restaurant structure, alternative solutions have been explored for the layout of the Frontal Square and pathways leading to the Mausoleum. These solutions prioritize maintaining the site's integrity and ensuring visual harmony with the surrounding mountain environment. Potential options include: • Redesigning the layout to incorporate landscaped green spaces will create a more aesthetically pleasing and serene approach to the Mausoleum. • Pedestrian-friendly pathways will improve visitor flow. • Seating areas will allow visitors to rest and reflect while maintaining a natural aesthetic that blends seamlessly with the surroundings. Low-profile fixtures and warm LED lighting will illuminate the pathways and gathering areas, ensuring safety and functionality without compromising the nighttime ambiance. This approach avoids excessive brightness that might disrupt the tranquil atmosphere.

Design concept	
 Asaf Burkiya Mausoleum Existing View from Front	 Asaf Burkiya Mausoleum Proposed View from Front
Before	After

Figure 23. Design Concept Asaf Burkiya

4.4. Cluster 2: Uzgen Historical and Architectural Complex

1. **Rehabilitation & Public Space Intervention:** Uzgen Historical & Architectural Complex through Landscape Infrastructural Upgrade and Access Infrastructure Facility
2. **Museum Development and Curatorial Development:** Development of New Museum of Uzgen

Figure 24. UHAC Proposed Master Plan

1. SITE: Uzgen Historical & Architectural Complex

Uzgen Historical and Architectural Complex stands as one of Kyrgyzstan's most noteworthy historical and architectural treasures. It emerged between the 7th and 9th centuries on the rugged landscape adjacent to the Kara-Darya River, evolving into a vital Silk Road station that significantly contributed to its growth. During the 10th to 13th centuries, Uzgen transformed into a prominent trading hub, fortified with robust defenses, and served as the southern capital of the Karakhanid state.

During the 9th to the 12th century, the central area of Uzgen witnessed the construction of a remarkable ensemble of architectural structures, including the Uzgen Tower, a prominent minaret, and three mausoleums—known as the Northern, Middle, and Southern Mausoleums—all crafted in the distinctive architectural style of the Turkic Karakhanid dynasty. Despite their construction spanning different epochs, these mausoleums form a cohesive linear arrangement, standing as enduring testaments to the Karakhanid legacy.

Designated as an integral component of the historical and cultural museum reserve established in 1996, the historical landmarks of Uzgen receive an additional layer of preservation and value. This recognition solidifies their status as venerable buildings contributing significantly to Kyrgyzstan's rich historical and cultural heritage.

Existing Condition

Within the current context of the Uzgen Historical & Architectural Complex site, the following observations and recommendations are noted:

- The road connecting the new museum to Uzgen spans a length of 20 meters. Underground parking facilities are available on-site, and the potential addition of a viewing deck is suggested to enhance the panoramic experience of the surroundings.
- The corner housing access to the underground parking facility could be repurposed into a drop-off location for the transportation of storage materials. Considering the seismic activity and other climate change factors in Uzgen, transforming this corner into a public zone, perhaps a roundabout, is proposed as a more suitable alternative to an underground parking facility.
- The area surrounding the minaret, recognized as an archaeological site, presents an opportunity for the construction of a viewing deck. It is crucial to ensure that the deck is positioned outside the boundary line of the archaeological site, emphasizing a less invasive design. Simultaneously, the pedestrian bridge on the site is slated for demolition.
- The strategic planning and planting of willow and chestnut trees need to be carefully considered to enhance the aesthetic appeal of the site.
- The redesign of ticket booths at the site is proposed to align more seamlessly with the overall aesthetic and character of the Uzgen Historical & Architectural Complex.

Development Implementation

The archeoiligcal site, positioned between two heritage sites Uzgen minaret and medieval mausoeum of XII Century at a respecful distance, remains uneffected by the proximity. The planned construction of a new museum building across a 30meter buffer zone, Created by an existing road, ensures minimal impact on the archeoligcal site. the road acts as a natural barrier, mitigating any vibrations or disturbances from the construction activities.

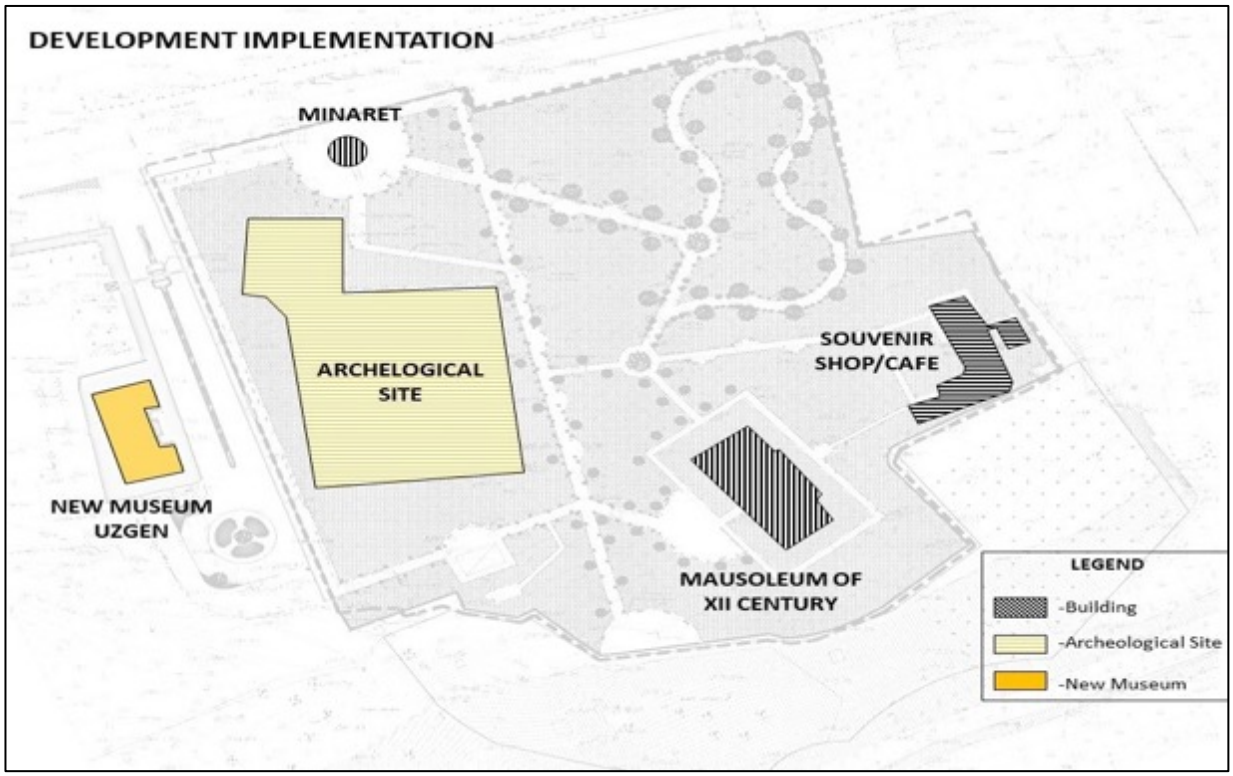


Figure 25. UHAC Development Implementation

Context Analysis

The constrcution of a new museum building near the hertiage and archeological sites offers significant positive benefits by enhancing public engagement and appreciation of the area's historical and cultural value. The museum will serve as an educational hub, attracting visitors and scholatrs, thereby increasing awareness and support for the preservation of theses sites. Strategically situated across a 30-meter buffer zone, the museum will help manage and divert piblic circulation, reducing foot traffic and potential wear on archeological site and heritage sites. By providing a centralized location for visitors, the museum will minimize direct interaction with the sensitive areas, ensuring their protection while still making their history and significane accessable to public through curated exhibits and guide tours.

The proposed constructing a new Museum Building at a distance of 30 meter from archeoligcal site will not adversely affect the site. The new museum will be constructed on state-owned land and will not require any land acquisition or involuntary resettlement. The land plot for the UHAC belongs to the state and does not affect private areas. The certificates on the right to perpetual use of a land plot was issued based on the Government Resolutions dated June 26, 2004 No. 471 for the park UHAC - land plot size 2,76 ha.

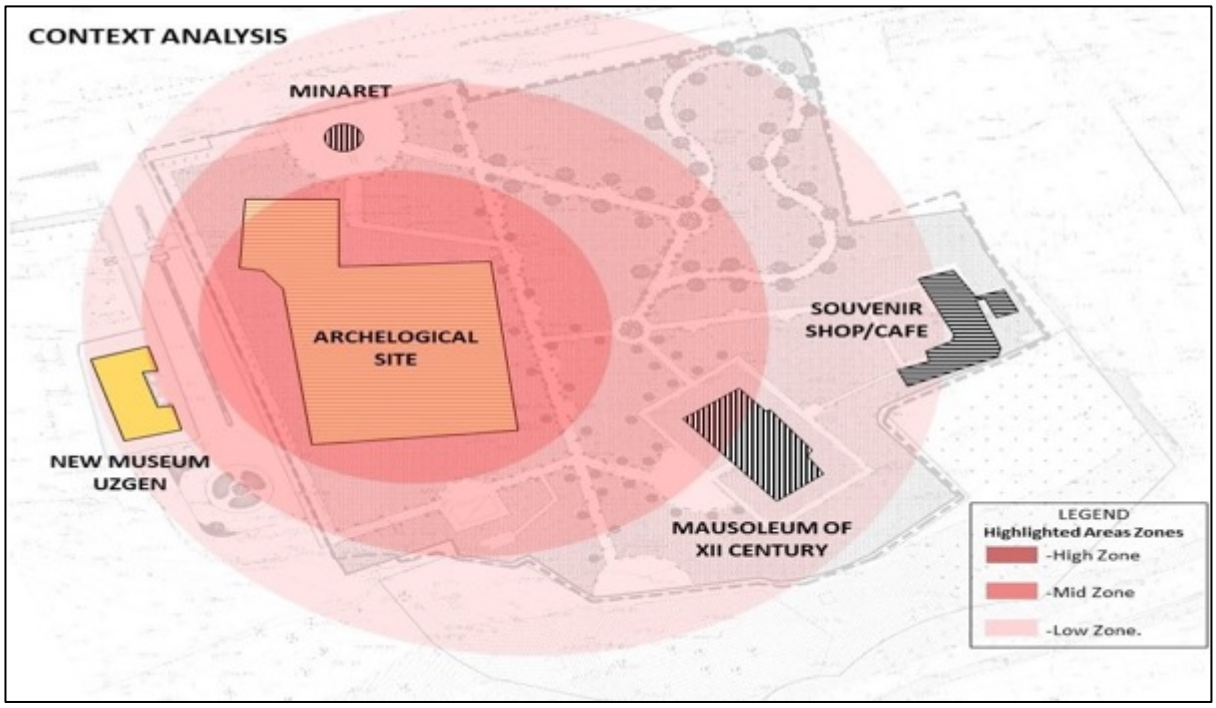


Figure 26. UHAC Context Analysis

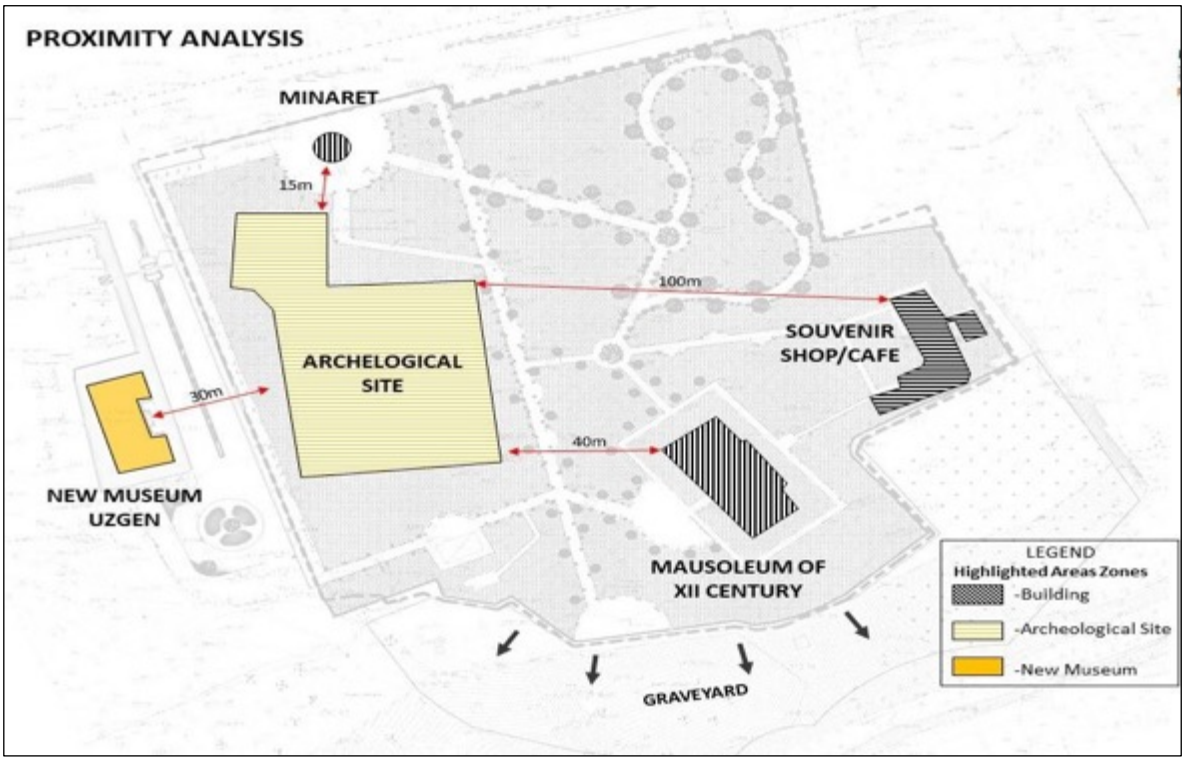


Figure 27. UHAC Proximity Analysis

Current situation Uzgen Historical & Architectural Complex Entrance

Near the proposed complex stands a large pedestrian bridge whose architectural style does not conform to local traditions; it currently serves as the main entrance to the site. Its design, however, does not harmonise with the historical and cultural character of the Uzgen complex and may require review or modification to ensure aesthetic compatibility with the heritage.

Furthermore, the presence of an existing basement on the site designated for the construction of the new museum requires its careful integration into the design of the new museum building. This integration must ensure structural stability, functional efficiency and consistency with the overall architectural concept of the complex.


UHAC View from Back Entrance


UHAC View from Front

Figure 28. Current situation UHAC Back Entrance

Current situation_Uzgen Historical & Architectural Complex

UHAC

The Uzgen Historical & Architectural Complex necessitates the implementation of a comprehensive management and guide training initiative, alongside localized cultural and historical education programs tailored for both tourism stakeholders and local community members.

Furthermore, critical infrastructure deficiencies, including the absence of plumbing, sewerage, and heating facilities, pose challenges. Fire safety measures rely on external fire shields, warranting immediate attention. Urgent repair and restoration efforts are imperative, coupled with landscaping and landscape design interventions to enhance the overall appeal and sustainability of the complex

Medieval Mausoleum of XII Century

The enhancement of the protective enclosure of the structure is required for improvement.

UHAC Complex Aerial View

Medieval Mousoleum of XII Century

New Museum Uzgen Site

Figure 29. Current situation Medieval Mausoleum

Design solution	
Location: Entrance to the Uzgen Museum of History and Architecture	
Area	4,300 sq m
Material	street lamps, green space, brick gate, brick and wrought-iron fence, recycling bins
Description	The consultant recommends creating a clearly defined entrance by dismantling the existing footbridge, with the aim of improving safety and restricting access for both vehicles and pedestrians. The planned gate, achieved by removing the large footbridge, should not have a negative impact on the heritage site. Additionally, a minimally invasive secondary entrance for the UHAC is proposed, constructed from brick to blend harmoniously with the complex's historical context. Furthermore, universal design solutions will be incorporated, including Braille signage, tactile elements, accessible installation heights and large, high-contrast lettering to support visitors with visual impairments or physical limitations.

Design Summary	The project aims to create an entrance area that not only preserves the authenticity of the complex but also invites visitors on a fascinating journey through time. The design draws inspiration from the site's historical significance, skilfully blending tradition with contemporary aesthetic solutions to create a truly iconic and inviting entrance. The gate's design has been carefully conceived to harmonise with the architectural style of the historic complex. The incorporation of elements from the historical era, such as arches and materials characteristic of that period, ensures the entrance area blends seamlessly into the overall atmosphere of the site.

Design solution	
 UHAC: Existing view from the rear entrance	 UHAC Proposed design for the rear entrance 
Before	After

Figure 30. UHAC Design Solution: Rear Entrance

Design solution	
Location: Uzgen Historical & Architectural Museum (UHAC)	
Area	26570 sqm. New Museum 400 sqm.
Material	Lamp Posts, cc Pavers, Wooden Bench, Waste Segregation Bins, decorative planters.
Description	In the endeavor to enhance the user experience on the site, the consultant undertakes a comprehensive upgrade and beautification initiative, encompassing various aspects: **Beautification work:** Renovation of existing walkways with CC pavers, replacement of old lamp posts with new ones, and the design of a less invasive Observation deck using CC pavers to facilitate a view of the Heritage site. Additional street furniture such as benches and trash cans has been incorporated. **Conversion of temporary Museum into Café/Souvenir shop:**

	An adaptive reuse strategy is employed, transforming the existing building into a café and souvenir shop. **Medieval Mausoleum Shed:** The proposed intervention involves the replacement of the currant shed with a PEB framed structure. **New Museum Uzgen:** The dimensions for the New Museum Uzgen are 28.17m x 14.20m. The construction approach for this new facility will employ Pre-Engineered Building (PEB) structures, offering several advantages: 1. High strength-to-weight ratio 2. Flexibility for expansion 3. Recyclable nature 4. Longer span capability 5. Greater seismic resistance compared to reinforced concrete buildings 6. Use of materials that are reusable, recyclable, and environmentally friendly.
Design Summary	**Beautification work:** The emphasis on inclusive design is paramount in ensuring that the beautification effort is accessible to everyone. Tactile paths, ramps, and sensory considerations have been incorporated to cater to individuals of all abilities, guaranteeing that the heritage site is a welcoming space for diverse audiences. In envisioning our open-air museum garden, we embark on a journey to create a sanctuary where art, history, and nature converge. **Conversion of temporary Museum into Café/Souvenir shop:** The adaptive transformation of our existing museum into a combined Souvenir Shop & Cafe holds the promise of breathing new life into the space. The Souvenir Shop will curate a collection of tasteful and culturally relevant merchandise. This transformation aims to captivate visitors with a unique blend of educational exploration, culinary delight, and curated retail experiences. **Medieval Mausoleum Shed:** The design of the protective shelter prioritizes transparency, enabling visitors to appreciate the heritage within while providing essential protection from the elements. The collaboration with heritage conservation experts and specialists ensures that the protective shelter adheres to the highest conservation standards. This commitment guarantees the preservation of the historical value of the artifacts housed within, safeguarding them for future generations. **New Museum Uzgen:** The design of our new prefab museum near the archaeological site reflects a dedication to both modern innovation and historical preservation. Through the integration of less invasive prefab materials, sustainable practices, and innovative technology, we aspire to create a museum space that not only showcases the wonders of the past but does so in a manner that respects, protects, and celebrates the archaeological treasures of its neighbors. The museum's design also includes accessibility solutions for people with disabilities. Specifically, information materials and exhibit elements will be presented using universal design principles, including large, high-contrast fonts, tactile elements, Braille markings, and digital solutions (such as QR codes or audio guides) that allow access to information in alternative formats. Specific technical solutions will be clarified during the final design documentation stage.

Design concept	
	
UHAC Complex Aerial View	Aerial View

Top view of UHAC

UHAC territory modernization project

Territory for the observation deck

Design of the observation deck

View from the observation deck Boundary Wall

Boundary Wall Design of the observation deck area

Medieval Mausoleum of XII Century

Proposed Shed

 New Museum Uzgen Site	 Proposed - New Museum Uzgen
 UHAC territory	 UHAC territory improvement project
 Access road to the new Museum and the central entrance to the UHAC territory	 Access road improvement project
Before	After

Figure 31. Design Concept UHAC

4.5. Cluster 3: Settlement of Bronze Age

Proposed archaeological site protection and visitor infrastructure

The proposed interventions include rehabilitation or replacement of the protective shelter, improvement of the existing steps, railings and viewing platform, and installation of information signs, benches, waste bins and low-impact lighting. The works are intended to protect the archaeological remains and improve safe visitor access and will be limited to the existing visitor infrastructure and previously disturbed areas.

The Bronze Age Settlement on Mount Sulaiman Too, situated on the steep southern slope of the third peak, played a pivotal role in the cultural and ideological landscape of the Chust tribes in Eastern Fergana. Central to this ancient settlement were subterranean dwellings featuring a central hearth, which served as a sacred space for worship and reflected the profound reverence of the Chust tribes for fire.

The significance of Mount Sulaiman Too as the cultural epicenter for the Chust tribes is underscored by the defensive properties of its chosen location. The settlement, covering over 2 hectares with a terrace layout, featured fifteen overlapping terraces and housed thirteen buildings, half of which were dug-out in form with framed walls and wooden roofs. The analysis of material remains, supported by radiocarbon dates, places the Sulaiman-Too settlement in the 15th to 7th century BC, aligning with the broader Chust culture that extended across the Fergana valley.

Noteworthy is the distinctiveness of the Osh settlement, set apart from other lowland sites by its mountain slope location and enriched by a wealth of painted ceramic finds. The Chust culture, evident in over 50 riverside sites, reveals a sophisticated society deeply connected to its surroundings. The settlement's architectural features and religious practices, grounded in an early manifestation of Zoroastrianism, highlight a unique blend of cultural and spiritual dimensions within the Bronze Age context. The Sulaiman-Too settlement, with its strategic placement and cultural richness, stands as a testament to the intricate interplay between geography, ideology, and human settlement during this ancient period.

Current situation Bronze Age Settlements

Observation of the site reveals the absence of a designated observation deck for optimal viewing of the ruins. The existing hard landscaping exhibits substandard quality and necessitates substantial improvements.

Additionally, the protective barrier in its current state is deemed inadequate and requires immediate upgrades to ensure optimal preservation of the ruins.

Furthermore, the implementation of enhanced interpretation methods is imperative to elevate the overall experience for users and visitors alike.

Bronze Age settlement View

Bronze Age ruins marking

Figure 32. Current situation Bronze Age settlement

Design Solution	
Location: Bronze Age Settlements	
Area	180 Sqm. (Approx.)
Material	Lamp Posts, Cobbled Tiles, Stone Tiles, Stone Bench, Engineered Wood Shed, Waste Segregation Bins.
Description	The current steel shed, accompanied by a railing that appears incongruent with the surroundings, lacks adequate protection for the heritage site and lacks a comfortable viewing deck for visitors, particularly the elderly seeking a resting place after ascending the stairs. In contrast, the proposed **Aerodynamic shed**, constructed from **engineered wood**, replaces the existing structure. This new shed seamlessly integrates with the environment, attracting tourists and visitors with its **harmonious** color. The proposed shed's lightweight nature, in contrast to the existing steel structure, ensures minimal impact on the heritage site. Additionally, the plan for an observation deck is deemed unobtrusive, given the presence of an already-existing platform (Fig-3) slated for renovation, eliminating the need for extensive construction that could potentially impact the ruins.
Design Summary	**Design Solution Option 1:** The proposed design for the heritage ruin's shed is aimed at achieving a careful equilibrium between preserving the site's historical authenticity and introducing modern elements that enhance its functionality. The design of the shed is crafted to complement the existing heritage ruin, incorporating materials, colors, and architectural elements that seamlessly harmonize with the historical surroundings. Traditional construction techniques and materials are employed to ensure a smooth transition between the old and new structures. In an effort to promote sustainability and minimize the carbon footprint of the construction, locally sourced and eco-friendly materials have been carefully selected for the project. This choice reflects a commitment to environmental responsibility and aligns with the broader goal of preserving the heritage site in a conscientious and respectful manner. **Design Solution Option 2:** To ensure minimal disruption to the archaeological site, alternative solutions have been developed that prioritize a "lighter touch" approach: • Scaling back the number, design and scale of certain design elements will be carefully considered. This includes reducing the quantity or size of walkways, lamps, observation decks, stone pavers, and benches to minimize their impact on the site while still maintaining functionality. • The design of the dynamic shed structure thoughtfully designed to integrate harmoniously with the archaeological site. This will consider not only aesthetics and structural integrity but also the paramount objective of preserving the archaeological context.

Design concept

Bronze Age Settlements Existing View of Steps

<table>
<tr>
<td> 
Bronze Age Settlements Existing Viewing Deck</td>
<td> 
Bronze Age Settlements Proposed Viewing Deck Design Solution Option 1:
 
Bronze Age Settlements Proposed Viewing Deck Design Solution Option 2:</td>
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Figure 33. Design Concept Bronze Age settlement

Figure 34. Medieval Bathhouse Master Plan

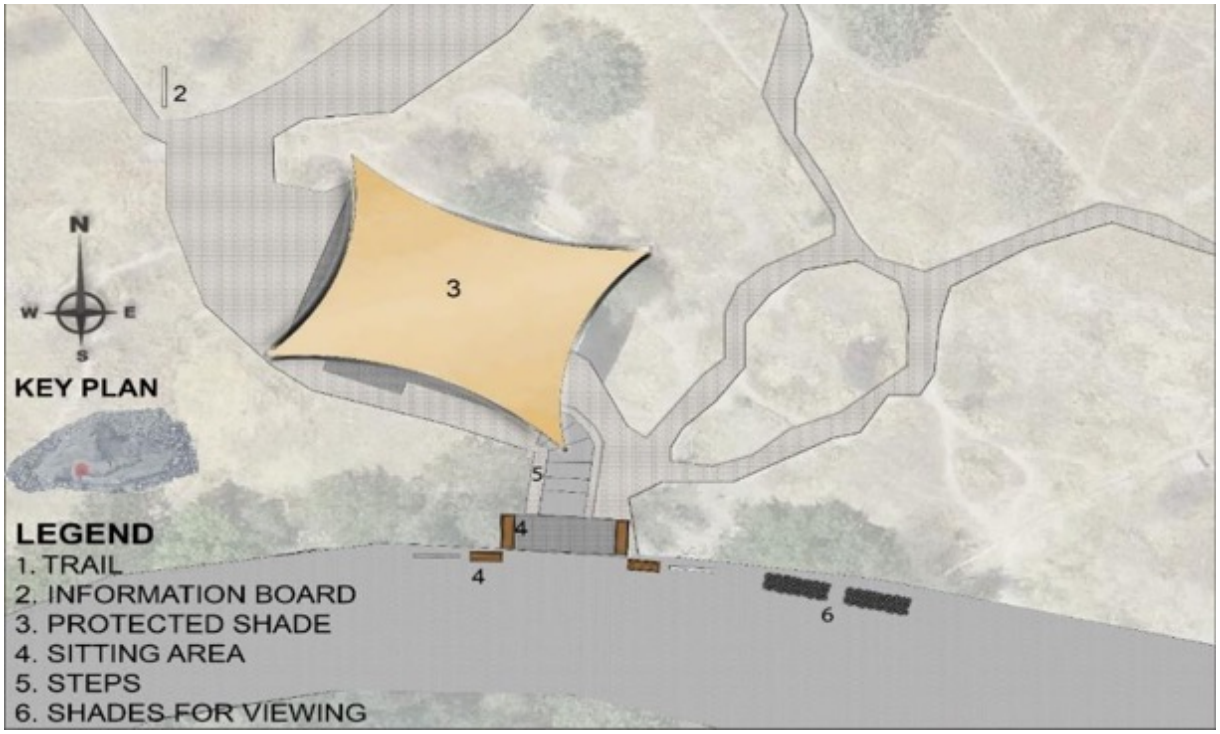


Figure 35. Bronze Age Settlements Master Plan

V. PROJECT ALTERNATIVES

This section discusses the alternatives envisioned for the proposed project. Analysis options are limited because implementation sites have already been identified and include small-scale rehabilitation and restoration activities associated with preservation, conservation, and expansion.

As a result, only two primary alternatives are highlighted:

1. "Zero Option" - no project implementation.
2. "Project Implementation" - with the proposed design.

5.1.. Zero option

The "Zero Option" alternative describes the consequences of canceling the proposed project. In this case, cultural heritage sites, some of which are on the UNESCO World Heritage List, would remain unrestored to their historic locations, resulting in the loss of cultural and historical heritage sites that are so significant not only to the country but also of global importance.

Project abandonment will also negatively affect the Regional Economic Development Project (SERP-1) in Osh Oblast and Osh City, especially sub-component 3.1 "Modernization of Osh and Uzgen Urban Centers and Tourist Routes in Osh Oblast". This project aims to improve the tourist facilities, services and infrastructure of the Sulaiman-Too complex and Uzgen historical and architectural complex to turn them into attractive destinations for local and foreign visitors, which in turn will create favorable conditions for the development of the local economy.

Lack of timely measures to preserve and improve the condition of these sites may lead to the subsequent loss of historical and cultural heritage, which would be a serious loss for the country. Thus, the No Project Alternative appears to be highly undesirable.

Although the project sites have already been selected, this section also provides an overview of alternative considerations undertaken during project preparation, including potential locations, design concepts, and technology options, to ensure that the final choices are sustainable and appropriate for the local context.

Rationale for the Selection of Project Sites, Design, and Technology Alternatives

While the decision to reconstruct the (Sulaiman-Too Complex (STC) and Uzgen Historical and Architectural Complex (UHAC) within their existing locations has already been confirmed by the Government of the Kyrgyz Republic and the World Bank, the ESIA nevertheless applies the "zero-option" principle and evaluates alternative considerations to demonstrate the soundness and sustainability of this decision.

The "without-project" scenario would result in continued deterioration of outdated facilities, limited training capacity, and inadequate living and working conditions for security personnel. This option would not meet the country's institutional and operational needs and would limit the long-term benefits for public safety and regional stability.

During preliminary planning, alternative locations for similar institutional and cultural-heritage facilities were conceptually reviewed, including existing historic compounds and administrative centers in Bishkek and Osh. However, these were found to be less suitable due to:

- restricted land availability and ownership constraints;
- lack of existing infrastructure (utilities, access roads, security perimeters);
- higher environmental sensitivity or proximity to urban residential zones; and
- higher cost and logistical complexity compared with reconstruction on the existing sites.

Beyond location, the Project also reviewed alternative design and technology options during the feasibility stage. These included:

- use of energy-efficient materials and insulation systems suitable for continental climate conditions;
- architectural solutions integrating cultural heritage elements and seismic resilience;
- modernized wastewater treatment and rainwater drainage systems; and
- modular and prefabricated construction technologies to minimize waste and disturbance during works.

The adopted solutions therefore reflect a context-appropriate, technically feasible, and environmentally sustainable approach consistent with both national requirements and the World Bank's Environmental and Social Standards (ESS1, ESS3, and ESS8).

Overall, the comparative review of potential alternatives confirmed that reconstruction of the existing STC and UHAC sites, using modern and energy-efficient technologies, represents the most viable and sustainable option from environmental, social, technical, and cultural heritage perspectives.

5.2. Implementation

Following meetings with various stakeholders and the project organization, recommendations and options for implementing solutions for the design, technical infrastructure aspects of the existing cultural heritage sites, and the as well as the construction of a new museum from prefabricated structures is considered. Under the "Project implementation" alternative, various design aspects of each site were explored:

- **Visual design:** alternatives were considered, including combining contemporary details with authentic elements, as well as solutions that minimize visual overload.
- **Materials used:** discussed material choices in light of climate change, accessibility, and other factors.
- **Technologies:** modern technologies for sewer infrastructure, energy supply, and water efficiency were considered.
- **Technical solutions:** measures for strengthening, protection, conservation and waterproofing of facilities are included.
- **Operational aspects:** parking, rest areas, signage and other elements for user convenience were discussed.

Additional I. Alternative use cases

Discussed how new and existing sites can be adapted for mixed use. The projects leave open the possibility of creating public spaces such as libraries, galleries, cafes, and meeting rooms. These changes are not likely to have a significant impact on the results of the Environmental and Social Impact Assessment (ESIA).

Additional II. Materials used

Discussions noted that the materials provided in the project's technical solutions are highly durable and resistant to moisture. They are appropriate for our climatic conditions and climate change factors. The design organization will include all necessary requirements for materials and processing to ensure durability.

Additional III. Technologies used

The safe and efficient use of water and energy was discussed. These aspects will be integrated into technical solutions for each site where necessary. Various safe and high-tech methods and techniques for site protection, structural reinforcement, methods used in slope stabilization, site stabilization.

Additional IV. Operational aspects

Considered how the operated buildings will affect conditions in the surrounding area and what mitigation measures have been incorporated into the project. Due to limited space, the number of parking spaces outside of the project sites would be limited.

The cities of Osh and Uzgen have significant potential for the development of the tourism sector. The main attractions of these destinations can offer important heritage sites of unique architecture for local and foreign tourists. However, these sites cannot provide the necessary services and infrastructure to meet the needs of visitors. Therefore, restoration and conservation of selected Sulaiman-Too Complex (STC) and Uzgen Historical and Architectural Complex (UHAC) sites and improvement of the surrounding infrastructure are of paramount importance.

In order to address the identified deficiencies, ARIS, as the assignment client, has engaged the project consultant responsible for both the environmental and social impact assessment and the design works, in order to assess the current status of each project site, prepare a development concept and design an investment program to turn these sites into attractive destinations that will create a favorable environment for the development of the local economy.

VI. CURRENT STATE OF THE ENVIRONMENT (OSH)

This section provides a brief description of the current state of the natural and social environment within Mount Sulaiman-Too and adjacent areas. Detailed information on the geological, climatic, hydrological, biological, and ecological characteristics of the area, as well as the results of field surveys and analysis of additional data sources, is presented in Annex 1 to this report.

6.1 Geological Structure

Mount Sulaiman-Too is an isolated sandstone-limestone ridge formed as a result of tectonic processes. The mountain range is approximately 1.1 km long, varies in width from 150 to 300 m, and reaches a maximum elevation of approximately 1,110 m above sea level.

The geological structure is characterized by a developed system of tectonic fractures, karst cavities, and natural caves formed in Paleozoic limestone rocks. The presence of fractured and karstified rocks facilitates precipitation infiltration and the formation of localized groundwater flows. The mountain's topography is characterized by steep slopes and pronounced dissection, which affects slope stability and the development of geodynamic processes.

6.1.1 Seismic Conditions of the Region

According to the seismic zoning map of the Kyrgyz Republic (SP KR 20-02:2018), the area of Osh city and Mount Sulaiman-Too belongs to a zone of high seismic activity with an estimated intensity of 8-9 on the MSK-64 scale.

The seismicity of the region is due to active tectonic processes within the Tien Shan mountain system. Fractured rocks can trigger localized geological processes, including rockfalls and partial destabilization of rock masses. In natural karst cavities, the amplitude of seismic vibrations may be partially reduced; however, artificially formed sections of the cave complex require additional stability monitoring.

6.1.2 Geological Risks Near the Cave Complex

During geological surveys of the rocky areas around the cave complex, zones of potential instability were identified, posing a risk of rockfalls and localized collapses. Geological processes include karst leaching of rocks, fracturing, and precipitation penetration into underground cavities.

In some areas, surface and subsurface water infiltration is observed, which may lead to localized flooding of underground spaces and further development of karst processes.

6.1.3 Hydrogeological Conditions at the Project Site

Groundwater in the area is formed primarily by precipitation infiltration through a system of cracks and karst cavities in limestone rocks.

The average annual precipitation in the Osh area is approximately 325-400 mm, which determines the volume of groundwater infiltration. The cave museum complex periodically experiences water seepage and the formation of localized flood zones, especially after heavy rainfall or spring snowmelt. The main water seepage zones are located along tectonic fissures and karst cavities.

6.2 Climate and Meteorology

Osh has a sharply continental climate. According to Kyrgyzhydromet, the average annual temperature is approximately 11-12°C. The average January temperature is approximately -2°C to -3°C, while the average July temperature reaches 27°C to 28°C.

The absolute maximum temperature can exceed 40°C, while the absolute minimum reaches approximately -25°C. Annual precipitation is approximately 325 mm, with the greatest amount falling in the spring. The region is characterized by mountain-valley wind circulation and pronounced seasonal temperature variability.

6.2.1 Climate Change

Long-term observations of climatic parameters in Central Asia indicate a gradual increase in average air temperature. According to climate observations and international studies, the average temperature in the region has increased by approximately 0.2°C per decade since 1960. Climate change may increase the frequency of extreme weather events, including heatwaves, droughts, and heavy precipitation.

6.3 Air Quality and Noise

Air quality in Osh is assessed as moderate. According to international air quality monitoring systems (e.g., IQAir), the average air quality index (AQI) is approximately 70, which qualifies as moderate pollution.

The average annual concentration of fine particulate matter PM2.5 is approximately 20-22 μg/m³, exceeding the World Health Organization's recommended limit of 5 μg/m³. These values are based on modeling using satellite data and limited ground-based observations and are for illustrative purposes only.

The main sources of pollution are motor vehicles, domestic heating, and urban economic activity.

Elevated noise levels are observed near major highways and areas with heavy traffic.

6.4 Fire Hazard

The slopes of Mount Sulaiman-Too are at risk of wildfires due to a combination of a semi-arid climate, seasonal drying of grass and shrub vegetation, and anthropogenic activity.

The most vulnerable slopes are the northeastern, western, and southern slopes, where dry grass fires have previously been recorded. An additional risk factor is the accumulation of household waste, including glass items, which can contribute to fires under high solar radiation.

6.5 Surface Water

The main water body in the area is the Ak-Buura River, which flows at the foot of Mount Sulaiman-Too. The river belongs to the Karadarya and then the Syr Darya basins, and is an important water source for the city of Osh and adjacent agricultural areas.

The river is approximately 148 km long, and its basin area is approximately 2,530 km². Water resources are used primarily for domestic and irrigation purposes.

6.6 Flora and Fauna

The natural landscape of the area is characterized by steppe and semi-desert vegetation. Various tree and shrub species, including almond, elm, pistachio, pomegranate, and walnut, as well as herbaceous vegetation, are found on the mountain slopes.

Based on remote sensing and field observations, more than 4,600 trees of various species have been recorded in the mountain range. Fauna includes birds, small mammals, reptiles, and insects; more than 30 bird species have been recorded.

6.7 Tangible and Intangible Cultural Heritage

Mount Sulaiman-Too is a unique cultural, historical, and spiritual site of the Kyrgyz Republic and one of the most significant cultural landscapes in Central Asia. In 2009, the "Sacred Mountain Sulaiman-Too" site was inscribed on the UNESCO World Heritage List, recognizing its exceptional universal value and international significance.

The Sulaiman-Too cultural landscape has evolved over more than a thousand years and reflects traditions of religious pilgrimage, spiritual practices, and the historical development of the area. The site encompasses the mountain's rock massif and associated archaeological, religious, and historical cultural heritage elements. To preserve the historical landscape and visual integrity of the monument, the World Heritage site encompasses the sacred mountain itself and the adjacent protected area (buffer zone).

The complex contains numerous archaeological sites, including petroglyphs, caves, sacred sites, and religious buildings associated with the pilgrimage traditions of the peoples of Central Asia. According to

the Sulaiman-Too State Historical and Archaeological Museum-Reserve, more than 100 petroglyphs and 17 religious buildings representing various historical periods have been registered within the complex. The site is managed by the Sulaiman-Too State Historical and Archaeological Museum-Reserve, which operates under the coordination of the Ministry of Culture, Information and Youth Policy of the Kyrgyz Republic.

Sulaiman-Too Mountain is one of the most visited cultural sites in the southern Kyrgyz Republic and plays a significant role in the region's cultural and tourist life. Hundreds of thousands of visitors, including both tourists and religious pilgrims, visit the site annually. The site is most popular during the spring and summer months and during religious holidays.

6.8 Natural Disasters and Risks

The Osh city area is located in a high-risk zone typical of the mountainous regions of the southern Kyrgyz Republic.

The main natural risk for Sulaiman-Too Mountain is the region's high seismic activity. According to the seismic zoning map of the Kyrgyz Republic, the area is prone to earthquakes with intensities of up to 8-9 on the MSK-64 scale.

In the fractured limestone massif, local geodynamic processes are possible, including rockfalls and partial destabilization of individual rock blocks, especially on steep slopes and near the cave complex.

An additional natural risk factor is the fire hazard of the slopes, associated with the arid climate, seasonal drying of grassy vegetation, and anthropogenic impact.

6.9 Anthropogenic Impact on the Environment

In recent years, the Sulaiman-Too area has seen an increase in anthropogenic pressure associated with increased tourism and recreational use of the area.

The main environmental issues include:

- accumulation of household waste
- localized damage to soil and vegetation
- risk of fires
- impact of vehicle emissions
- insufficient infrastructure for visitors. These factors impact the natural environment and require the implementation of effective measures for managing the territory and regulating the tourist load.

6.10 Social Environment

Sulaiman-Too Mountain is located in Osh, the second-largest city in the Kyrgyz Republic and the largest administrative, economic, and cultural center in the south of the country.

According to the National Statistical Committee of the Kyrgyz Republic, the permanent population of Osh at the beginning of 2024 was 322,164.

The total population of the Kyrgyz Republic at the beginning of 2024 was approximately 7.16 million, with approximately 36% of the population living in urban areas and approximately 64% in rural areas.

Sulaiman-Too Mountain is located in the central part of Osh and is surrounded by dense urban development. Residential areas, religious sites, educational institutions, and medical facilities are located in the immediate vicinity of the complex.

6.10.1 Demographic Characteristics

The population of Osh is characterized by a multi-ethnic composition and stable demographic trends. The main ethnic groups are Kyrgyz and Uzbeks, with representatives of other nationalities also residing in the city, including Russians, Tatars, Uyghurs, and Turks.

The median age of the population of the Kyrgyz Republic is approximately 28 years, reflecting the relatively young age structure of the population and ongoing natural growth.

6.10.2 Economic Activity and Employment

Osh is an important economic center in southern Kyrgyzstan. The city's economy is based primarily on trade, transportation, services, processing industry, and agriculture.

A significant portion of economic activity is associated with the development of small and medium-sized businesses, trade, and transport and logistics services.

6.10.3 Tourism and Cultural Significance of the Territory

Tourism is one of the developing sectors of the Kyrgyz Republic's economy. According to the National Statistical Committee of the Kyrgyz Republic, approximately 8.6 million foreign citizens visited the country in 2023, the majority of whom came from Central Asian countries.

Tourism accounts for approximately 4-5% of the country's gross domestic product.

Sulaiman-Too Mountain is one of the most famous cultural sites in the Kyrgyz Republic and annually attracts a significant number of visitors, including tourists and religious pilgrims.

6.10.4 Social Infrastructure

Sulaiman-Too is located in the central part of Osh and is surrounded by urban infrastructure.

According to municipal authorities, the city has:

- more than 80 comprehensive schools
- approximately 50 preschool institutions
- 7 higher education institutions, including Osh State University.

The healthcare system is represented by a network of public and private medical institutions, including regional and city hospitals, clinics, and specialized medical centers.

6.10.5 Income Level and Social Conditions

The socioeconomic status of the population is determined by income and employment levels. According to the National Statistical Committee of the Kyrgyz Republic, the poverty rate in the country is approximately 29% of the population.

The average nominal wage in 2024 was approximately 33,000 soms per month, and the subsistence minimum in the second quarter of 2025 was 8,323.69 soms per person.

6.10.6 Vulnerable Population Groups

Vulnerable groups include the elderly, persons with disabilities, women with children, and low-income households.

According to the National Statistical Committee of the Kyrgyz Republic, the population of Osh city exceeds 320,000 people, with approximately 5-6% of the population being over working age. According to the Ministry of Labor, Social Security, and Migration of the Kyrgyz Republic, approximately 200,000 people with disabilities are registered in the country, some of whom live in the Osh region and Osh city.

The vulnerability of certain population groups may be related to household income levels, access to employment and social infrastructure, and the dependence of some populations on labor migration.

6.10.7 Public Health

The public health status of the population of Osh city is assessed based on sanitary and epidemiological monitoring data and healthcare system statistics.

The majority of morbidity is caused by acute respiratory infections, respiratory diseases, and other infectious and non-infectious diseases typical of the urban environment.

Medical care for the population of Osh city is provided through a well-developed network of public and private medical institutions, including city and regional hospitals, clinics, family medical centers, as well as private clinics and diagnostic centers.

The availability of medical infrastructure ensures access to essential medical services.

6.10.8 Social Significance of the Project Area

The Sulaiman-Too area has high social significance for the residents of Osh and surrounding areas. Local residents use the complex as a place for recreation, walks, and cultural events.

In addition to its recreational function, the area has significant spiritual significance and is used as a site of religious pilgrimage.

Thus, Sulaiman-Too serves a combination of cultural, recreational, and spiritual functions in the life of Osh, requiring special attention to preserving the historical and cultural landscape and ensuring sustainable management of the area.

VII. CURRENT STATE OF THE ENVIRONMENT (UZGEN)

This section provides a brief description of the current state of the natural and social environment within the Uzgen Historical and Architectural Complex (UHAC) and adjacent areas of Uzgen city. Detailed information on the current state of the natural and social environment is presented in Annex 2 to this report.

It should be noted that, unlike the Sulaiman-Too area, which is a natural cultural landscape, the Uzgen Historical and Architectural Complex is an architectural heritage site formed within an urban environment. Therefore, the environmental characteristics of the area are predominantly urbanized, with primary attention paid to the condition of the historic structures and their interaction with the surrounding urban environment.

7.1 Geological Structure

The territory of Uzgen city is located within the Fergana intermountain depression, formed as a result of tectonic processes of the Tien Shan fold system. The geological structure of the area is represented primarily by alluvial and deluvial-proluvial deposits formed as a result of erosion and accumulation processes in the Kara Darya River valley.

The terrain is predominantly flat or gently undulating, with a gradual slope toward the river valley. Soil and geological conditions are characterized by the prevalence of loamy and sandy loam soils, which determines the characteristics of the water regime and the foundations of historical buildings.

7.1.1 Seismic Conditions of the Area

According to the seismic zoning map of the Kyrgyz Republic (SP KR 20-02:2018), the territory of Uzgen belongs to a zone of high seismic activity with an estimated intensity of 8-9 points on the MSK-64 scale.

The seismicity of the region is caused by active tectonic processes in the Tien Shan mountain system. For the complex's historic architectural structures, the main risk is seismic vibrations, which can impact the stability of the structures.

7.1.2 Geological Risks on the Complex's Site

The main geological risks for the Uzgen Historical and Architectural Complex are seismic impacts, as well as natural weathering of building materials due to climatic factors.

For historic structures, potential hazards include temperature fluctuations, precipitation, and the gradual deterioration of masonry due to natural factors.

7.1.3 Hydrogeological Conditions

The hydrogeological conditions of the area are influenced by the water resources of the Kara Darya River basin, one of the largest tributaries of the Syr Darya.

Groundwater is formed primarily through the infiltration of precipitation and river water. Groundwater levels can fluctuate depending on seasonal fluctuations in river runoff and irrigation practices.

7.2 Climate and Meteorology

The climate of the Uzgen district is characterized as sharply continental, typical of the southern regions of the Kyrgyz Republic. According to Kyrgyzhydromet, the average annual air temperature is approximately 12°C. The average January temperature is approximately -2°C to -3°C, while the average July temperature reaches 28°C to 30°C. In summer, short periods of intense heat are possible, with temperatures exceeding 40°C.

Annual precipitation averages 300-350 mm, with the greatest amount falling in the spring. The area is characterized by pronounced seasonal temperature variability, as well as wind processes associated with air circulation within the Fergana Valley.

7.2.1 Climate Change

Long-term climate observations in the Central Asian region indicate a gradual increase in average air temperature. According to climate research and observations by Kyrgyzhydromet, the average air temperature in the region has increased by approximately 0.2°C per decade since the mid-20th century.

Climate changes are expected to increase the frequency of extreme weather events, including heat waves, droughts, and heavy precipitation, which is typical for the southern regions of the Kyrgyz Republic.

7.3 Air Quality and Noise Levels

Air quality in Uzgen is generally assessed as satisfactory. According to the International Air Quality Monitoring System (IQAir), the air quality index (AQI) during the observation period was approximately 58, which corresponds to the moderate air pollution category. The main pollutant is fine particulate matter PM2.5, with a concentration of approximately 13.1 mg/m³. It should be noted that the data presented are based on modeling using satellite observations and are only indicative due to the limited number of ground-based air quality monitoring stations in the region.

The main sources of air pollution in the city are motor vehicles, residential heating, and commercial activities. The central part of the city, where major transportation routes and historical sites are located, experiences higher traffic loads. Narrow city streets and heavy traffic in certain areas can lead to traffic congestion, contributing to localized increases in pollutant concentrations near roads.

Noise levels in the urban environment are primarily due to traffic and commercial activity. Elevated noise levels are observed along major roads and in the central part of the city, where traffic is heaviest. In the rest of the city, the acoustic load is assessed as relatively low and typical of small towns with limited industrial activity.

7.4 Fire Hazard

The Uzgen Historical and Architectural Complex is located within urban development, so the natural fire hazard is low. The main fire risks are associated with anthropogenic factors, including household fires, electrical system malfunctions, and careless fire handling.

Fire safety issues are crucial for the complex's historical architectural structures due to their high cultural value and the need for their preservation.

7.5 Surface Water

The main body of water in the area is the Kara Darya River, which flows through the northern part of Uzgen. The river is part of the Syr Darya basin and is one of the region's main water resources.

The distance from the Uzgen Historical and Architectural Complex to the riverbed is approximately 2-3 km, so the river's direct impact on the complex is limited. Nevertheless, the Kara Darya's water resources play an important role in shaping the region's hydrological regime and are widely used for agricultural irrigation, water supply to populated areas, and domestic needs.

Within the urban area of Uzgen, there is also a developed network of irrigation canals connected to the Kara Darya's water resources, which are used for agricultural irrigation and urban landscaping.

7.6 Flora and Fauna

The territory of the Uzgen Historical and Architectural Complex is located within an urbanized environment, where natural ecosystems have been significantly transformed by human activity.

Vegetation is represented primarily by ornamental greenery, trees, and shrubs used in urban landscaping, as well as agricultural crops in adjacent areas.

Fauna includes bird and small animal species common to urban areas.

7.7 Tangible and Intangible Cultural Heritage

The Uzgen Historical and Architectural Complex is one of the most significant monuments of medieval architecture in Central Asia and an important cultural heritage site of the Kyrgyz Republic. The complex is located in the city of Uzgen in the Osh region and represents a unique architectural ensemble formed during the Karakhanid Empire (11th-12th centuries).

The historical development of Uzgen is closely linked to its location on the ancient trade routes of the Fergana Valley. During the medieval period, the city was one of the important political, economic, and cultural centers of the region. The architectural structures of the complex reflect the high level of construction art of the time and are valuable examples of medieval architecture and decorative brickwork.

The main elements of the complex are the Uzgen Minaret, dating from the 12th century, and three Karakhanid mausoleums, which represent outstanding architectural and monumental monuments. These structures are distinguished by their distinctive architectural composition and rich decorative brickwork.

The Uzgen Historical and Architectural Complex has high historical and cultural value and is an important site for preserving the historical heritage of the Kyrgyz Republic. The complex is used as a historical and tourist attraction and attracts visitors interested in the history and architectural heritage of the region.

7.8 Natural Disasters and Risks

The city of Uzgen is located in a natural hazard zone typical of the southern regions of the Kyrgyz Republic. The main natural risk factor is seismic activity, as the region is prone to earthquakes with an intensity of 8-9 on the MSK-64 scale.

Additional natural risks include flooding and localized flooding due to the city's location in the Kara Darya River valley, as well as extreme weather events, including extreme heat and heavy precipitation. The territory of the Uzgen Historical and Architectural Complex is located within urban development and is not located in mudflow channels or directly affected by rivers. The main natural risk factor for the complex's historic structures remains seismic activity in the region.

7.9 Anthropogenic Impact on the Environment

The anthropogenic impact on the territory of the Uzgen Historical and Architectural Complex is primarily due to the site's location in the central part of the city and the active use of the surrounding area. The main sources of impact are traffic, urban economic activity, and tourism to the complex.

The central part of Uzgen experiences high traffic congestion due to narrow, historically formed streets and heavy traffic. During rush hour, traffic jams regularly form near the central streets and adjacent markets, leading to increased local emissions of pollutants into the atmosphere and elevated noise levels.

Additional impact factors include recreational use of the territory, the presence of visitors and tourists, and the generation of household waste in adjacent public spaces. In an urban environment, these factors have a local impact on the sanitary condition of the area and require systematic cleaning and visitor flow management.

Overall, the anthropogenic impact on the complex is local in nature and is primarily associated with the urban environment in which the cultural heritage site is located.

7.10 Social Environment

The Uzgen Historical and Architectural Complex is located in the city of Uzgen in the Osh region of the Kyrgyz Republic.

According to the National Statistical Committee of the Kyrgyz Republic, the population of Uzgen city is approximately 60,000, while the population of the Uzgen district exceeds 280,000.

Uzgen city is the administrative center of the district and serves as a regional trade and agricultural center for the south of the country.

7.10.1 Demographic Characteristics

The population of the Uzgen district is characterized by steady natural growth and a multi-ethnic composition. The main ethnic groups are Kyrgyz and Uzbeks, with representatives of other nationalities also residing there.

7.10.2 Economic Activity and Employment

The economy of the Uzgen district is based primarily on agriculture, trade, services, and small businesses.

A significant portion of economic activity is related to agricultural production, processing of agricultural raw materials, trade in local markets, and transportation and logistics services.

7.10.3 Tourism and Cultural Significance of the Territory

The Uzgen Historical and Architectural Complex is one of the most significant cultural tourism sites in the Osh region.

The complex is visited annually by tourists, researchers, and pilgrims interested in the history of the Karakhanid Empire and the architectural heritage of Central Asia.

7.10.4 Social Infrastructure

The city of Uzgen has social infrastructure facilities, including comprehensive schools, preschools, and medical facilities.

Medical care is provided to the population through a network of district medical institutions, including a district hospital, clinics, and outpatient clinics.

7.10.5 Income Level and Social Conditions

The socioeconomic status of the population of Uzgen city and the Uzgen district generally corresponds to the average for the southern regions of the Kyrgyz Republic.

According to the National Statistical Committee of the Kyrgyz Republic, the average nominal wage in the country in 2024 was approximately 33,000 soms per month, and the poverty rate is estimated at approximately 29% of the population.

The economic activity of the population of Uzgen city and adjacent rural areas is largely related to agriculture, trade, services, and small businesses. An additional source of income for many households are remittances from migrant workers working outside the country.

7.10.6 Vulnerable Populations

Vulnerable groups include the elderly, persons with disabilities, low-income families, women with children, and households whose income is largely dependent on seasonal employment or labor migration. In the city of Uzgen and the Uzgen district, as in other regions of the southern Kyrgyz Republic, the vulnerability of certain population groups may be related to limited access to stable employment, dependence on agricultural income, and remittances from migrant workers.

According to the Ministry of Labor, Social Security, and Migration of the Kyrgyz Republic, approximately 200,000 people with disabilities are registered in the country, some of whom live in the southern regions.

7.10.7 Public Health

The public health status of the population of the city of Uzgen and the Uzgen district is assessed based on sanitary and epidemiological monitoring data and healthcare statistics.

The most common diseases remain acute respiratory infections, respiratory diseases, and other illnesses typical of the urban environment. Medical care is provided to the population through a network of district medical institutions, including the Uzgen District Hospital, family medicine centers, family physician groups, and feldsher-midwife stations located in the district's settlements.

The district healthcare system ensures basic access to medical services for the city and surrounding areas.

7.10.8 Social Significance of the Project Area

The Uzgen Historical and Architectural Complex plays an important role in the cultural life of the city of Uzgen and the Osh Region.

The complex is used as a historical monument, a tourist attraction, and a venue for cultural and educational events, contributing to the preservation of historical and cultural heritage and the development of cultural tourism in the region.

VIII. ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT

8.1. Applicable approach to the assessment

ESIA is being carried out as part of the project to modernize the infrastructure of two historical and cultural sites - Suleiman-Too (STC) and the Uzgen Historical and Architectural Complex (UIAC). This project includes repair work, landscaping, installation of information signs, as well as the construction of a new museum: on the territory of UIAC.

The purpose of the assessment is to identify potential E&S impacts and propose measures to prevent, minimize or reduce the negative impact on the environment and people (social conditions) during the implementation of reconstruction/modernization work on the infrastructure of the Suleiman-Too complex and the Uzgen Historical and Architectural Complex.

8.1.1. Legal requirements

The environmental and social assessment of the project is carried out in accordance with the requirements of the legislation of the Kyrgyz Republic and the World Bank's Environmental and Social Standards.

As part of the project's preparation, an Environmental and Social Impact Assessment (ESIA) was developed and completed during the feasibility study (FS) in accordance with the requirements of the World Bank's Environmental and Social Framework (ESF). This assessment is comprehensive and covers the environmental and social aspects of the project, including cultural heritage protection, labor relations, public health and safety, and stakeholder engagement.

In accordance with the legislation of the Kyrgyz Republic, certain activities related to the construction of tourism and recreational infrastructure facilities may be subject to the national environmental impact assessment (EIA) procedure and state environmental review. The legal basis for conducting an EIA is established by the following regulations:

- Law of the Kyrgyz Republic "On General Technical Regulations for Ensuring Environmental Safety" No. 151 of May 8, 2009 (Appendix 1, paragraph 19);
- Regulation on the Procedure for Conducting Environmental Impact Assessments in the Kyrgyz Republic, approved by Resolution of the Government of the Kyrgyz Republic No. 60 of February 13, 2015.

These regulations govern the procedure for conducting environmental impact assessments and establish requirements for the environmental assessment of projects that may impact the environment.

Additionally, the implementation of project activities must be carried out in accordance with the legislation of the Kyrgyz Republic in the field of historical and cultural heritage protection. The main regulatory act is the Law of the Kyrgyz Republic "On the Protection and Use of Historical and Cultural Heritage," which regulates the procedure for preserving, using, and carrying out work on cultural heritage sites. In accordance with the requirements of this law, any reconstruction, restoration, or improvement work at cultural heritage sites must be carried out in compliance with the established protection regime for such sites and in coordination with authorized state bodies responsible for cultural heritage protection.

Given that the Sulaiman-Too National Historical and Archaeological Museum Complex is included on the UNESCO World Heritage List, design solutions and construction work must also take into account the international obligations of the Kyrgyz Republic to preserve World Heritage sites.

Within the framework of the project under consideration, most activities are related to the reconstruction and improvement of infrastructure within existing historical and cultural complexes. Such work, as a rule, does not require a separate EIA procedure.

At the same time, the subproject for the construction of a new Museum building in Uzgen is one of the activities that may be subject to the national EIA procedure. In this case, a mandatory "Environmental

Protection" section will be prepared during the development of the design and estimate documentation (DED), which is subject to review as part of the state environmental assessment. Thus, the environmental assessment for this project is carried out at two complementary levels:

1. ESIA (in accordance with World Bank requirements)

- Conducted at the feasibility study stage and includes:
- Analysis of the initial environmental and social status of the territory;
- Assessment of potential project impacts;
- Analysis of alternative solutions;
- Development of measures to prevent and minimize impacts;
- Preparation of environmental and social risk management plans.

2. National EIA procedure (in accordance with Kyrgyz legislation)

Conducted at the design and estimate documentation stage for individual activities subject to legal requirements. The assessment is documented as an "Environmental Protection" section of the project documentation and undergoes state environmental review.

Additionally, the following activities are envisaged during project preparation and implementation, in accordance with both national legislation and World Bank standards:

- Environmental and social screening of subprojects;
- Preparation and implementation of Environmental and Social Risk Management Plans (ESRMs);
- stakeholder consultations;
- monitoring environmental and social impacts during the construction and operation phases.

The project to restore and modernize the infrastructure of the Sulaiman-Too and Uzgen historical and cultural sites will be implemented in full compliance with environmental safety and environmental protection requirements. All reconstruction work must consider both environmental and social aspects and ensure the preservation of cultural heritage sites. Particular attention will be paid to preserving the outstanding universal value of cultural heritage sites, including the Sulaiman-Too UNESCO World Heritage Site. All design solutions and planned work will be developed and implemented to prevent negative impacts on the historical and cultural value of the sites and ensure their long-term preservation.

8.1.2. Application of WB ESS Principles in the Project

The World Bank’s Environmental and Social Standards (ESSs) establish the requirements that the Borrower and the Project must meet throughout the entire project life cycle to ensure environmental and social sustainability.

The relevance of the ESSs to the Project has been analyzed in Section 3.3 (Gap Analysis), which compares national legislation and the World Bank requirements.

Building on that analysis, this section focuses on how these standards will be applied at the project implementation level, describing the key management measures, instruments, and monitoring arrangements that ensure compliance with the ESSs during the design, construction, and operation phases.

Table 4 provides an overview of the practical the application of the World Bank's ESS within the Project, indicating specific actions, mitigation tools, and responsibilities for their implementation:

Table 4. Applying WB ESS to a Project

No	Environmental assessment	Applicability	Processes in the Project	Management Instruments / Actions
1.	ESS1: Assessment and management of environmental social risks and impacts	✓	ESIA prepared in line with WB ESSs, UNESCO requirements, and national legislation. Covers reconstruction, restoration, maintenance of facilities, and construction of a new Museum. Environmental and social screening conducted.	Environmental and Social Management Plan (ESMP) with site-specific plans; Monitoring program; Stakeholder Engagement Plan (SEP); multi-level Grievance Redress Mechanism (GRM).
2.	ESS2: Labor and working conditions	✓	Different categories of workers (direct, contracted). Risks: labor influx, discrimination, unsafe conditions, SEA/SH, grievances.	Labor Management Procedures (LMP); Codes of Conduct; SEA/SH prevention and response measures; Worker GRM; Site-specific OHS Plans; Contractor compliance monitored by ARIS.
3.	ESS 3: Resources and efficiency, pollution prevention and management	✓	Risks: dust, air emissions, wastewater discharge, solid waste generation, soil pollution, irrational energy/water use.	Waste Management Plan; Dust suppression; Water use control; Energy efficiency measures; ESMP contractor obligations.
4.	ESS4: Community health and safety	✓	Risks to visitors and local communities during works: traffic hazards, access restrictions, safety hazards. Potential SEA/SH risks for local women and vulnerable groups linked to labor influx.	Rehabilitation/modernization works will be carried out on the territory of cultural objects, therefore there will be risks associated with the safety of visitors. Given the limited scale and local nature of the work, a significant influx of external labor is not expected; it is assumed that local workers will be predominantly involved. Measures to ensure safe vehicle movement and visitor access; Fencing, restricted access zones; Information boards and safety signage; SEA/SH prevention and response measures; (awareness campaigns, Codes of Conduct, confidential GRM); Emergency preparedness measures.
5.	ESS5: Land acquisition, land use restrictions and involuntary resettlement	✓	There are no plans to acquire land plots for permanent use. All work is scheduled to take place on state-owned land within the existing infrastructure and operational complexes of the heritage sites. During the works, there may be temporary restrictions on visitor access	No such impact is expected under the project, as the proposed activities are planned within the premises of existing museums and cultural heritage sites that are state-owned. Confirmation of state-owned land: – Land status confirmed: STC – 78.89 ha (Gov. Res. No.149, 23.03.2018); – UHAC – 2.76 ha (Gov. Res. No.471, 26.06.2004). Measures: monitoring of temporary economic impacts; temporary livelihood support if required; GRM for land/access issues; integration into ESMP. No RAP required.
6.	ESS6: Conservation of biodiversity and sustainable management of living natural resources		Project activities are confined primarily to existing infrastructure, landscaped areas, and previously developed or anthropogenically modified land. No	Not applicable. No ESS6-specific management instrument is required. Standard measures for protection of existing vegetation and avoidance of unnecessary disturbance will be implemented through the ESMP and site-specific C-ESMPs.

No	Environmental assessment	Applicability	Processes in the Project	Management Instruments / Actions
			conversion or degradation of natural or critical habitats, impacts on protected species, or disruption of wildlife corridors is anticipated. Therefore, ESS6 is not considered applicable.	
7.	ESS7: Indigenous peoples/historically undervalued traditional local communities in sub-Saharan Africa		No Indigenous Peoples as defined by ESS7 in Kyrgyz Republic.	Not applicable
8.	ESS8: Cultural heritage	✓	Works at UNESCO World Heritage site (Sulaiman-Too) and UHAC. Includes mosque, mausoleum, museums, Bronze Age settlement. Direct impacts minor; indirect/social impacts possible.	Chance Finds Procedure; ESMP measures for cultural heritage; Consultations on intangible heritage; Oversight by Ministry of Culture/UNESCO National Commission.
9.	ESS9: Financial intermediaries		The project does not involve financial intermediary institutions.	Not applicable
10	ESS10: Stakeholder engagement and information disclosure	✓	Stakeholders: local residents, visitors, artisans, NGOs, municipal/state authorities. Risks: exclusion of vulnerable groups, lack of information.	Stakeholder Engagement Plan (SEP); Public consultations; Information campaigns (flyers, radio, social media, QR-codes); GRM accessible to women, youth, elderly, people with disabilities.

Note: This table summarizes the practical mechanisms through which the ESS requirements are integrated into project planning, construction, and operation phases.

8.2. Assessment methodology

This chapter provides a detailed assessment of the potential impacts of the proposed interventions on the Sulaiman-Too Complex and the Uzgen Historical and Architectural Complex.

The methodology and indicators used in this assessment provide a thorough and balanced analysis that considers the nature of the impact, scale, duration, and severity of impacts associated with each intervention. The assessment covers both direct and indirect impacts, facilitating informed decision-making and the development of effective mitigation strategies.

The impact assessment uses a methodology to evaluate the technical solutions considered for each site, providing a comprehensive analysis of the potential impacts during the construction and operation periods. The key components of this methodology include the columns of the assessment table presented below, with each component explained as follows:

Impact nature

- Positive - An impact that is considered an improvement on the baseline or introduces a positive change.
- Negative - An impact that is considered an adverse change on the baseline or introduces a new, undesirable factor.
- Direct Impacts - Impacts resulting from direct interactions between the planned project activity and the receiving environment/receptors (e.g. between site occupation and existing habitats, or between wastewater discharges and receiving water quality).
- Indirect Impacts - Impacts resulting from other activities that the Project encourages (e.g. internal migration for employment creating demand for resources).
- Scale
- On-site – impacts that are limited to the site boundaries.
- Local – impacts that affect an area in a radius of 2km around the site.
- Regional – impacts that affect regionally important environmental resources or are experienced at a regional scale as determined by administrative boundaries, habitat type/ecosystem.
- National – impacts that affect nationally important environmental resources or affect an area that is nationally important/ or have macro-economic consequences.

Duration

- Short-term – impacts that are predicted to last only for the duration of the construction period.
- Long-term – impacts that will continue for the life of the Project, but ceases when the Project stops operating.

Impact rating

- Low Risk - minimal or no risks of adverse social or environmental impacts and do not require further assessment.
- Moderate Risk - have potential adverse social and environmental risks and impacts that are limited in scale, can be identified with a reasonable degree of certainty, and can be addressed through application of standard good practice (e.g. GIIP).
- Substantial Risk - potential adverse social and environmental risks and impacts that are more varied and complex than those of Moderate but remain limited in scale and are of lesser magnitude than those of High Risk.
- High Risk - potential significant adverse social and environmental risks and impacts that are irreversible, unprecedented and/or which raise significant concerns among potentially affected communities and individuals as expressed during the stakeholder engagement process.

Table 5. Environmental and social impact assessment table

Site	Type of planned activity	Stage of activity/type of work	Impact assessment criteria					Potential risks	Applicability of the ESS WB	Reference to the management plan
			Potential impacts design solutions (Positive, negative)	Direction of an impact (direct, indirect)	Duration (short, long-term)	Scale/Geographic extent (national, regional, local, on-site)	Impact rating (high, significant, moderate, low)			
Cluster 1. Sulaiman Too Complex										
Cluster 1.1.										
Fire Gate	• Kiosk • Entrance Gate • Paver flooring (Side walk and sitting area) • Information sign • Map posts • Lighting Lamps with post and Bollards • Dustbins • Benches • Landscaping Works • Road Repair Works (Parking Area) • Café • 2-Seater Golf Cart Electric Vehicle • 4-Seater Golf Cart Electric Vehicle • Battery Charger	Construction • Related to small volumes of excavation work, finishing work, electrical work, laying of the pipeline. • Resource efficiency; supply of materials and equipment. • Issues related to landscaping, maintenance of green spaces. • Risks related to labor protection. • Temporary restriction of access to public places.	Positive	Direct	Short-term	On-site (limited areas on the territory of the objects)	Moderate	• Dust and waste generation; noise; land and soil contamination. • Temporary disturbance or accidental damage to existing landscaped vegetation within the immediate work footprint during construction activities and movement of materials. No removal of natural vegetation, impact on important habitats, or disturbance of protected species is anticipated. • Safety of worker, local residents and visitors. • Use of forced labor, labor influx, violence/ sexual harassment. • Damage to heritage objects	ESS1, ESS2, ESS3, ESS4, ESS8, ESS10	ESMP, waste management plan, air pollution checklists, OHS plan, SEP, cultural heritage management plan, emergence response plan
		Operation • Issues related to landscaping, maintenance of green spaces. • Issues related to maintenance. • Emergency issues.	Positive	Direct	Long term	On-site (entire territory of the object)	Low	• Waste water and waste generation; soil pollution. • Safety of worker, local residents and visitors.	ESS1, ESS2, ESS3, ESS4, ESS8.	ESMP, waste water and waste management plan, OHS plan, emergency response plan, cultural heritage management plan, maintenance plan.

North Access Mountain Gate	• New Toilet Block • New Ticket Booth • Kiosk • Shed Café • Entrance Gate • Pavers flooring, walkways, sitting etc • Information Signs • Map Post • Light Lamps with posts and Bollards • Dustbins • Benches • Grass & Landscape Work • Road Repair Works • Dismantling of existing boundary wall • New Boundary wall works (Avg. 8ft Height)	Construction • Related to dismantling works, small volumes of excavation work, finishing work, electrical work, laying of the pipeline. • Resource efficiency; supply of materials and equipment. • Issues related to landscaping, maintenance of green spaces. • Risks related to labor protection. • Temporary restriction of access to public places.	Positive	Direct	Short-term	On-site (limited areas on the territory of the objects)	Moderate	• Dust and waste generation; noise; land and soil contamination. • Temporary disturbance or accidental damage to existing landscaped vegetation within the immediate work footprint during construction activities and movement of materials. No removal of natural vegetation, impact on important habitats, or disturbance of protected species is anticipated. • Safety of worker, local residents and visitors. • Use of forced labor, labor influx, violence/ sexual harassment. • Damage to heritage objects	ESS1, ESS2, ESS3, ESS4, ESS8, ESS10	ESMP, waste management plan, air pollution checklists, OHS plan, SEP, cultural heritage management plan, emergence response plan
		Operation • Issues related to landscaping, maintenance of green spaces. • Issues related to maintenance. • Emergency issues.	Positive	Direct	Long term	On-site (entire territory of the object)	Low	• Waste water and waste generation; soil pollution. • Safety of worker, local residents and visitors.	ESS1, ESS2, ESS3, ESS4, ESS8.	ESMP, waste water and waste management plan, OHS plan, emergency response plan, cultural heritage management plan, maintenance plan.
Water Gate	New Toilet Block • New Ticket Booth • Kiosk • Café • Entrance Gate • Pavers flooring, walkways, sitting etc • Information Signs • Map Post • Lighting Lamps with Post and Bollards • Dustbin • Benches	• Construction • Related to small volumes of excavation work, finishing work, electrical work, laying of the pipeline. • Resource efficiency; supply of materials and equipment. • Issues related to landscaping, maintenance of green spaces. • Risks related to labor protection. • Temporary restriction of access to public places.	Positive	Direct	Short-term	On-site (limited areas on the territory of the objects)	Moderate	• Dust and waste generation; noise; land and soil contamination. • Temporary disturbance or accidental damage to existing landscaped vegetation within the immediate work footprint during construction activities and movement of materials. No removal of natural vegetation, impact on important habitats, or	ESS1, ESS2, ESS3, ESS4, ESS8, ESS10	ESMP, waste management plan, air pollution checklists, OHS plan, SEP, cultural heritage management plan, emergence response plan

	• Grass & Landscape Work • Road Repair Works							disturbance of protected species is anticipated. • Safety of worker, local residents and visitors. • Use of forced labor, labor influx, violence/ sexual harassment. • Damage to heritage objects		
		Operation • Issues related to landscaping, maintenance of green spaces. • Issues related to maintenance. • Emergency issues.	Positive	Direct	Long term	On-site (entire territory of the object)	Low	• Waste water and waste generation; soil pollution. • Safety of worker, local residents and visitors.	ESS1, ESS2, ESS3, ESS4, ESS8.	ESMP, waste water and waste management plan, OHS plan, emergency response plan, cultural heritage management plan, maintenance plan.
Mountain Trail Rehabilitation & Viewing Deck	• Mountain Trail Rehabilitation • Trail Steps, Treads, risers & landings • Trail Railing works • Information Signs • Benches (Resting Spots) • Dustbins • Paver flooring/walkways etc (at Resting Spots) • Lighting Lamps with posts and Bollards • Removal of redundant pipes along the trails. • Covering of exposed useful services pipes along the trails. • Babur Mosque (Viewing Deck) • Pavers flooring, walkways, sitting etc • Grass & Landscpae Work at Babur Mosque Viewing Area • Information Sign • Light Lamps with Posts and Bollards • Dustbin	Construction • Related to dismantling works, small volumes of excavation work, finishing work, electrical work, laying of the pipeline. • Resource efficiency; supply of materials and equipment. • Issues related to landscaping, maintenance of green spaces. • Risks related to labor protection. • Temporary restriction of access to public places.	Positive	Direct	Short-term	On-site (limited areas on the territory of the objects)	Moderate	• Dust and waste generation; noise; land and soil contamination. • Temporary disturbance to existing vegetation within the immediate work footprint, including designated landscaping areas, and risk of accidental damage to vegetation outside the approved work zone. No impacts on important habitats or protected species are anticipated. • Safety of worker, local residents and visitors. • Use of forced labor, labor influx, violence/ sexual harassment. • Damage to heritage objects	ESS1, ESS2, ESS3, ESS4, ESS8, ESS10	ESMP, waste management plan, air pollution checklists, OHS plan, SEP, cultural heritage management plan, emergence response plan
		Operation • Issues related to landscaping, maintenance of green spaces. • Issues related to maintenance. • Emergency issues.	Positive	Direct	Long term	On-site (entire territory of the object)	Low	• Waste water and waste generation; soil pollution. • Safety of worker, local residents and visitors.	ESS1, ESS2, ESS3, ESS4, ESS8.	ESMP, waste water and waste management plan, OHS plan, emergency response plan, cultural heritage management plan, maintenance plan.

	• Benches									
Cave Museum	• Dismantling and Reconstruction of Cave Museum Canopy • Renovation of exterior & interior Finishing Works, Painting, Flooring, Door/Window, Water, Toilet and Displays. For Cave Museum • Dismantling and Reconstruction of Toilet Block • Renovation of exterior & interior Finishing Works, Painting, Flooring, Door/Window, Water, Toilet and Displays. For Office Building • Decorative Treads and Risers • Trail Railing Works • Stone Cladding • Information Signs- External • Benches • Dustbins • Pavers flooring, walkways, sittings etc • Lighting Lamps with Posts and Bollards • Cave Water Proofing Internal& External • Improvement of structural stability • Wooden Sitting Sheds	Construction • Related to dismantling works, small volumes of excavation work, finishing work, electrical work, laying of the pipeline. • Resource efficiency; supply of materials and equipment. • Issues related to landscaping, maintenance of green spaces. • Risks related to labor protection. • Temporary restriction of access to public places.	Positive	Direct	Short-term	On-site (limited areas on the territory of the objects)	Moderate	• Dust and waste generation; noise; land and soil contamination. • Safety of worker, local residents and visitors. • Use of forced labor, labor influx, violence/ sexual harassment. • Damage to heritage objects	ESS1, ESS2, ESS3, ESS4, ESS8, ESS10	ESMP, waste management plan, air pollution checklists, OHS plan, SEP, cultural heritage management plan, emergence response plan
		Operation • Issues related to landscaping, maintenance of green spaces. • Issues related to maintenance. • Emergency issues.	Positive	Direct	Long term	On-site (entire territory of the object)	Low	• Waste water and waste generation; soil pollution. • Safety of worker, local residents and visitors.	ESS1, ESS2, ESS3, ESS4, ESS8.	ESMP, waste water and waste management plan, OHS plan, emergency response plan, cultural heritage management plan, maintenance plan.
Cluster 1.2.										
Ethnographic and Archeological Museum	• Renovation works of Existing Museum • Pavers flooring/walkways etc	Construction • Related to small volumes of excavation work, finishing work, electrical work, laying of the pipeline.	Positive	Direct	Short-term	On-site (limited areas on the territory of the objects)	Moderate	• Dust and waste generation; noise; land and soil contamination. • Temporary disturbance or accidental damage to	ESS1, ESS2, ESS3, ESS4,	ESMP, waste management plan, air pollution checklists, OHS plan, SEP, cultural heritage management

	• Grass & Landscape Works i/c trees, plants etc • Light Posts • Benches • Floor Markings for Parking • Information Signs • Dustbins • Decorative Steps, Treads & Risers • Monuments & Art Works	• Resource efficiency; supply of materials and equipment. • Issues related to landscaping, maintenance of green spaces. • Risks related to labor protection. • Temporary restriction of access to public places.						existing landscaped vegetation within the immediate work footprint during construction activities and movement of materials. No removal of natural vegetation, impact on important habitats, or disturbance of protected species is anticipated. • Safety of worker, local residents and visitors. • Use of forced labor, labor influx, violence/ sexual harassment. • Damage to heritage objects	ESS8, ESS10	plan, emergence response plan
		Operation • Issues related to landscaping, maintenance of green spaces. • Issues related to maintenance. • Emergency issues.	Positive	Direct	Long term	On-site (entire territory of the object)	Low	• Waste water and waste generation; soil pollution. • Safety of worker, local residents and visitors.	ESS1, ESS2, ESS3, ESS4, ESS8.	ESMP, waste water and waste management plan, OHS plan, emergency response plan, cultural heritage management plan, maintenance plan.
Frontal Square of Mausoleum Burkiya	• Pavers flooring/walkways etc • Decorative Steps, Treads & Risers • Grass & Landscaping Works • Dustbins • Information Signs • Lighting Lamps with Post and Bollards • Benches • Stone Archway • Art Work /Monument	Construction • Related to small volumes of excavation work, finishing work, electrical work, laying of the pipeline. • Resource efficiency; supply of materials and equipment. • Issues related to landscaping, maintenance of green spaces. • Risks related to labor protection. • Temporary restriction of access to public places.	Positive	Direct	Short-term	On-site (limited areas on the territory of the objects)	Moderate	• Dust and waste generation; noise; land and soil contamination. • Temporary disturbance or accidental damage to existing landscaped vegetation within the immediate work footprint during construction activities and movement of materials. No removal of natural vegetation, impact on important habitats, or disturbance of protected species is anticipated. • Safety of worker, local residents and visitors. • Use of forced labor, labor influx, violence/ sexual harassment.	ESS1, ESS2, ESS3, ESS4, ESS8, ESS10	ESMP, waste management plan, air pollution checklists, OHS plan, SEP, cultural heritage management plan, emergence response plan

								• Damage to heritage objects		
		Operation • Issues related to landscaping, maintenance of green spaces. • Issues related to maintenance. Emergency issues.	Positive	Direct	Long term	On-site (entire territory of the object)	Low	• Waste water and waste generation; soil pollution. • Safety of worker, local residents and visitors.	ESS1, ESS2, ESS3, ESS4, ESS8.	ESMP, waste water and waste management plan, OHS plan, emergency response plan, cultural heritage management plan, maintenance plan.
Cluster 2: Uzgen Historical and Architectural Complex										
Uzgen Historical and Architectural Complex	• Renovation of Existing Temporary Museum into Café/ Souvenior Shop • New Toilet Block • New Ticket Booth • Observation Platform • Protective barrier of Pebbles aorund heritage site • Information signs • Boundary Wall Works (8ft High) • Boundary Wall Works (4ft High) • Entrance Gate • Rehabilitation of Metalled Road /Road Repair Works • Information Signs • Benches • Dustbins • Light Posts • Pavers • Artwork / Monument • Grass & Landscaping Work • Providing and laying, 70sqmm cable with termination kit including all necessary components, excavation, backfilling, warning tapes, sand layers, bricks etc complete in all respects as per approved drawings, specifications and approval of the Engineer.	Construction • Related to small volumes of excavation work, finishing work, electrical work, laying of the pipeline. • Resource efficiency; supply of materials and equipment. • Issues related to landscaping, maintenance of green spaces. • Risks related to labor protection. • Temporary restriction of access to public places.	Positive	Direct	Short-term	On-site (limited areas on the territory of the objects)	Moderate	• Dust and waste generation; noise; land and soil contamination. • Temporary disturbance or accidental damage to existing landscaped vegetation within the immediate work footprint during construction activities and movement of materials. No removal of natural vegetation, impact on important habitats, or disturbance of protected species is anticipated. • Safety of worker, local residents and visitors. • Use of forced labor, labor influx, violence/ sexual harassment. • Damage to heritage objects	ESS1, ESS2, ESS3, ESS4, ESS8, ESS10	ESMP, waste management plan, air pollution checklists, OHS plan, SEP, cultural heritage management plan, emergence response plan
		Operation • Issues related to landscaping, maintenance of green spaces. • Issues related to maintenance. • Emergency issues.	Positive	Direct	Long term	On-site (entire territory of the object)	Low	• Waste water and waste generation; soil pollution. • Safety of worker, local residents and visitors.	ESS1, ESS2, ESS3, ESS4, ESS8.	ESMP, waste water and waste management plan, OHS plan, emergency response plan, cultural heritage management plan, maintenance plan.

New Uzgen Museum	• Construction of New Museum building including all components of RCC sub structure, super structure, finishes work, electrifications, ICT and plumbing works etc. complete in all respects as per approved drawings, specifications and directions of the Engineer. • prefabricated lightweight structures will be used.	Construction • Related to small volumes of excavation work, finishing work, electrical work, laying of the pipeline. • Resource efficiency; supply of materials and equipment. • Issues related to landscaping, maintenance of green spaces. • Risks related to labor protection. • Temporary restriction of access to public places.	Positive	Direct	Short-term	On-site (limited areas on the territory of the objects)	Moderate	• Dust and waste generation; noise; land and soil contamination. • Safety of worker, local residents and visitors. • Use of forced labor, labor influx, violence/ sexual harassment. • Damage to heritage objects	ESS1, ESS2, ESS3, ESS4, ESS8, ESS10	ESMP, waste management plan, air pollution checklists, OHS plan, SEP, cultural heritage management plan, emergence response plan
		Operation • Issues related to landscaping, maintenance of green spaces. • Issues related to maintenance. • Emergency issues.	Positive	Direct	Long term	On-site (entire territory of the object)	Low	• Waste water and waste generation; soil pollution. • Safety of worker, local residents and visitors.	ESS1, ESS2, ESS3, ESS4, ESS8.	ESMP, waste water and waste management plan, OHS plan, emergency response plan, cultural heritage management plan, maintenance plan.
Cluster 3: Archeological Sites; Medieval Bathhouse and Bronze Age Settlement										
Bronze Age Settlements	• Protective Shed • Staircase Steps, Tread & Risers • Railing Works • Viewing Sheds • Information Signs • Benches • Dustbin • Lighting Lamps with Posts and Bollards	Construction • Related to small volumes of excavation work, finishing work, electrical work, laying of the pipeline. • Resource efficiency; supply of materials and equipment. • Issues related to landscaping, maintenance of green spaces. • Risks related to labor protection. • Temporary restriction of access to public places.	Positive	Direct	Short-term	On-site (limited areas on the territory of the objects)	Moderate	• Dust and waste generation; noise; land and soil contamination. • Safety of worker, local residents and visitors. • Use of forced labor, labor influx, violence/ sexual harassment.. • Damage to heritage objects	ESS1, ESS2, ESS3, ESS4, ESS8, ESS10	ESMP, waste management plan, air pollution checklists, OHS plan, SEP, cultural heritage management plan, emergence response plan
		Operation • Issues related to landscaping, maintenance of green spaces. • Issues related to maintenance. • Emergency issues.	Positive	Direct	Long term	On-site (entire territory of the object)	Low	• Waste water and waste generation; soil pollution. • Safety of worker, local residents and visitors.	ESS1, ESS2, ESS3, ESS4, ESS8.	ESMP, waste water and waste management plan, OHS plan, emergency response plan, cultural heritage management plan, maintenance plan.

8.3. Assessment of Potential Impacts on Intangible Cultural Heritage

This assessment was carried out in accordance with World Bank Environmental and Social Standard 8 – ESS8.

ESS8 requires that projects financed by the World Bank:

- identify and protect cultural heritage, including intangible cultural heritage;
- avoid or minimize adverse impacts on cultural heritage;
- promote equitable sharing of benefits derived from the use of cultural heritage.

This assessment addresses ESS8 requirements related specifically to non-physical and living cultural heritage values associated with the project sites.

1. Objective and Scope

This assessment has been undertaken to identify and evaluate potential impacts of the proposed infrastructure development and associated tourism-related commercial activities at the Cave Museum site and the Uzgen Historical–Archaeological Site in Osh on intangible cultural heritage (ICH), in accordance with the requirements of World Bank Environmental and Social Standard 8 (ESS8).

For the purpose of this assessment, intangible cultural heritage is defined in line with ESS8 and includes practices, representations, expressions, knowledge, skills, and associated community meanings that communities, groups, or individuals recognize as part of their cultural heritage.

Project 1	Sulaiman Too Complex; a Natural Terrain of historical and sacred importance with important key landmarks. The natural topography gives a unique sensibility of cultural nodes, sacred legends, and man-made buildings of architectural importance and natural trail of 3 important significance. The trail needs an upgrade of ethical material sensibility, a preservation protection barrier, a contained secure system of significant gateways and public amenities to create an international standard site of historical significance. 1. Sacred & Cultural Heritage Trail: Sulaiman Too Mountain Trail 2. Access Infrastructure Facility: Water Gate, Fire Gate, North Access (Mountain Gate), 3. Museum Development & Rehabilitation: Cave Museum
Project 2	A postmodern Museum of Ethnography and Historical Mausoleum; both important for historical significance and for local and international tourism. But the site specification of both sites and its placement brings the idea of disconnecting. Both sites can be connected through reactivating the ethnographic courtyard at the back with Mausoleum's landscape upgrading. This amalgamation urban rejuvenation will bring positive signs and make the back side of the building as connecting point. The ethnographic museum needs new programming and relationship with international and local artists; therefore, the idea to have an outdoor exhibition space along with Artist Residency Program may bring a positive change and programming solution to the magnificent structure. The "backyard" will then become an active courtyard as a community public space for historians, researchers, archivists, students, and anyone interested in historical arts and understanding. The residency will serve as a modern apartment living, which will work as a Research & Innovative Lab. 1. Rehabilitation & Public Space Intervention: Ethnographic & Archeological Museum 2. Landscape Infrastructural Upgrade: Frontal Square Mausoleum Burkiya

Project 3	Uzgen Project as a city is a very charming and historically important. It is in dire need of its own identity and cultural formation through introduction of local museum and information center. The Uzgen Historical & Architectural Complex needs a management and guide training program along with local cultural and historical education programs for the tourism, and local communities' members. The complex is in good condition but needs an internal connectivity and amenities upgrade with modern mechanism of digital learning and museum collection for visitors to learn about the history of the Uzgen and their adjoining areas. 1. Rehabilitation & Public Space Intervention: Uzgen Historical & Architectural Complex through Landscape Infrastructural Upgrade and Access Infrastructure Facility 2. Museum Development and Curatorial Development: Development of New Museum of Uzgen

No.	Sites of Focus	Scope of work in each Project
1.0	Development of Fire Gate	a) External Works within the scope of Master Plan b) Visitor Center c) Parking Shed d) Entrance Gate & Fence Works
2.0	Development of Bronze Age	e) External Works within the scope of Master Plan f) Inscribed Glass Structure
3.0	Development of Cave Museum	g) External Works within the scope of Master Plan h) Administrative Block (External / Internal) i) Public Area / Viewing Deck (External) j) Main Stairs (External) k) Lower Podium (External) l) Upper Podium (External) m) Cave Museum Canopy (Main Façade) n) Lower Floor Plan (Internal) o) Upper Floor Plan (Internal)
4.0	Development of Water Gate	p) External Works within the scope of Master Plan q) Portable / Pre Fabricated Toilet Block r) Portable / Pre Fabricated Ticket Booth Block s) Entrance Gate t) Gold Cart Parking Area
5.0	Development of Ethnographic Museum	u) External Works within the scope of Master Plan v) Building Façade Upgradation
6.0	Development of Burkiya Mausoleum	w) External Works within the scope of Master Plan
7.0	Development of Petroglyphs	x) External Works within the scope of Master Plan
8.0	Development of Mountain Trail	y) External Works within the scope of Master Plan
9.0	Development of Mountain Gate	z) External Works within the scope of Master Plan aa) Portable / Pre-Fabricated Toilet Block bb) Portable / Pre-Fabricated Ticket Booth Block & Kiosk cc) Entrance Gate
10.0	Development of Uzgen Historical & Architectural Complex	dd) External Works within the scope of Master Plan ee) Multipurpose Building ff) New Museum gg) Entrance Gate & Pedestrian Gate hh) Symbolic Entrance Gate

2. Baseline Conditions: Intangible Cultural Heritage

2.1 Cave Museum Site

The Cave Museum site is associated with locally recognized intangible cultural values, including oral traditions, symbolic meanings, and informal spiritual or customary practices. These values are primarily community-based and are transmitted through oral history rather than formal documentation. The site contributes to local identity and cultural continuity, although it is not subject to formal religious designation or legally protected ritual use.

2.2 Uzgen Historical–Archaeological Site

The Uzgen site is strongly associated with historical memory and cultural identity, particularly linked to the Karakhanid period. Intangible cultural heritage values include traditional narratives, educational use, and community associations with regional history. While no active ritual practices were identified during baseline assessment, the site holds significant intangible value related to authenticity, sense of place, and collective memory.

3. Description of Project Activities Relevant to Intangible Heritage

Planned activities relevant to ESS8 include:

- Construction of museums and visitor facilities;
- Development of access infrastructure, including parking, pedestrian trails, and wheelchair-accessible routes;
- Establishment of organized visitor circulation systems;
- Introduction of tourism-related services and interpretation mechanisms.

These interventions are designed to enhance site management, visitor safety, and accessibility, without physical alteration of identified cultural heritage assets.

4. Impact Assessment

4.1 Potential Positive Impacts

The project is expected to generate several positive effects on intangible cultural heritage, including:

- Improved documentation, interpretation, and dissemination of local cultural narratives and historical knowledge;
- Enhanced public awareness and appreciation of cultural heritage values;
- Increased inclusivity through improved accessibility for persons with disabilities;
- Potential socio-economic benefits for local communities that may support the continued transmission of cultural knowledge and traditions.

4.2 Potential Adverse Impacts

Potential adverse impacts on intangible cultural heritage were identified as follows:

- Indirect commercialization effects, whereby increased tourism activity could affect the perceived cultural or symbolic significance of the sites;
- Dilution of cultural authenticity, if interpretation materials or visitor behavior are not appropriately managed;
- Disturbance of customary or informal community use, particularly at the Cave Museum site, due to increased visitor numbers.

5. Significance of Impacts

Based on the scale, nature, and design of the proposed interventions:

- No direct, permanent, or irreversible adverse impacts on intangible cultural heritage are anticipated;
- Identified risks are minor to moderate, indirect, and site-specific;

- No restriction of access, prohibition of cultural practices, or displacement of cultural users is foreseen.

Accordingly, the overall significance of potential adverse impacts on intangible cultural heritage is assessed as low, provided appropriate mitigation measures are implemented.

6. Mitigation and Management Measures

In accordance with ESS8 mitigation hierarchy, the following measures are proposed:

- Ongoing stakeholder engagement and consultation with local communities to ensure culturally appropriate interpretation and management;
- Integration of local cultural narratives, languages, and traditional knowledge into museum content and signage;
- Implementation of visitor management measures to control visitor behavior and avoid overcrowding;
- Application of culturally sensitive architectural and landscape design principles;
- Periodic monitoring of community perceptions and intangible heritage-related concerns during operation;
- Where commercially viable and consistent with national procurement and site management requirements, local communities will be provided with opportunities to participate in and benefit from heritage-related tourism activities. Measures may include engagement of local artisans, guides, cultural practitioners and community representatives in interpretation, awareness-raising and heritage preservation activities; provision of designated opportunities for local vendors; and transparent access to relevant employment and service opportunities. Community participation and distribution of benefits will be discussed through stakeholder engagement and monitored during Project implementation.

7. ESS8 Compliance Statement and Conclusion

This assessment confirms that:

- Intangible cultural heritage associated with the Cave Museum and Uzgen Historical–Archaeological Site has been identified and evaluated in accordance with ESS8.
- The project design avoids significant adverse impacts on intangible cultural heritage.
- Any potential minor adverse impacts can be effectively mitigated through the proposed management measures.

The planned infrastructure development and associated commercial activities are consistent with the requirements of World Bank ESS8 and are not expected to result in significant negative impacts on intangible cultural heritage. On the contrary, the project has the potential to support the preservation, transmission, and respectful presentation of intangible cultural heritage values.

The Project will also promote culturally appropriate opportunities for local communities to participate in heritage preservation and benefit from increased tourism-related activities, subject to applicable procurement, management and heritage protection requirements.

In addition to the assessment of potential impacts on intangible cultural heritage values, the ESIA also considered potential changes in visitor pressure associated with the planned improvement of tourism infrastructure and site accessibility. The following subsection provides an assessment of the potential increase in visitor numbers and proposed visitor flow management measures.

Assessment of Potential Increase in Tourist Load

Infrastructure modernization, improved navigation, enhanced public spaces, and the development of museum interpretation may lead to a moderate increase in visitor attendance to the Sulaiman-Too Complex and the Uzgen Historical and Architectural Complex.

Given the current attendance of the Sulaiman-Too Complex (approximately 1,000 visitors per day) and the significantly lower visitor flow in Uzgen (up to 200-220 people on peak days), the expected increase in attendance is considered manageable and is not expected to exceed the current recreational capacity of the sites, subject to the implementation of visitor flow management mechanisms envisaged by the project.

The main potential impacts associated with increased attendance may include:

- increased recreational load on certain areas of the territory;
- increased intensity of infrastructure use;
- potential impact on the perception of the cultural authenticity of the sites.

The project does not envisage changing the sacred status of the sites, restricting access for the local population, or interfering with the traditional uses of cultural heritage sites.

Visitor Flow Management Measures

To prevent overcrowding of cultural heritage sites and preserve their cultural and natural value, the project includes the implementation of tourist flow management mechanisms, including:

- implementation of a unified ticketing system based on QR codes allowing controlled entry to the complex;
- distribution of visitor flows between several entrances (Mountain Gate, Water Gate, the square in front of the Cave Museum, and the frontal square of the Burkia Mausoleum);
- organization of checkpoints along excursion routes;
- development of navigation systems and interpretive materials;
- regulation of visitor movement along designated tourist routes;
- monitoring visitor numbers and adjusting the management system if necessary.

The implementation of these measures will distribute visitor flows across the complex, prevent localized overcrowding of individual sites, and ensure the preservation of the cultural and natural values of the area.

8.4. Conclusions from the analysis

According to the legislation of the Kyrgyz Republic, some project activities may be subject to the requirements of the national environmental impact assessment procedure and state environmental expertise (SEE).

Taking into account the requirements of the World Bank ESSs and the status of the CST sites as historical and cultural heritage included in the UNESCO list, a full environmental and social impact assessment (ESIA) of the planned activity was prepared. This assessment systematically covers both environmental and social aspects, including labor and working conditions, community health and safety, stakeholder engagement, cultural heritage, and potential livelihood impacts.

Cultural heritage sites are considered within the context of following aspects as part of environmental and social assessment:

1. Internationally recognized cultural heritage communities that use or have used cultural heritage for their cultural purposes over a long period of time.
2. Cultural heritage sites under legal protection, which have official status and are protected by law.

In light of these factors, the environmental and social risks to cultural heritage require particular attention during the implementation of the project. Legislative protection plays a key role in safeguarding cultural heritage, and the implementation of projects in such areas requires compliance with additional approval procedures in accordance with national legislation. Where project activities are carried out within protected areas or buffer zones, the developer is obliged to:

- comply with national or local heritage regulations and the applicable management and conservation requirements for the Sulaiman-Too World Heritage property and its buffer zone;
- consult with protected area sponsors, local communities and other key stakeholders;
- implement additional programmes to achieve and enhance the conservation objectives of the protected area.

The Structural Analysis and Heritage Impact Assessment (HIA) reports highlight that the proposed changes are minimal and do not pose significant environmental or social risks to the heritage assets. These improvements build on previous interventions that already exist on the site and are intended to enhance functionality while remaining minor in nature.

The project aims to conserve and enhance cultural assets while maintaining minimal environmental and social impact. Works such as repairs, landscaping, installation of signs and street furniture are generally considered minor interventions and are not typically associated with significant environmental or social impacts. Section 4, Project Description, provides before and after images to illustrate minor changes.

In addition, the project team conducted extensive stakeholder consultations, including several rounds of meetings with clients, the Ministry of Culture, the World Bank, and UNESCO, to assess the potential impacts of the interventions on cultural heritage sites. These interactions were carefully documented in the HIA (see Section 3 for details).

Through this process, stakeholder recommendations and inputs were integrated into the planning and design stages to ensure compliance with best practices in heritage conservation. Section 2 of the HIA also provides a detailed review of Kyrgyzstan's legal framework and heritage conservation principles, ensuring that the project complies with local legal standards.

The overall environmental and social risk classification of the Project is **Substantial**, primarily due to the high sensitivity, cultural significance and protected status of the heritage sites, including the UNESCO World Heritage property. This classification is driven by the sensitivity of the Project locations rather than by the scale of the proposed works. The individual impacts associated with the proposed small-scale construction activities are generally assessed as short-term, localized, manageable and predominantly Moderate, subject to effective implementation of the mitigation and monitoring measures set out in the ESIA, HIA and ESMP.

The assessment of potential impacts on intangible cultural heritage conducted in accordance with ESS8 indicates that the planned interventions will not result in direct or irreversible impacts on intangible cultural values associated with the Sulaiman-Too Complex and the Uzgen Historical and Architectural Complex. Potential risks related to increased visitor attendance are considered manageable and can be effectively addressed through the implementation of visitor flow management measures envisaged by the Project.

Thus, the analysis and impact assessment of the technical solutions presented in this and other Project reports allow the following conclusions:

- The individual risks and impacts associated with the planned technical solutions are assessed as Moderate, while the overall environmental and social risk classification of the Project is Substantial due to the sensitivity and protected status of the heritage sites.
- Given the exceptional cultural value and protected status of the heritage sites, special attention should be paid to the implementation of mitigation and monitoring measures throughout all stages of Project implementation.

Within the framework of this Project, which is aimed at minimal intervention in cultural heritage sites, the ESIA confirms that the proposed construction works will have limited, short-term and manageable impacts. The implementation of the Environmental and Social Management Plans during construction will ensure effective mitigation of potential risks and preservation of the cultural and historical value of the sites.

8.5. Assessment of potential impacts

The positive benefits of this project include the development of tourism and attracting both foreign and local tourists, improving infrastructure in the cities of Osh and Uzgen, and creating jobs during the reconstruction process as well as for local residents. A particularly significant benefit will be improved accessibility for people with disabilities. Thanks to these design solutions, both the STC and the UHAC will be almost entirely accessible to people with disabilities. The specific technical solutions will be finalised during the final design documentation stage. The project also contributes to the preservation of cultural heritage, restoration of historical sites, and increased interest in the region, which may lead to economic growth, improved conditions for small and medium-sized businesses (especially in tourism and services), as well as the creation of new cultural and educational spaces such as museums and cultural centers.

Potential negative impacts include temporary inconveniences for local residents, such as access restrictions, noise, and dust, the risk of damage to cultural heritage and loss of authenticity, possible environmental deterioration during construction (emissions, waste), social risks related to changes in the local community dynamics, temporary access restrictions to historical sites, and risks to workers such as potential injuries or exposure to chemicals.

To minimize restrictions on access to religious and cultural heritage sites, construction activities will be phased and organized to maintain safe access wherever feasible. Where an existing route must be temporarily closed, a safe alternative route shall be provided. Where continuous access cannot be maintained for safety reasons, access may be allowed on agreed days or during specified hours. These

arrangements shall be determined in consultation with the museum administration, traditional users and their representatives, communicated in advance, and reflected in the relevant site-specific C-ESMP.

Potential adverse Impact

This section presents an analysis of the potential impacts on the physical, cultural, and socio-economic environment in the project subzones during the planning, rehabilitation/construction, and operation/maintenance stages of the proposed intervention aimed at restoring cultural heritage sites. The impacts were identified through a screening checklist (environmental and social presented in Annexes 2, 3, 4,) technical and design solutions considering environmental, social, and cultural conditions, literature review, primary and secondary data, as well as expert evaluation. The environmental and social impact assessment considers not only the heritage sites themselves but also the surrounding areas. Measures were proposed to reduce, minimize, or compensate for the identified potential impacts of the restoration activities.

Impact Assessment Scale

To assess the impact of the proposed heritage rehabilitation on the environment, the following steps were conducted:

- Baseline Monitoring of Cultural Heritage Conditions: Evaluation of existing conditions at the heritage sites and in nearby communities.
- Data Analysis: Thorough study of primary and secondary data regarding environmental and cultural parameters in the vicinity of the sites.
- Examination of Restoration Designs: Review of engineering studies and designs to understand the scale and approach to restoration.
- Community and Stakeholder Consultation: Involvement of local authorities, affected community members, and cultural and religious leaders to identify concerns.
- Stakeholder Consultations with Relevant Authorities: Discussions with relevant government and cultural heritage agencies to address potential impacts.

Worker and Community Health and Safety

- *For the Community:*

Risks: Restricted access to heritage sites during restoration works, impact on local tourism, road damage from heavy machinery, improper waste disposal, and unsanitary conditions at the restoration sites.

Mitigation Measures: Ensure safe pedestrian and vehicular access, adequate lighting, waste management, and sanitary conditions.

- *For Workers:*

Risks: Health risks related to working with hazardous materials (e.g., lead-based paints, asbestos) and fragile structures.

Mitigation Measures: Compliance with occupational safety and health standards, provision of personal protective equipment (PPE), and safe living conditions, including sanitation and clean water.

Health and Safety Risks During Restoration

- *For Visitors:*

Risks: Temporary restrictions on access to cultural heritage sites.

Mitigation Measures: Installation of fencing and signage, safe waste disposal, and maintaining sanitary conditions.

- *For Workers:*

Risks: Exposure to hazardous materials and unsafe working conditions.

Mitigation Measures: Strict adherence to safety regulations, PPE usage, training, provision of basic amenities (clean water, rest areas).

Labor and Working Conditions

Risks:

Given the small scale of the rehabilitation projects, major labor risks are minimal. Most contractors will hire locally, reducing concerns about labor influx, but they must comply with national labor laws and the World Bank's standards to mitigate gender-based violence risks.

Mitigation Measures: All workers will be employed under written contracts with clear terms on compensation, safe working conditions, and grievance mechanisms. Gender-based violence risks will also be mitigated.

Heritage Impact Assessment

- *Direct Impacts:*

Risks: Physical interventions, such as structural repairs and façade restoration, may affect the integrity, aesthetics, or functionality of heritage objects.

Mitigation Measures: Careful management of restoration works to preserve the cultural and historical authenticity of heritage sites.

- *Indirect Impacts:*

Risks: Changes to the landscape, visitor access, and social dynamics of the local community may affect both tangible and intangible cultural heritage.

Mitigation Measures: Conduct surveys with tradition-bearers to assess their views on the project's impact on cultural practices and customs, support local festivals, restore natural elements used in cultural practices, and create conditions for maintaining traditions in modified environments.

Chance Finds Procedure

Risks:

The discovery of archaeological artifacts during excavation or restoration works.

Mitigation Measures: Work must stop immediately if artifacts are found, and relevant authorities must be notified. Contractors are responsible for following this protocol, with technical supervision ensuring compliance.

Social and Economic Impacts

Risks:

Minimal disruptions to local communities due to temporary access restrictions during construction. During the construction works, temporary inconveniences may occur for visitors to the museums and cultural heritage sites, as well as for individuals who sell national souvenirs seasonally or engage in other activities near the project sites.

The analysis conducted indicates that implementation of the Project's construction works will **not** require the complete closure of museums and cultural heritage sites to visitors. Construction activities will be organized in such a way as to ensure continued, though potentially partially restricted, visitor access to these sites throughout the construction period. Temporary restrictions will be localized and short-term in nature, affecting specific areas and routes rather than the site as a whole.

Due to temporary fencing of construction areas, changes in pedestrian routes, and traffic management within the works zone, a minor temporary reduction in tourist and visitor flows to the museums and cultural heritage sites cannot be excluded during certain periods of construction. However, given the limited scale and temporary nature of such restrictions, as well as the planned measures for visitor information and provision of alternative access routes, this reduction in visitor flow is expected to be insignificant and short-term.

Since seasonal vendors of national souvenirs and other small-scale service providers conduct their activities outside Museum's territroy, on adjacent municipal land under the jurisdiction of Osh City, no direct physical impact on their trading locations (land take, removal of trading structures) is anticipated. A possible minor reduction in tourist flow during certain construction periods may indirectly affect the sales volume of individual vendors; however, given the informal and seasonal nature of this trading activity, the absence of designated/fixed trading spots, and the generally minor scale of the anticipated reduction in visitor numbers, no significant or long-term impact on the livelihoods and income of this category of persons is predicted.

Accordingly, the assessment concludes that the measures envisaged by the Project for organizing construction works — including advance notification of stakeholders, phased fencing of the construction area, and maintenance of alternative access routes — are considered sufficient to minimize potential impacts on visitors to the sites and on the activities of seasonal vendors and small-scale service providers operating outside of Museum's territory

Mitigation Measures: Positive socio-economic impact by supporting cultural heritage and tourism development, enhancing the region's attractiveness for local and international visitors, improving infrastructure, and creating jobs.

Advance notification of local community representatives and other interested parties about the types of construction works, their timelines, and dissemination of information about the GRM (Grievance Redress Mechanism).

Social Environment and Cultural Heritage:

Impact: Landscape disturbance, access to cultural heritage sites.

Mitigation Measures: Landscape restoration, installation of protective barriers around heritage sites, access control.

Environmental Risks and Mitigation

- *Air Quality:*

Impact: Dust, exhaust gases, emissions from welding and waste incineration.

Mitigation Measures: Soil irrigation, covering of loads, maintenance of equipment, ban on waste incineration, proper storage of flammable materials.

- *Water Resources:*

Impact: Potential flooding and sewage pollution.

Mitigation Measures: Construction of drainage channels, waste removal organization, fencing of drainage areas, safe laying of pipes.

- *Soil:*

Impact: Soil pollution from waste and leakage of fuels and lubricants.

Mitigation Measures: Containers for waste collection, ban on storage of fuels and lubricants on-site, regular leakage checks.

- *Noise and Vibration:*

Impact: Noise and vibration from heavy equipment.

Mitigation Measures: Limiting working hours, installing temporary noise barriers, monitoring vibrations.

- *Worker Health and Safety:*

Impact: Health and safety hazards for workers.

Mitigation Measures: Provision of PPE, training, restricted access, incident records.

- *Vegetation and Wildlife:*

Impact: Loss of vegetation and displacement of wildlife.

Mitigation Measures: Compensatory planting, use of low-noise equipment, prevention of hunting.

Climate Change

Impact: The project will not lead to greenhouse gas emissions or adverse impacts on the climate.

Mitigation Measures: No additional measures are required, as the project does not affect climate change.

Specific Risks and Potential Impacts Related to Cultural Heritage (ESS8)

In addition to the general environmental and social impacts described above, the Project involves rehabilitation works within officially protected cultural heritage sites of high historical, religious, and symbolic significance. Due to the protected status and cultural value of the Sulaiman-Too Complex and the Uzgen Historical and Architectural Complex, even limited physical interventions may result in irreversible or disproportionate impacts on heritage attributes.

For this reason, specific risks and potential impacts related to cultural heritage are assessed separately below.

Design Stage

At the design stage, the primary risks relate to preservation of authenticity and historical integrity:

- Loss of authenticity due to inaccurate documentation, misinterpretation of historical layers, or design solutions inconsistent with original architectural features.
- Use of incompatible materials or construction techniques that may affect structural behavior, visual integrity, or long-term conservation.
- Insufficient integration of conservation principles, including limited consideration of traditional construction methods and historical context.

Design-stage deficiencies may lead to long-term or irreversible alteration of the cultural value of the sites.

Rehabilitation / Construction Stage

During physical interventions, the following risks are relevant:

- Irreversible alteration of protected structural, decorative, or archaeological elements.
- Damage caused by vibration, excavation, or use of mechanical equipment, particularly in areas with fragile or undocumented features.
- Accidental destruction of previously unidentified archaeological remains.
- Theft, loss, or improper handling of movable heritage items.

Given the presence of tangible and potentially undocumented heritage assets, the magnitude of impact at this stage may be significant if not properly controlled.

Operation Stage

During operation, risks relate to long-term preservation and site use:

- Visitor pressure, including overcrowding or inappropriate use, potentially affecting structural stability and surface integrity.
- Gradual degradation of authenticity due to inappropriate maintenance or modern alterations.
- Indirect effects on intangible cultural heritage, including changes in traditional practices, religious use, or community cultural dynamics.

Although these impacts may develop gradually, cumulative effects may influence the overall heritage value of the sites.

Considering the high cultural significance and protected status of the sites, potential adverse impacts on heritage value are considered potentially significant in the absence of conservation-sensitive approaches. With appropriate design, technical supervision, and adherence to national cultural heritage protection requirements, impacts are expected to remain limited and largely reversible.

8.6. Mitigation measures

The Environmental and Social Management Plan (ESMP) also functions as an Integrated Cultural Heritage Management Plan for the STC and UHAC reconstruction.

It consolidates all measures for environmental protection, occupational health and safety (OHS), and heritage preservation within one operational framework and follows the risk-mitigation hierarchy — avoidance, minimization, restoration, and compensation.

The ESMP incorporates:

- Detailed Chance Finds Procedure, defining clear steps for discovery, protection, and reporting of artifacts (see Table 6).
- Specific heritage-related risks identified in Section 8.5, including authenticity, theft, damage, and OHS hazards, with corresponding mitigation and monitoring measures.
- Specific procedures for the protection of existing artifacts, museum exhibits, collections, archival materials, and other movable cultural objects during works. These procedures include pre-construction inventory and condition recording, authorized relocation or in-situ protection, controlled access and physical security, relevant prohibitions in workers' Codes of Conduct, mandatory training, incident reporting, and post-work verification.
- Collaboration requirements with historians, archaeologists, architects, conservators, and local communities to ensure restoration accuracy and sensitivity.
- OHS and Life & Fire Safety measures are aligned with the World Bank Group (2007). General EHS Guidelines: Community Health and Safety, Section 3.3 – Life and Fire Safety (L&FS)[2]. Washington, D.C.
- Contractor's responsibilities, including preparation of site-specific EHS checklists, adoption of a Code of Conduct for workers, and mandatory pre-construction safety and cultural-awareness training.
- Clear assignment of responsibilities and costs, presented in Tables (Mitigation, Monitoring, and Budget).

Implementation of these measures will be carried out in coordination with the Heritage Impact Assessment (HIA) findings and under the oversight of the Ministry of Culture and the museum authorities responsible for the STC and UHAC sites.

This integrated approach ensures that all restoration and construction activities are implemented safely, transparently, and in accordance with both national heritage protection laws and the World Bank Environmental and Social Standards (ESS1, ESS2, ESS4, and ESS8).

[2] https://www.ifc.org/content/dam/ifc/doc/2000/2007-general-ehs-guidelines-community-health-and-safety-en.pdf.

The ESMP table identifies potential environmental and social impacts associated with the project activities, as well as proposed mitigation measures, their impact assessment, mitigation and monitoring responsibilities, and the associated budget.

Prior to project implementation, sites must undergo a site-specific environmental and social impact assessment using screening checklists to assess the exact level of risks and determine the necessary mitigation measures to be included in specific ESMPs.

Mitigation measures in this ESMP are developed in line with the mitigation hierarchy (avoidance, minimization, mitigation, monitoring and, where applicable, compensation) and are proportionate to the scale and sensitivity of cultural heritage sites.

The types of potential risks and the corresponding mitigation measures are presented in Table 6 below.

Table 6. Environmental and Social Management Plan (ESMP)

№	Environmental and social elements	Impact	Measures to mitigate environmental and social impacts	Institutional accountability for the implementation of measures	Cost of measures to reduce environmental impact
Construction stage					
Physical environment					
1	Atmospheric air quality	• Earthmoving and demolition work: dust generation	• Hydro-irrigation of soil to avoid dust formation during excavation works. • Covering bulk materials brought to and from the construction site.	1) The Contractor shall be responsible for implementing mitigation measures. 2) The Engineer is responsible for monitoring and supervision of the measures 3) Inspection control of construction sites will be carried out by ARIS 4) State control by the authorized state body	Included in the eligibility criteria and technical specifications of the bidding documents and contracts, and to be reflected in the Bill of Quantities (BoQ) and the Contractor's cost estimate under temporary and general construction works. The Contractor shall allocate sufficient resources (water supply, equipment, and personnel) to ensure regular water spraying of construction areas and access roads during dry and windy conditions. The frequency and adequacy of implementation shall be monitored by the Engineer and recorded in the site supervision logs.
		• Transportation and construction equipment on site: exhaust fumes	• Timely maintenance of machines and mechanisms		
		• Delivery of construction materials to the site by truck: exhaust emissions and dust generation	• Trucks used for transportation of inert materials should be covered with tents. • Vehicles and construction equipment should have an inspection certificate; • Exhaust systems of vehicles and construction equipment should be in good condition to minimize air pollution; • Preventing machinery from idling. • Limit vehicle speeds and select appropriate transport routes to minimize dust emissions;		
		• Waste incineration on construction site	• It is forbidden to burn construction and household waste at the work site.		
		• Welding, insulation, finishing and repair works: pollutant emissions into the atmosphere	• Organization of proper storage and transportation of flammable and hazardous materials (gas cylinders, electrodes, bituminous materials, paints, solvents).		
2.	Water resources	There is one surface water body in the vicinity of the project area - the Ak-Buura River. Since it is located at a distance of about 800 m from the project area and is separated by residential neighborhoods, the project works will not have any impact on it. The project envisages construction of storm water drains under the pedestrian walkways.	• To prevent flooding, it is necessary to construct storm water drainage channels/ lateral drains in advance as envisaged by the project. • To ensure storm water drainage and avoid flooding, it is proposed to construct drainage of one of the tracks in advance with simultaneous reconstruction of the other track. • The drainage shall be barricaded during construction to prevent a person from falling into the trench • Public outreach will be organized to avoid dumping debris into storm drains during construction. • Signs will be placed over the drains to disseminate information.	1) The Contractor shall be responsible for implementation of the mitigation measures. 2) The Engineer is responsible for monitoring and supervision of the activities. 3) Inspection control of construction sites will be carried out by ARIS 4) State control by the authorized state body	The cost of mitigation measures will be determined by the design documentation during the preparation of the Detailed Design. BoQ.

			• Waste generated from construction activities shall be stored in an appropriate temporary location on the site, which shall be appropriately barricaded and covered to avoid stormwater runoff. • The waste storage location will be selected in coordination with the Engineer in accordance with the approved construction plan. • Solid waste associated with excavation activities shall be disposed of at the landfill. • The rehabilitated sewerage network will connect to the existing network outside the project area. Therefore, it is necessary to ensure safe laying of the mains: • Design and installation of the sewerage network, including trenching, pipe bedding, backfilling, structural checks and load-bearing requirements, shall comply with the approved design, technical specifications and bidding documents and be supervised by the Engineer.		
3	Soil	Soil contamination with liquid and solid domestic waste, construction waste and fuel and lubricant spills, chemical spills (paints, solvents…).	• Ensure installation of containers for garbage and solid waste collection at construction sites. • Timely removal of construction waste. • Timely cleaning of territories from oil products in case they get on the soil; • Refueling of vehicles will be carried out at specialized gas stations. • Use of vehicles that have passed technical inspection; • Storage and stockpiling of fuel and lubricants on construction sites is prohibited • Washing and maintenance of vehicles on site is not permitted and the contractor must ensure that well repaired and cleaned vehicles enter the site. • Regular inspections will be carried out to detect leaks in construction vehicles and equipment.	1) The Contractor shall be responsible for implementation of the mitigation measures. 2) The Engineer is responsible for monitoring and supervision of the activities. 3) Inspection control of construction sites will be carried out by ARIS 4) State control by the authorized state body	The cost of mitigation measures will be determined by the design documentation during the preparation of the Detailed Design. BoQ.
4	Construction waste and garbage	Typical solid waste generated during construction includes waste concrete, empty cement bags, excavated soil, etc. If not properly handled and disposed of, solid waste can have a negative impact on the environment. They can clog nearby drainage channels, which can eventually lead to localized flooding during rains and cause inconvenience to the population.	• Prior to the commencement of works, determine the methods of waste collection and disposal, as well as the locations of the main types of waste generated during demolition and construction works. During the construction phase, appropriate color-coded containers shall be installed at all sites to collect and segregate general waste. • Inert construction and demolition waste, including concrete, bricks, stone, soil and other non-hazardous materials, shall be segregated from organic, liquid, chemical and other waste and disposed of at an authorized location.	The Contractor shall be responsible for implementing mitigation measures and ensuring proper waste segregation, storage, transportation and disposal in accordance with the Waste Management Plan.	Removal of waste to disposal or use sites is at the expense of the contracting organization. The cost of mitigation measures will be determined in the design documentation during preparation of the Detailed Design. BoQ.

		Construction waste will include sediments from existing drainages, top layers, asbestos pipes. Existing asphalt layers will be scarified and disposed of in special landfills approved by the relevant authorities. Existing base and subgrade material will be removed and reused as subgrade after mixing and grading the subgrade in accordance with the project specifications. Improper waste management will adversely affect the aesthetics of the environment in the short term. It may also degrade air quality.	• All materials and records of waste removal and disposal shall be properly maintained as evidence of proper waste management at the site in accordance with the project. • Recycling of inert material waste (except asbestos) shall be allowed whenever possible. • Construction waste shall be removed at the contractor's expense to storage and disposal sites. • The Contractor shall conclude a Contract with a specialized organization having a License for hazardous waste disposal/disposal. • All hazardous waste such as paint waste (paint waste, drums and rollers/brushes) shall be handed over by the Contractor to a specialized hazardous waste disposal organization having a License. • Recycling of solid waste such as cement bags, empty drums, discarded bricks, etc. will be carried out as far as possible and feasible. • The working staff should be trained in waste identification, segregation and handling. • A site-specific waste management plan will be developed by the Contractor.	The Engineer is responsible for monitoring and supervision of the measures Inspection control of construction sites will be carried out by ARIS State control shall be carried out by the authorized state body The Mayor's Office (Local Self-Government Body) is responsible for oversight of municipal waste disposal arrangements, coordination with authorized landfill operators and ensuring compliance with local waste management regulations.	
		Asbestos-containing waste: contamination of adjacent territory and negative impact on human body	• Asbestos-containing materials / waste should be stored in specially designated places within the construction site, with neutralization by burial • Observe safety measures when working with asbestos-containing materials. • Personnel should wear personal protective equipment (masks, protective gloves and overalls). • If necessary, before removing asbestos-containing material from the area, treat with a wetting agent to minimize the release of asbestos dust. • Eliminate reuse of asbestos-containing materials.		
5	Rehabilitation of road/street sections	• Removal of the existing alignment generates waste, dust from scarification of existing layers (old asphalt, unsuitable soil) of the road, as well as noise and vibration due to unconfigured or old machinery.	• Waste will be properly disposed of at designated landfill sites • Updated and adjusted machinery will be used to minimize noise impacts • Water shall be sprayed on exposed surfaces and access roads at regular intervals to control dust. • Appropriate respiratory protection and hearing protection, including dust masks and ear muffs or ear plugs shall be provided to workers to exposed to dust and noise. • The contractor shall ensure that construction debris does not accumulate on the construction site or interfere with traffic flow. • Removed old asphalt and unsuitable soil may be reused to backfill secondary streets, country roads.	1) The Contractor shall be responsible for implementing mitigation measures. 2) The Engineer is responsible for monitoring and supervision of the measures 3) Inspection control of construction sites will be carried out by ARIS 4) State control by the authorized state body	Removal of waste to disposal or use sites is at the expense of the contracting organization. The cost of mitigation measures will be determined in the design documentation during preparation of the Detailed Design. BoQ.

			• Monitoring of the progress of works on utilization of removed old asphalt and unsuitable soil • Registration in special logs of the volumes of removed old asphalt and unsuitable soil		
		• Paving of the base and subbase layer generates road dust and vibration during compaction of the road surface.	• Water sprinkling will be carried out to reduce dust during the road construction stage. • High-vibration equipment and work methods shall not be used near heritage structures unless specifically assessed and approved by the Engineer and cultural heritage specialist. Low-vibration or manual methods shall be used wherever feasible.		
		• Paving of the top layer is associated with potential safety issues when asphalt is placed on the road, as the temperature of asphalt generally exceeds 150^{0}C.	• Workers will be provided with safety shoes, gloves, safety helmets, etc. according to the nature of the work to be performed. • Alternative routes will be provided during construction work. • The construction area will be cordoned off during the laying of asphalt on the road. • Vehicular traffic will be restricted until the road is paved or compacted. • Weather conditions such as air temperature, air currents and precipitation shall be taken into account during the work.		
6	Noise	The main sources of noise during construction are heavy machinery such as bulldozers, excavators, stabilizer cranes, other equipment, etc.	• Work of construction equipment and mechanisms causing noise impact should be carried out during daytime hours from 07:00 a.m. to 06:00 p.m. • Noise-generating construction works at the Sulaiman-Too Complex in Osh and the Uzgen Historical and Architectural Complex in Uzgen, shall be carried out during daytime hours from 07:00 a.m. to 06:00 p.m. The work schedule shall be coordinated with the local authorities and relevant site administration. • Use temporary noise barriers during works in sensitive areas where exceedance of permissible limits is expected. Construction metal barriers/sheets will be provided to reduce noise and dust levels.	1)The Contractor shall be responsible for implementing mitigation measures. 2)The Engineer is responsible for monitoring and supervision of the measures 3)Inspection control of construction sites will be carried out by ARIS 4)State control by the authorized state body	Criteria/specifications for inclusion in tender and contract documents. Not considered as a separate item of expenditure
7	Vibration	Demolition, excavation and compaction works. Some activities during the construction stage may result in significant propagation of construction vibration, which in turn may affect nearby buildings/structures and other MOCN.	• Condition Survey - No later than 28 days prior to commencement of construction activities, the Contractor and the Engineer will conduct a joint condition survey of all buildings/structures that, in the opinion of the Engineer, may be affected by vibration resulting from the Contractor's construction activities. The results of the building condition surveys shall be documented in reports that shall contain, at a minimum, the following information: • Address and location of the building/structure;	1) The Contractor shall be responsible for implementing mitigation measures. 2) The Engineer is responsible for monitoring and supervision of the measures 3) Inspection control of construction sites will be carried out by ARIS	Criteria/specifications for inclusion in tender and contract documents. Not considered as a separate item of expenditure

			• A description of the condition of the building/structure and any cosmetic defects and/or damage; • Sketches and photographs showing the location and extent of damage; and high-resolution video recordings of the buildings/structures surveyed; • Construction Vibration Management Plan - Within 28 days after the Commencement Date, the Contractor shall submit a written Construction Vibration Management Plan (CVMP) to the Engineer for review and for approval of detailing vibration monitoring and control procedures. Such plan shall include: • Measurement locations and methods; • Method statements for work that may cause vibration, including trial construction site programs to determine the probable magnitude of vibration at specific distances from the vibration source, in sufficient detail to enable the Contractor to develop a final method of construction without excessive vibration; • Methodological guidelines for the management of all the above-mentioned sections of the MOKN; • A description of the instruments and equipment used; • Copies of operating and certification manuals for laboratory calibration and testing equipment; • Resumes of vibration monitoring technical support personnel sufficient to identify details of relevant experience; • Procedures for data collection and analysis; • Frequency of measurements; • Means and methods of warning about reaching the specified construction vibration limits; and • Action plans to be implemented if the specified construction vibration limits are reached. Generalized Action Plans shall include the Contractor's affirmative measures to control vibration using alternative construction methods. • Vibration Monitoring - The Contractor shall install a vibration monitoring and control system in accordance with an Construction Vibration Management Plan approved by the Engineer and shall measure vibration resulting from construction activities at predetermined points in accordance with the EIR. • Where construction activities with potential vibration effects are proposed near heritage structures, they shall be subject to prior assessment and approval by the Engineer and cultural heritage specialist. Where required, the Contractor shall prepare a Construction Vibration Management Plan defining monitoring locations, parameters, threshold values and stop-work procedures.	4) State control by the authorized state body.	

			Monitoring shall be conducted in accordance with the approved plan and relevant design requirements. • All vibration monitoring data shall be recorded simultaneously and continuously plotted using data acquisition equipment. Each graph shall display the wave traces in the time domain (particle velocity versus time) for each measurement location with the same scale on the vertical and horizontal axes. • Alternative Construction Methods - If vibration monitoring results indicate that a specified construction vibration limit is being reached at a particular location, the Contractor shall suspend construction activities causing increased vibration at that location, notify the Engineer, and with the Engineer's approval, implement vibration mitigation measures necessary to keep construction vibration within the specified limit.		
8	Organization of the construction site and dismantling of the site after completion of construction works	An adverse impact may occur if the Contractor fails to ensure that the area is cleared of construction debris, production waste and reclamation of disturbed land during the construction process	• Ensure removal of all waste and construction waste from the facilities for disposal at the municipal authorized construction waste landfill in accordance with the concluded Waste Removal Contract. Ensure removal of materials, dismantled equipment, etc.);	1) The Contractor shall be responsible for implementing mitigation measures. 2) The Engineer is responsible for monitoring and supervision of the measures 3) Inspection control of construction sites will be carried out by ARIS 4) State control by the authorized state body	Contractor's costs
9	Occupational health and safety. Safety and health of workers	Health risks and worker safety concerns may arise in the workplace if working conditions provide an unsafe and/or unsuitable working environment due to the storage, handling and transportation of hazardous construction materials. Employees will be provided with safe and healthy working conditions, taking into account industry-specific risks and specific classes of hazards in the Project area	• Prior to commencement of construction work, the Contractor shall prepare and implement site-specific OHS Plan and related checklists consistent with applicable national requirements, the World Bank Group EHS Guidelines, and the project-specific OHS measures set out in the ESIA and ESMP. • The Contractor's site-specific OHS Plan shall include emergency preparedness and response arrangements covering seismic events, fire, structural instability and other foreseeable emergencies, including evacuation routes, assembly points, communication procedures, responsible persons, first aid arrangements and periodic drills. • Specific OHS measures for work at height and below ground level, including fall protection, confined-space entry procedures and worker training, shall be included in the site-specific OHS Plan and	1) The Contractor shall be responsible for implementing mitigation measures. 2) The Engineer is responsible for monitoring and supervision of the measures 3) Inspection control of construction sites will be carried out by ARIS 4) State control by the authorized state body	Contractor's costs

			implemented in accordance with national requirements and the World Bank Group General EHS Guidelines. • The Contractor's site-specific OHS Plan and Emergency Preparedness and Response Plan shall include fire and life safety measures for construction activities, including hot works, temporary electrical installations, storage of combustible materials, fire-fighting equipment, unobstructed evacuation routes, separation of construction areas from public areas, and response to seismic events. • Before accessing the construction site, all workers undergo mandatory induction training, covering occupational health and safety, compliance with the Code of Conduct, prevention of sexual exploitation and harassment (SEA/SH), emergency procedures, and procedures for dealing with accidental discoveries. • The Contractor maintains records of completed training and briefing logs for review by the Engineer and the Client. • Only authorized persons will be allowed to enter the construction site; • Local inspections controlling construction works and environmental safety will be duly notified of the forthcoming project works. • All work shall be performed in a safe and disciplined manner and organized so as to eliminate work-related injury • Ensure that the necessary first aid equipment is available at the workplace; • Ensure the availability of appropriate personal protective equipment (PPE) to minimize risks, such as appropriate safety clothing, safety shoes and gloves, safety helmets, safety glasses, safety harnesses according to the specifics of the production; • Ensure that employees are trained in the use of PPE; • Labor laws will be enforced, including minimum wages, protection against harassment of women, working hours, and overtime pay. • In addition, workers will be trained on how to properly interact with the local community, especially women; • There will be procedures for documenting and reporting accidents, illnesses and incidents; and • All precautions will be taken to eliminate safety hazards to residents of the surrounding communities. These precautions may include warning signs, safety barriers around the construction site. • The lighting provided for the workers at night shall be adequate but spot lighting that does not cause inconvenience to the residents of nearby houses. • The project ESMP will be included in the bidding documents;		

			• Adequate directional and informational signage will be placed at the site to inform the workers of the basic rules and regulations of the work to be carried out. • Restrict public access to construction sites and other hazardous areas and install; • Keep a log on registration of citizens' appeals and complaints.		
		Prevention of infection	• It is necessary to avoid crowds of people, keep a distance of 1.5 -2 meters with interlocutors; • Wash hands with soap and water thoroughly after returning from the street, contacts with strangers; • Disinfect gadgets, office equipment and surfaces you touch; • Use only personal hygiene items (towel, toothbrush); • Carry at least 70% alcohol-based antiseptic and paper napkins; • Ventilate the working room every hour for 15 minutes (air circulation - air draft); • Dispose of used personal protective equipment (masks, gloves and wipes) in a cellophane bag, tightly tied and thrown in the trash and after treating hands with antiseptic; • In case of symptoms of acute respiratory infections (fever, dry cough, breathing difficulties), inform the management and stay at home.	1) The Contractor shall be responsible for implementing mitigation measures. 2) The Engineer is responsible for monitoring and supervision of the measures	Contractor's costs
Biological environment					
10	Flora	Loss of vegetation is expected to be low in the event of museum construction. The number of trees/shrubs will be determined only at the stage of development of the Working Design for the construction of the museum	• Replanting will utilize native trees that are best suited to the site; • Attempt will be made to preserve as many trees as possible, even if they are young or in the pollination stage. Adequate watering and plant care will be provided; • Compensatory planting of 1:5, i.e. five trees to replace each tree felled • Sites and complexes will be placed in such a way as to avoid unnecessary cutting of vegetation; • Re-planting of trees (if any) along trails shall give preference to flowering and fruit bearing trees to beautify the landscape. • Contractor's personnel and laborers will be strictly instructed not to damage vegetation such as trees or shrubs. • Tree Planting Plan shall be developed by the Contractor and approved by the Consultant	1) The Contractor shall be responsible for implementing mitigation measures. 2) The Engineer is responsible for monitoring and supervision of the measures 3) Inspection control of construction sites will be carried out by ARIS 4) State control by the authorized state body	The cost of mitigation measures will be determined by the design documentation during the preparation of the Detailed Design. BoQ.
11	Fauna	The fauna of the Project area is described above in the Existing Environmental Condition section. The Project may displace birds/animals (rodents) from their nests and burrows in the vicinity of the Project area.	• Project is not expected to result in significant irreversible changes to local biodiversity. The project will not affect specific unique wildlife habitats as the project will not create any major impediments to the movement of wildlife and birds. Any disturbance to wildlife would be temporary (only during the pre-construction period and during	1) The Contractor shall be responsible for implementing mitigation measures. 2) The Engineer is responsible for monitoring and supervision of the measures	Contractor's costs

		Reptiles such as snakes and lizards living in burrows or underground would either die or move to neighboring areas. Similarly, birds nesting in trees located in the vicinity of the project area will be adversely affected and will be forced to relocate to adjacent areas.	construction itself), and animals (including birds) would be able to move around or over construction sites. • Local wildlife protection, conservation, and preservation laws will be strictly enforced. • Shooting, hunting or poaching of endangered species should be completely prohibited, and violators should be subject to severe fines and penalties for such offenses. • New and serviceable machinery with minimum noise levels will be used in construction; • Noisy works will not be carried out at night so as not to disturb local birds and animals; • The Contractor will ensure that no hunting or trapping of animals will occur during construction; • The excavations will be fenced so that large animals cannot fall in; • Special measures will be taken to minimize impacts on wild birds, such as avoiding noise disturbance during the critical breeding period.	3) Inspection control of construction sites will be carried out by ARIS 4) State control by the authorized state body	
Social environment					
12	Aesthetics and landscape	Landscape disturbance can be associated with the accumulation of construction debris	• Upon completion of the works, planning and restoration works will be carried out on the territory adjacent to the site	1) The Contractor shall be responsible for implementing mitigation measures. 2) The Engineer is responsible for monitoring and supervision of the measures 3) Inspection control of construction sites will be carried out by ARIS 4) State control by the authorized state body	The cost of mitigation measures will be determined by the design documentation during the preparation of the Detailed Design. BoQ.
13	Communities	Complaints	• Installation of information banners at construction sites indicating contact details. • Advance notification of local community representatives, relevant local authorities, and other stakeholders about the commencement of works, types of planned construction activities, and estimated timelines. • Minimize, and where possible, completely eliminate potential project impacts on local community members engaged in entrepreneurial or other activities near the project sites. • Dissemination of information about the Grievance Redress Mechanism (GRM).	The Contractor shall be responsible for the implementation of environmental and social mitigation measures. The technical supervision is responsible for monitoring and supervision activities ARIS specialists, regional supervision is responsible for general supervision.	Criteria/ specifications to be included in the tender and contract documents. Not regarded as a separate item of expenditure.

14	Tangible cultural heritage sites (TCHS) and movable cultural objects	The project is aimed at Reconstruction and modernization of the existing infrastructure of historical and cultural heritage sites: Sulaiman-Too Complex and Uzgen Historical and Architectural Complex. Risk of theft, unauthorized removal, loss, accidental damage, destruction, contamination, or improper handling of existing artifacts, museum exhibits, archival materials, and other movable cultural objects during construction and rehabilitation works.	• Reconstruction and restoration works shall be carried out in consultation with qualified historians, archaeologists, conservation architects and cultural heritage specialists, in coordination with the Ministry of Culture and relevant heritage authorities, to ensure preservation of authenticity and compliance with national and international conservation standards. • Install protective fencing around sensitive areas to prevent accidental damage from construction equipment and pedestrian traffic. • Minimize ground disturbance and excavation in the vicinity of heritage sites and structures, preserving their original foundations and features. • Use prefabricated structures and avoid new construction. • Use building materials that are compatible with existing cultural heritage structures to maintain historical accuracy. • When necessary, conduct restoration and rehabilitation work using traditional building techniques and materials to ensure historic accuracy. • Develop signage and materials to inform visitors of the historical and cultural significance of cultural heritage sites. • Implement controlled access measures to limit visitor impacts on social facilities during construction. • Continuously monitor the condition of heritage assets during and after construction and address any signs of deterioration or damage in a timely manner. • Develop a contingency plan for unforeseen circumstances, such as natural disasters or vandalism, that may threaten heritage sites. • Ensure full compliance with heritage conservation laws and regulations at local, national, regional and international levels. • Protection of existing artifacts and movable cultural objects during works: ✓ Before the commencement of works in or adjacent to museums, exhibition halls, storage rooms, archaeological displays, or other areas containing movable cultural objects, the museum administration and the Contractor shall jointly identify all objects that may be exposed to construction-related risks. ✓ A photographic inventory and condition record shall be prepared for all potentially affected artifacts and movable cultural objects before the relevant work area is handed over to the Contractor. ✓ Objects located within or immediately adjacent to work areas shall, where feasible, be relocated to a secure area. Any	The Contractor shall be responsible for securing the work areas, controlling access by workers and subcontractors, implementing the approved protection measures, maintaining access and incident records, enforcing the workers' Code of Conduct, and immediately reporting any loss, theft, unauthorized movement, damage, or destruction of artifacts or movable cultural objects. The museum administration shall be responsible for identifying the artifacts and movable cultural objects potentially affected by the works, preparing or verifying the inventory and condition records, authorizing and supervising any relocation or handling, and confirming their condition upon completion of the works. The Engineer shall be responsible for monitoring and supervising implementation of the mitigation measures, including verification of physical protection, access control, records, worker training, and corrective actions. ARIS shall carry out overall inspection and compliance control, ensure follow-up of identified non-compliances and serious incidents, and coordinate with the relevant cultural heritage authorities where required.	Included in the bidding documents, the Contractor's BoQ and cost estimate, and supervision costs. Where specialized conservation, packing, relocation, temporary storage, or additional physical security is required, the corresponding costs shall be separately identified and provided for.

			relocation or handling shall be undertaken only by authorized museum personnel or qualified conservation specialists. ✓ Where relocation is not feasible, objects shall be protected in situ using appropriate dustproof and waterproof covers, rigid barriers, lockable enclosures, vibration protection, or other conservation-compatible measures approved by the museum administration. ✓ Access to exhibition, collection, and storage areas affected by the works shall be restricted to authorized personnel and controlled through designated entry points, key control, and an access register. ✓ Appropriate physical security measures shall be maintained, including lockable rooms or enclosures, temporary security barriers, security personnel, adequate lighting, and the use of existing CCTV systems where available. ✓ The workers' Code of Conduct shall expressly prohibit unauthorized touching, handling, movement, removal, concealment, damage, destruction, collection, purchase, sale, or other interference with artifacts and movable cultural objects. ✓ All workers and subcontractors shall receive mandatory induction on the protection of cultural heritage, restricted areas, applicable prohibitions, reporting obligations, and consequences of non-compliance before being allowed to work in heritage-sensitive areas. ✓ Any suspected theft, loss, unauthorized movement, damage, or destruction shall result in immediate suspension of works in the affected area. The area shall be secured, and the museum administration, the Engineer, and ARIS shall be notified immediately. ✓ Upon completion of the relevant works, the museum administration and the Contractor shall conduct a joint inspection against the initial inventory and condition records. Any discrepancy or damage shall be documented and addressed before acceptance of the works. • Mitigation measures for any MOCNs discovered during the construction stage of the project will be implemented in accordance with the procedures for dealing with finds of cultural value. • Phase and schedule works to maintain safe access for visitors and pilgrims wherever feasible. • Provide clearly marked safe alternative routes where existing access routes are temporarily closed.	Qualified cultural heritage or conservation specialists shall be involved where specialized handling, packing, relocation, condition assessment, or in-situ protection of movable cultural objects is required. The Ministry of Culture, Information and Youth Policy of the Kyrgyz Republic, through its competent structural unit responsible for historical and cultural heritage, is the authorized state body responsible for the protection and use of historical and cultural heritage and shall be notified of chance finds in accordance with national legislation.	

			• Where continuous access cannot be maintained, establish access on agreed days or during specified hours. • Consult traditional users and site administration on access arrangements and communicate temporary restrictions in advance. • Maintain separation between construction activities and visitor or pilgrimage movement, without blocking emergency access. • Procedures to be followed in the event of discovery of a find of cultural value (Chance Finds Procedure). • If, during excavation or construction work, a person discovers tangible cultural objects such as (among others) archaeological sites, historic sites, remains and objects, or a cemetery and/or individual graves, the following steps shall be taken: ✓ Stop all work in the area of the find until a solution to the preservation of these artifacts can be found or recommendations are received from the appropriate authorities; ✓ Notify the foreman immediately. The foreman should notify the contractor and the Environmental Manager; ✓ Record details in an incident report and photograph the find; ✓ Delineate the discovered site or area; secure the site to prevent damage or loss of removable items. If removable antiquities or sensitive remains are found, organize a night guard until local authorities arrive; • Preliminary evaluation of finds by archaeologists. The archaeologist should conduct a rapid assessment of the site or find to determine its significance. Based on this assessment, an appropriate strategy can be implemented. The significance and importance of finds should be assessed according to criteria relevant to cultural heritage, such as the aesthetic, historical, scientific or research, social and economic value of the find; • Sites of minor significance (e.g. isolated or obscure objects, isolated finds) shall be recorded immediately by the archaeologist, resulting in minimal disruption to the Contractor's work schedule. • In the event of a chance find, the Contractor shall immediately stop works, secure the area and notify the Engineer and ARIS. • ARIS shall notify the authorized state body responsible for the protection and use of historical and cultural heritage in writing within 48 hours and provide the available photographs, location details and preliminary information. • The find shall not be removed, disturbed or altered, except by authorized specialists.		

			• Further investigation and treatment of the find shall be determined in accordance with the written instructions of the authorized state body. • Works may resume only after written clearance has been issued by the authorized state body. • One of the main requirements of the procedure is record keeping. All finds shall be recorded. A photo log, copies of correspondence with the decision-making bodies, conclusions and recommendations/guidelines, and implementation reports shall be retained. • Ensure 24-hour site security and access control to prevent theft or unauthorized removal of artifacts. • Maintain records of all artifact handling, transfers, and storage activities under the supervision of the of the authorized state body.		
15	Safety of residents	Limited access way to residential and business districts due to construction/excavation works.	• Advance notification of local community representatives, relevant local authorities, and other stakeholders regarding the start of works, the types of planned construction activities, and their estimated timelines. • Maximum reduction of construction stage. • Provide crossings and/or alternative access roads. • Repair areas will be properly lit, fenced and equipped with signs informing about the progress of work.	The Contractor is responsible for this function. The technical supervision is responsible for monitoring and supervision activities. ARIS specialists, regional technical supervision is responsible for general supervision.	Contractor's costs
16	Labor issues	Use of forced labor, labor influx, violence/ sexual harassment	• Treat all employees fairly, do not discriminate and provide equal opportunities. When designing common areas, it is necessary to make them accessible to persons with disabilities; • Compliance with the Code of Conduct by all project employees, including Contractors; • Availability and functioning of the GRM including a special window for complaints related to sexual exploitation and violence/ sexual harassment.	The Contractor is responsible for this function. The technical supervision is responsible for monitoring and supervision activities. ARIS specialists, regional technical supervision is responsible for general supervision.	Contractor's costs
Operational stage					
Physical environment					
17	Atmospheric air quality	• Cleaning of the territory of objects, minor repairs, fires: dust • Fires during drought: smoke from fires	• Good housekeeping practice • Timely and controlled irrigation of the territory	Project initiator	Own budget
18	Water resources	• Sanitary facility: waste water generation • Climatic precipitation: flooding • Resource efficient irrigation and watering systems	• Timely maintenance of sanitary facilities • Use of resource-saving technologies • Adequate resource efficient irrigation and watering systems and technologies	Project initiator	Own budget

			• Conducting exploration work against cave flooding and using highly effective materials for waterproofing		
19	Soil and land contamination	• Waste generation	• Garbage must be sorted and disposed of in the prescribed manner at an official landfill; • It is strictly forbidden to burn any waste in an open way or send it to unauthorized landfills; • Availability of the appropriate type and number of bins for household waste; • Timely removal of household waste from the territory on the terms of removal and disposal; • Development of management plans for various types of waste. Procedures, instructions and rules; • Storage and disposal of electronic, including hazardous waste (old light bulbs containing mercury, batteries, equipment parts) in accordance with national legislation.	Project initiator	Own budget
20	Emergency situation	mudflows, landslides, fires, floods, erosion, earthquakes	• Systems for monitoring and early warning of natural disasters • Preventive measures such as properly organized anti-mudflow and anti-landslide measures • Timely and controlled irrigation of the territory • Fire safety and alarm systems • Timely maintenance	Project initiator	Own budget
21	Fire and Life Safety in Public Buildings	• Risk of fire in public buildings • Threat to life and health of visitors and staff • Damage or irreversible loss of cultural heritage assets • Panic and unsafe evacuation during emergency situations • Risk to visitors, staff and cultural heritage assets during seismic events.	• Fire and Life Safety Assessment shall be conducted prior to commissioning of buildings accessible to the public. • Installation and regular maintenance of fire detection and alarm systems in accordance with national legislation and the World Bank Group Life and Fire Safety requirements for buildings accessible to the public. • Provision of adequate and clearly marked emergency exits, unobstructed evacuation routes, emergency lighting and signage. • Installation of portable fire extinguishers and, where required, internal fire hydrant systems. • Development, approval and public display of evacuation plans. • Regular fire drills and mandatory emergency response training for all operational staff. • Restriction of storage of flammable materials within public access areas. • Installation of lightning protection systems where required by design. • Periodic inspection, testing and certification of fire safety systems. • Coordination with local fire authorities and emergency services.	Project initiator	Own budget

			• Documentation and maintenance of inspection logs and fire safety compliance records. • Emergency preparedness and response procedures for the operation stage shall explicitly address seismic events, including clearly marked evacuation routes, assembly points, communication arrangements, responsible persons, assistance to persons with disabilities and periodic emergency drills.		
Biological environment					
22	Fauna and flora	Tree preservation	• Planting new trees and tree care • To preserve natural flora, use local species of plants and trees • Control and proper organization of planting, taking into account the risks of mudflows and landslides	Project initiator	From project funds
Social environment					
23	OHS workers and community Labor issues	• Safety and security issues • Labor protection	• Availability of a fire alarm system and fire localization, as well as emergency backup systems for power supply and water supply; • Availability of an emergency response plan, including an evacuation plan; • Provide detailed information to staff on the activities envisaged in the project; • Conduct safety briefings conducted by specialists in various fields; • Provide adequate sanitary and hygienic conditions (toilets and hand washing facilities) in the workplace with an adequate supply of running water, soap, antiseptics and hand-drying facilities; • Safe working conditions that meet the requirements of labor protection and safety measures established by the legislation of the KR. • Proper working conditions and compliance with labor legislation requirements in terms of labor relations	Project initiator	Own budget
24	Access and attractiveness to cultural heritage sites	Visitor rights	• Access for all categories of visitors to cultural heritage sites • Tourism Management Plan	• Project initiator • Travel agencies	Own budget
25	Intangible cultural heritage (ICH)	Loss of heritage, traditional customs, authenticity of cultural practices, destruction of sacred and religious places	• Education and enlightenment ✓ Organization of educational programs so that older generations can pass on knowledge to the youth. ✓ Integration of ICH elements into cultural and educational programs, especially in the regions where the traditions originated. • Popularization and cultural interaction ✓ Holding cultural festivals, fairs and holidays to highlight the uniqueness and importance of ICH. ✓ Promoting the popularization of ICH through modern media: creating films, games, applications, online platforms.	• Project initiator • Support for local communities, city municipal authorities, and the scientific community • Travel agencies	Own budget

			✓ A program to support cultural projects aimed at preserving and developing ICH. • Documentation and archiving ✓ Creation of online archives, records, publications and educational materials that ensure the accessibility and preservation of information on ICH. • Tourism and respectful acquaintance with culture ✓ Programs to attract tourists to responsible and respectful study of culture, with an emphasis on the authenticity of traditions. ✓ Develop visitor-management programs to ensure responsible and respectful interaction with heritage sites and practices. ✓ Provide interpretive signage explaining the significance of cultural elements and prohibiting inappropriate behavior. ✓ Engage local artisans, guides, cultural practitioners and community representatives, where appropriate, in heritage interpretation, awareness-raising and preservation activities. ✓ Provide transparent opportunities for local vendors and service providers to benefit from increased tourism through designated vending areas and relevant tourism-related services, subject to applicable procurement and site management requirements. ✓ Consult local communities on proposed commercial uses of cultural heritage and periodically monitor community participation and the distribution of tourism-related benefits. • Adaptation to environmental changes ✓ Programs to adapt traditional practices to changing environmental and social conditions. ✓ Assessing the impact of climate change on traditions and assisting in their transformation. ✓ Promote awareness of how ICH contributes to climate adaptation and cultural sustainability. ✓ Regular monitoring of the authenticity of restored sites and cultural practices.		

Requirement for Contractor's Environmental and Social Management Plan (C-ESMP)

Each construction Contractor engaged under the Project will be required to prepare and implement a Contractor's Environmental and Social Management Plan (C-ESMP) prior to the commencement of any site activities.

The C-ESMP constitutes the site-specific implementation instrument for the relevant site or construction package. It shall be fully consistent with this ESIA, the Project-level ESMP presented in Table 6, the World Bank Environmental and Social Standards, and relevant Good International Industry Practice (GIIP).

The C-ESMP will include, at a minimum:

- site-specific mitigation and monitoring measures aligned with the Project ESMP;
- procedures for occupational health and safety (OHS) and emergency preparedness;
- Chance Finds Procedure and measures for cultural heritage protection;
- waste management, traffic management, and community health and safety plans;
- visitor and pilgrim access management arrangements, including alternative routes, access schedules, temporary signage and barriers, responsible persons, and communication procedures;
- labor management, code of conduct, and SEA/SH prevention measures;
- reporting and internal supervision arrangements.

The C-ESMP shall be reviewed and approved by the Engineer and the ARIS Environmental and Social Specialists before construction begins.

Compliance with the approved C-ESMP will be subject to continuous monitoring and regular audits throughout the construction period.

8.7. Monitoring, Evaluation, and Adaptive Management

Specialized and third-party monitoring will be applied on a risk-based basis. Routine compliance monitoring will be carried out by the Contractor and the Engineer, with overall oversight and reporting by ARIS. For works affecting cultural heritage, qualified cultural heritage specialists, archaeologists or conservation specialists, together with the relevant site administration, will participate in monitoring as required. The authorized state body will exercise statutory control and provide instructions in relation to chance finds and other matters within its mandate. Where instrumental environmental monitoring is required, measurements will be undertaken by appropriately accredited laboratories. Independent experts may be engaged where significant risks, findings or non-compliances require additional technical review.

A robust monitoring and evaluation framework is established to ensure that all mitigation measures under the ESMP are effectively implemented and remain responsive to evolving site conditions.

The monitoring system combines regular field inspections, periodic audits, and continuous data collection on key environmental and social indicators.

It ensures that mitigation measures are functioning as intended and that any unforeseen issues are identified and corrected promptly through adaptive management.

Key elements of the monitoring framework include:

- Regular site inspections and audits: Conducted by the ARIS Environmental and Social Specialists and the Engineer to verify contractor compliance with ESMP requirements.
- Continuous assessment of environmental and social indicators: Monitoring air quality, waste management, noise levels, site safety, community access, and cultural heritage protection.
- Adaptive management: Immediate review and modification of mitigation measures in response to monitoring results or new risks identified during implementation.

- Reporting and documentation: Compilation of monitoring data and site observations into quarterly Environmental and Social Monitoring Reports submitted by the ARIS to the World Bank and relevant authorities.

This monitoring framework ensures transparent tracking of performance, timely identification of corrective actions, and continuous improvement of environmental and social management practices throughout the Project lifecycle.

Table 7. Environmental and social monitoring plan

Which parameter is to be monitored	Where the monitoring will be carried out?	How will monitoring be carried out? /Type of monitoring equipment	When? (frequency of measurement)	Cost of monitoring (cost of equipment or amount of contractor's costs required for monitoring?)	Institutional responsibility for monitoring
Construction stage					
Noise	On the construction site	Visually	All the time	Criteria/specifications for inclusion in tender and contract documents. Not considered as a separate item of expenditure	• Inspection of the construction site shall be carried out by ARIS to ensure compliance with the ESMP. • State inspectors of the Department of State Architectural and Construction Supervision (DSACS) will supervise the implementation of design solutions during construction and installation works or during the reconstruction of facilities, the quality of construction materials and structures. They will participate in the commissioning of completed construction projects. • The State Environmental and Technical Supervision Service (SETSS), which carries out state environmental supervision, has the right to supervise in accordance with the established procedure after submitting relevant identification documents in accordance with environmental regulations, standards, and environmental protection measures during project implementation
Air	On the construction site and facilities under repair	Visually	Daily		
Transportation	On the construction site	Visually	Daily		
Waste disposal and storage	On the construction site and facilities under repair	Visually	Daily		
Soil contamination	On the construction site	Visually	Daily		
Construction site dismantling	On the construction site	Visually	Daily, according to the Plan		
Trees, shrubs	Around the construction site	Visually	Daily		
Worker safety		Visually	Daily		
Access to houses and facilities	Along access roads/ near work areas	Observation, site inspection, feedback from local residents	Continuous		
Community awareness and information	In local communities near project sites	Public information boards, attendance sheets of awareness sessions	Quarterly or before new works start		
Availability and functionality of GRM	On the construction sites	Review of GRM log, number and type of complaints resolved	Monthly		
Working conditions and OHS compliance	Construction sites	Visual inspection, PPE checks, safety briefings records	Weekly		
Worker accommodation and hygiene conditions (if applicable)	Worker camps/ temporary facilities	Visual inspection, sanitation checklist	Monthly		
SEA/SH awareness and prevention measures	Construction sites and nearby communities	Verification of Code of Conduct signing, awareness sessions, GRM log for SEA/SH cases	Quarterly		

Which parameter is to be monitored	Where the monitoring will be carried out?	How will monitoring be carried out? /Type of monitoring equipment	When? (frequency of measurement)	Cost of monitoring (cost of equipment or amount of contractor's costs required for monitoring?)	Institutional responsibility for monitoring
Tangible Cultural Heritage (TCHS) Condition of heritage structures, integrity of artifacts, and worker safety during restoration	At and around construction sites of Sulaiman-Too Complex and Uzgen Historical and Architectural Complex	• Visual inspection and photographic records before, during, and after works. • Monitoring by qualified cultural heritage or conservation specialists, with involvement of the authorized state body where required. • Verification of compliance with Chance Finds Procedure and OHS Plan (work at heights/ below ground).	Continuous during construction; monthly summary reports		Contractor; Engineer; ARIS; relevant site administration; qualified cultural heritage specialist; and the authorized state body, where required.
Operation stage					
Collection and temporary storage of waste before it is taken to a landfill site	In the project area	Visually	All the time		• Authorized state body carrying out state environmental supervision; • Sanitary inspection within the framework of control over compliance with hygienic and sanitary norms
Trees, shrubs	In the project area	Visually	All the time		
OHS and environmental issues	In the project area	Visually	All the time		• Authorized state body carrying out state environmental, technical and fire supervision
Access and visitor safety	Entrances, pedestrian paths	Visual, feedback	Continuous		• Museum administration/ Local authorities
Functionality of GRM and feedback system	Site office	Review of records	Quarterly		• ARIS
Hygiene and sanitary maintenance of public facilities (toilets, benches, cafes)	Inside the project area	Sanitary inspection	Quarterly		Sanitary inspection/ Museum management
Intangible Cultural Heritage (ICH) Authenticity of cultural practices, condition of restored sites, and visitor-management performance	Within restored heritage sites and nearby communities	• Regular inspections of maintenance condition and authenticity. • Consultations with local communities and heritage custodians. • Monitoring of visitor behavior, signage, and site-management records. • Review of educational and cultural programs supporting ICH. • Annual comprehensive review by a qualified cultural heritage or conservation specialist, with additional independent review where significant deterioration, complaints or non-compliances are identified.	Quarterly during operation; annual comprehensive review		Facility Operator/relevant site administration; Local Municipality; qualified cultural heritage or conservation specialist; authorized state body; community representatives; and independent expert, where required.

IX. INSTITUTIONAL DEVELOPMENT AND CAPACITY BUILDING FOR IMPLEMENTATION OF THE ENVIRONMENTAL AND SOCIAL ASSESSMENT (ESA)

Effective implementation of the ESIA requires a clearly defined institutional arrangement that specifies the roles, responsibilities, and accountability of all stakeholders involved in the Project. This includes the supervisory role of the World Bank, which oversees compliance with its Environmental and Social Standards (ESSs), and the operational responsibilities of the Project Implementation Unit (ARIS) under ARIS, as well as the Environmental Specialist, Social Development Specialist, Contractors, Engineer, and relevant government authorities.

Clearly delineating these roles ensures effective oversight, coordination, and communication throughout the project lifecycle — particularly during the design, construction, and operation stages. It also provides a transparent mechanism for managing risks, monitoring environmental and social performance, and ensuring timely and efficient delivery of project objectives.

Effective management of the environmental and social aspects addressed by the ESIA within the project requires the establishment of a robust institutional structure and capacity building plan. This chapter describes the organizational roles and capacity building measures needed to implement environmental and social measures, coordinate between actors, and establish a system for monitoring compliance with all environmental and social requirements.

9.1. Institutional Structure and Roles

- Ministry of Economy (MOE): The MOE is the main coordinating body responsible for the strategic management of the project and interaction with the Presidential Administration, the Cabinet of Ministers of the Kyrgyz Republic, the Ministry of Finance and relevant agencies. Through its Regional Development Department, the MOE coordinates project implementation, approves work plans and budgets, and provides political and strategic support. The Deputy Minister of Economy is responsible for the overall management of the project, ensuring the effective implementation of activities.
- The World Bank team is responsible for providing advice, reviewing and approving relevant documentation, and providing ongoing support to project implementation.
- ARIS is the designated project agency and is responsible for the implementation of project activities, including fiduciary functions (procurement, financial management and reporting). A key role for ARIS is to ensure environmental and social standards are met and they have appointed Environmental and Social Officers to ensure this. These officers oversee the implementation of ESA activities, conduct regular on-site monitoring, prepare reports and train local authorities and contractors. ARIS also has additional supervision and support staff based in the region to ensure more effective implementation control at the regional level.
- ARIS Environmental and Social Specialist: : is responsible for coordinating measures to ensure the safety of the community and visitors, monitoring compliance with requirements regarding the fencing of construction sites, alarm systems, access control and incident response.
- ARIS Social Affairs Officer: responsible for coordinating the implementation of social requirements, including labour matters, public engagement, SEA/SH issues and the operation of the complaints mechanism.
- ARIS Regional Environmental Specialist: monitors compliance with environmental requirements on site on a regular basis, takes part in inspections, reviews contractors' site plans and prepares reports on environmental matters.
- ARIS Regional Social Specialist: monitors compliance with social requirements, including labour issues, public engagement, SEA/SH matters and the operation of the complaints mechanism.
- Osh City Hall: Provides administrative support for work within the city, including:

- coordinating the closure or restriction of vehicle and pedestrian traffic;
- coordinating the connection, relocation, or protection of utility lines;
- coordinating with municipal services on landscaping and waste management;
- facilitating public awareness of ongoing work.

- City(ies) Administration/City Hall (relevant municipal divisions): ensures operational coordination with public utilities, transport and public works services, participates in the approval of traffic management schemes and monitoring compliance with municipal requirements.
- Contractors and Beneficiaries: Contractors engaged to carry out project work are required to comply with all national environmental and social requirements and the measures outlined in the ESMP. Contractors are required to designate persons responsible for environmental, social, health and safety issues.
- Designer supervision: monitors the compliance of work performed with approved design documentation, including decisions related to the preservation of cultural heritage. Reviews deviations from design solutions and participates in the approval of technical changes.
- Engineer: The Engineer (Engineer) will play a key role in day-to-day environmental and social supervision of works. The Consultant will ensure that the contractors' activities are in full compliance with the ESMP, national legislation, and the World Bank's Environmental and Social Standards. The Consultant will:
  - review and approve site-specific management plans before construction;
  - conduct daily monitoring at the construction site and regular (at least weekly) formal inspections,
  - prepare reports on compliance with occupational health and safety, waste management community safety, and cultural heritage protection requirements;
  - document non-conformities and issue contractor notices with timelines for rectification;
  - immediately report any non-compliance or incidents to ARIS and relevant authorities;
  - participate in the review of construction-related complaints, verify facts on-site, and confirm the implementation of corrective actions.
- Third-party and specialized monitoring: Given the high sensitivity of the project area as a UNESCO World Heritage site, ARIS may engage, in coordination with the Ministry of Culture, specialized institutions or independent experts (e.g., cultural heritage specialists, environmental monitoring laboratories) for periodic third-party monitoring. This mechanism will ensure objective verification of compliance with conservation, environmental, and social safeguards requirements, and will provide additional assurance to the World Bank and UNESCO.
- Local authorities, the Ministry of Culture and the management of the STC and UAHC as final beneficiaries appoint responsible persons to oversee the implementation of ESIA standards and maintain records, which ensures their involvement and participation in the project.
- State supervisory authorities ensure that the subproject complies with the provisions of the requirements for compliance with environmental legislation and regulations.

Grievance Redress Mechanism (GRM)

- ARIS is responsible for the functioning of the GRM at the project level, including registration, classification, monitoring of review deadlines, and preparation of responses.
- The Contractor provides the initial response to complaints related to construction activities, with mandatory registration and transmission of information to the Engineer and ARIS.
- The Engineer records complaints, verifies facts, and monitors the implementation of corrective actions.
- The City Hall facilitates the review of complaints related to urban regulation issues (traffic, landscaping, access).

- State Supervisory Authorities
- Exercise state oversight of compliance with environmental, sanitary, and labor laws within their jurisdiction.

Key Considerations for Contractor and Consultant Selection in Culturally and Historically Significant Regions

- Given the significance of the project, the selection of contractors and Engineers requires particular attention. It is important to incorporate requirements relating to the World Bank's EHS, particularly in regions with a unique cultural and historical heritage. To ensure compliance with high standards and minimise the impact on the environment and the local community, it is necessary to:
- Verify Experience — consider contractors and consultants with proven experience in projects that involve similar challenges and EHS compliance. Companies that have established themselves in this field will be better equipped to handle arising risks and adhere to mandatory standards.
- Detailed Selection Criteria — integrate EHS competencies and sustainable practices into the tender evaluation system. Assessing candidates based on their readiness to address environmental and cultural aspects allows for a more informed and fair selection process.
- Engineering Supervision — ensure strict control by engineering consultants, who will oversee compliance with requirements and quality standards at all stages of the project. This minimizes potential deviations from planned solutions and ensures a reliable and safe outcome.

This approach creates the conditions for successful project implementation with minimal impact on the environment and maximum preservation of the region's cultural heritage.

Main Qualification Requirements for Selecting Contractors and Engineer in Culturally and Environmentally Sensitive Projects

To choose contractors and Engineers for projects in culturally and historically significant regions, it's essential to establish clear qualifications regarding experience and knowledge of the World Bank's Environmental, Health, and Safety (EHS) standards. Below are the key qualification criteria to incorporate into the selection process:

Cultural Heritage Experience

- Demonstrated experience in construction, rehabilitation or restoration projects located in culturally sensitive areas, including protected heritage sites.
- Experience in implementing or supervising Cultural Heritage Management Plans and site-specific heritage protection measures.
- Practical experience in applying Chance Finds Procedures and coordinating with cultural heritage authorities and qualified specialists.
- For the Engineer, experience in supervising works near heritage structures, including condition surveys, vibration controls and compliance with approved heritage protection requirements.
- Availability of qualified cultural heritage, conservation or archaeological specialists, where required by the nature of the works.

Education and Professional Qualifications

- A degree in construction, engineering, environmental studies, or other fields relevant to projects in sensitive regions.
- Up-to-date certificates and licenses confirming qualifications in EHS and workplace safety standards, such as ISO 14001 (environmental management) and ISO 45001 (occupational health and safety management).

Experience in Similar Projects

- At least 5 years of experience working on projects that require strict adherence to EHS standards, especially in culturally and environmentally sensitive regions.
- Proven track record of implementing projects in line with international EHS standards, including those funded by the World Bank or other international financial institutions.
- Skills and experience in creating and implementing EHS management plans, monitoring, and reporting in accordance with the World Bank's standards and guidelines.

Knowledge of World Bank EHS Standards and Policies

- A comprehensive understanding of the EHS Guidelines, which contain performance levels and measures generally accepted by the World Bank Group and considered achievable in new facilities at a reasonable cost with current technologies.
- Familiarity with the World Bank Group's General EHS Guidelines (2007): Link to the General EHS Guidelines
- Knowledge of the World Bank's Environmental and Social Framework (ESF): Link to the Environmental and Social Framework

Skills in Developing and Implementing EHS Plans

- Ability to create comprehensive EHS management plans that address specific project risks, including pollution prevention, worker health and safety, and reduction of environmental and cultural impacts.
- Skills in managing contractors and subcontractors concerning EHS compliance, ensuring staff training programs, and monitoring adherence to safety and environmental standards.
- Capacity to supervise construction and operational work with strict EHS compliance, including regular monitoring, reporting, regulatory adherence, and training for all project participants.

Communication and Reporting Skills

- Ability to communicate with local and international stakeholders to ensure clear understanding and compliance with all EHS standards.
- Experience preparing detailed EHS compliance reports for submission to the World Bank or other regulatory bodies, including highlights of achievements, identified non-compliances, and corrective actions.
- Ability to organize and conduct training and informational sessions for all project participants on EHS standards and safe working conditions.

Incorporating these requirements into the qualification criteria will support the selection of highly capable specialists who can execute the project in alignment with World Bank standards and minimize potential adverse impacts on the environment, health, and safety.

9.2. ESIA management process and practical implementation

Effective ESIA management includes several key stages: screening, development of ESIA and ESMP, consultation, implementation control and ongoing monitoring. These steps not only help to minimize negative environmental and social impacts, but also increase transparency by facilitating stakeholder engagement.

1. Screening and initial assessment:
   Each project component goes through a screening process to identify the level of risk, which helps to select the right management measures, such as ESIA and ESMP. Screening helps to highlight critical aspects that require special attention.
2. Development of ESIA and ESMP:
   For projects with high environmental or social risks, an ESIA is developed, which assesses the impacts and proposes mitigation measures. The ESMP serves as a working document that ensures the integration of risk management measures into project activities, defining specific steps and indicators for monitoring.

ESMP hierarchy and implementation arrangements

The ESMP contained in this ESIA is a Project-level management instrument applicable to all Project components and construction contracts. It defines the common mitigation, monitoring, institutional, reporting, and budget requirements that shall be incorporated into bidding documents and contracts.

Each construction Contractor shall subsequently prepare a site-specific C-ESMP before mobilization and commencement of any physical works. The C-ESMP shall be based on the final detailed design, approved construction methodology, work schedule, environmental and social screening results, and the requirements of the Project-level ESMP.

Where one construction contract covers more than one Project site, a single consolidated C-ESMP may be prepared, provided that it contains separate site-specific sections, mitigation and monitoring measures, implementation arrangements, and responsible persons for each site. Approval of the provisions relating to one site shall not authorize commencement of works at another site whose site-specific provisions have not yet been reviewed and approved.

No mobilization or physical works shall commence at a site until the relevant site-specific C-ESMP provisions have been reviewed and approved by the Engineer and the ARIS Environmental and Social Specialists. Detailed requirements regarding the minimum content, review, approval, and monitoring of the C-ESMP are provided in Section 8.6 under «Requirement for Contractor's Environmental and Social Management Plan (C-ESMP)».

3. Consultation:
   Consultation with local communities and other stakeholders is an important element of ESA management. These meetings help to identify the expectations and concerns of local residents and take their interests into account in the project plans.
4. Monitoring and Control:
   To ensure compliance with ESA standards, the project agency and its specialists conduct regular checks and control over the implementation of the ESMP. Control checklists are created to help systematically monitor the implementation of risk management measures.
5. Adaptation and Adjustment of the ESMP:
   Project documentation and ESA management plans must be adapted to changing project conditions. At this stage, the monitoring results are analyzed and, if necessary, adjustments are made to take into account new factors or risks. Reporting on the progress of the activities is provided.

9.3. Capacity Building and Training Plan

To successfully implement the ESA, the project includes a comprehensive capacity building plan to develop the skills of participants at all levels.

- Training of staff and contractors:

It is planned to provide training and information on topics such as the World Bank ESF policy (ESSs standards) and national guarantees, as well as practical examples in this area. Consider the necessary tools that are applicable to the project, such as screening checklists, ESIA, ESMP, checklists and other plans, as well as monitoring, control and reporting of the ESMP.

Plan The training consists of several modules, each of which is aimed at deepening knowledge and skills in working with ESA tools. Specialists undergo training in screening methods, approaches to conducting and preparing ESIAs, developing ESMPs and checklists, identifying the most potential risks and measures to mitigate them, as well as on issues of interaction with local communities.

- Improving competencies in the use of ESMPs and checklists:

Special attention is paid to training in the development and application of ESMP checklists, which allows structuring control over the implementation of risk management measures. These skills are especially important for specialists who are responsible for monitoring and reporting.

- Practical training in monitoring and adjusting ESMPs:

On-site, specialists are trained in monitoring methods and evaluating the effectiveness of ESMP measures, which allows them to promptly respond to emerging changes. Practical training includes the use of control checklists for monitoring and performing corrective actions.

Successful implementation of ESA measures requires ongoing funding to cover the costs of training, consulting and support for all participants. Budgeting for these activities is part of the overall project procurement plan, ensuring that resources are available at all stages of implementation. This approach, which includes long-term investments in human resources and infrastructure, promotes sustainable development and minimizes environmental and social risks.

Thus, the creation of a strong institutional framework for ESA management and a staff development program allows the project to successfully manage environmental and social risks, ensuring compliance with international and national standards. These measures not only help protect the environmental and social environment, but also contribute to more effective project implementation, strengthen the trust of local communities and stakeholders, creating a basis for sustainable development.

In addition to the formal training modules listed below, the Project will organize awareness and outreach sessions for local communities in Osh and Uzgen on cultural heritage conservation, environmental protection, and safe behavior near construction zones.

Technical assistance and expert support will also be provided by qualified cultural heritage specialists, including experts from the Ministry of Culture and heritage conservation institutions, to ensure the accuracy and sensitivity of all restoration works.

Table 8. Training plan

№	The name of the training	Time	Target group	Arranger	Estimated cost
1.	Review of WB ESSs and their implementation during the project cycle. National environmental requirements for project preparation and implementation	During the first year of the Project implementation Duration – 0.5 days	ARIS management and relevant specialists (environmental and social specialists, procurement and financial management specialists, regional project coordinators).	An external consultant for the EPS (a consulting company or individual specialist) is engaged. In agreement with ARIS.	Provided for in the project budget (within the project management/institutional development component).
2.	Implementation ESMP, LMP, SEP, GRM, management plans	Duration – 2 days	ARIS staff, including regional project office staff	ARIS E&S specialists	As part of the salary of E&S specialists/ Consulting company
3.	Environmental and social screening of subprojects/ activities; preparation of site-specific ESMP, and monitoring and reporting on their implementation.	Duration – 0.5 days and repeated as needed	ARIS staff, including regional project office staff. Contractors, supervision engineers.	ARIS E&S specialists	As part of the salary of E&S specialists/ Consulting company
4.	SEA/SH training and awareness raising/implementation of GBV action plan	Seminars for half a day at the beginning and in the middle of the project	ARIS staff, Contractor, supervision. Local authorities, community members	ARIS E&S specialists	As part of the salary of E&S specialists/ Consulting company
5	Reporting on performance and environmental and social, including OHS compliance	During the first six months of the project Duration - 0.5 days.	ARIS staff, including regional project office staff, supervision engineers.	ARIS E&S specialists	As part of the salary of E&S specialists/ Consulting company
6	Cultural Heritage Management, Protection of Movable Cultural Heritage and Chance Finds Procedure. The training shall cover site-	Before commencement of works and before access to heritage-sensitive areas;	Contractor and subcontractor workers, site managers, security personnel, the Engineer's site	ARIS environmental and social specialists, museum	Included in the ESMP implementation budget and the Contractor's training costs.

	specific cultural heritage protection measures; responsibilities under the Cultural Heritage Management Plan; protection of heritage structures, artifacts and movable cultural objects; restricted areas and access rules; handling, relocation and in-situ protection; physical security requirements; Code of Conduct prohibitions; reporting of theft, loss or damage; stop-work requirements; and the Chance Finds Procedure.	refresher training during construction and following any incident or significant non-compliance.	personnel, and other personnel with access to heritage-sensitive areas.	administration, and a qualified cultural heritage specialist.	

9.4. Budget of the ESMP implementation

Adequate financial resources are allocated to ensure the effective implementation of the Environmental and Social Management Plan (ESMP).

The ESMP budget covers all essential components required for environmental protection, social engagement, capacity building, and monitoring throughout the Project lifecycle.

It also includes provisions for unforeseen or emergency environmental and social actions, such as additional supervision or grievance redress activities.

Funding is structured under the following main categories:

- Environmental assessments and mitigation measures – includes site-specific ESMP preparation, implementation of environmental protection measures, and compliance with national requirements.
- Social engagement activities – includes stakeholder consultations, community awareness sessions, and operation of the Grievance Redress Mechanism (GRM).
- Training and capacity building – includes training sessions for ARIS staff, contractors, and local authorities (as specified in Table 8).
- Monitoring and evaluation – include routine internal monitoring, third-party audits (if required), and periodic environmental and social performance reporting.

The estimated budget for ESMP implementation is summarized in Table 9 below.

Table 9. ESMP Budget

№	Budget Item	Responsibility	Estimated Cost (USD)	Notes
1	Implementation of environmental measures within the framework of construction contracts (dust suppression, noise, waste, safety)	Contractor	Included in Detail Design/ BoQ	Part of construction contracts (dust control, waste management, noise reduction, cultural heritage protection).
2	Restoration of disturbed landscaped areas and replacement planting, if required	Contractor/City Hall	10,000	Compensatory planting, care, restoration of landscaping
3	Laboratory environmental monitoring (air, noise, and, if necessary, water/soil)	ARIS	6,500	Services of accredited laboratories, market value of samples and analyses
4	Social engagement and GRM implementation	ARIS	1,000	Community meetings, public information materials, GRM communication.
5	Training and capacity building (as per Table 8)	ARIS	2,000	Environmental, social, OHS, SEA/SH, and cultural heritage awareness.
6	Monitoring and evaluation (internal and external)	Contractor/ ARIS	1,000	Field inspections, data collection, compliance reporting.
7	External or emergency monitoring (if required by complaints or incidents)	ARIS	2,000	Engagement of independent experts or laboratories.
8	Unforeseen environmental and social measures and additional monitoring (contingency ~5%)	ARIS	1,125	In case of complaints, incidents or requests from supervisory authorities
	Total Estimated Cost		23,625	Should be adjusted in accordance with the final design and procurement documentation. Should be considered in the ESMP.

Note: Preliminary consultant estimate based on the available Project information, subject to confirmation during detailed design and procurement. Measures included in the construction contracts and BoQ are excluded from this total.

X. CONSULTATIONS WITH STAKEHOLDERS

10.1. Objectives and Purpose of the Stakeholder Engagement Plan (SEP):

The overall objective of the consultations was to disseminate information on the objectives and activities of the RED-1 Project in the Sulaiman-Too Complex and to inform stakeholders about the areas to be developed.

The main objectives of the RED are as follows:

- Identify and engage key stakeholders who have benefited/affected by the project and/or have the potential to influence the project and its activities.
- Mobilize the most effective methods and structures for disseminating information about the project and ensure regular, accessible, transparent and appropriate consultation.
- Develop a stakeholder engagement process that gives stakeholders the opportunity to influence the planning and design of the project;
- Maintain communication with all stakeholders to effectively implement prescribed policies and processes during the construction phase;

10.2. Stakeholder Group

In the course of preparing the Project documentation, a series of consultations and engagement meetings were held with relevant stakeholders, including national and local government authorities, representatives of local communities, project-affected persons, civil society organizations, and other interested parties. These engagement activities were aimed at informing stakeholders about the scope and objectives of the Project, gathering feedback and concerns from local communities and beneficiaries, and ensuring that the views and interests of affected and interested parties were duly taken into account in the design and planning of Project activities. The table below summarizes all consultations and stakeholder engagement meetings held to date in the framework of the Project's preparation, indicating the date, location, format, participants, and key topics discussed at each meeting.

Table 10. Meetings and consultations held

No.	Date	Location	Aim of Meeting	Participants
1	17.05.2023	ARIS	Contract Signing & ARIS viewpoint on selection of target object, and key issues in STC & UHAC	From ARIS: Mars Naspekov Aibek Kadyrov From Project Team: Arif Osmani Arisha Osmani Ulan Ishenaliev Ruslan

2	17.05.2023	Promotion and Development Centre (PDC),	Discussion of ways of interaction between the two projects	From PDC: Kubat Kanimetov Keneshbek From ARIS: Aibek Kadyrov From Project Team: Arif Osmani Arisha Osmani Ulan Ishenaliev Ruslan
3	17.05.2023	STC and UHAC Museum Directors	Understanding of key issues, and needs for improved image and accessibility in their respective complex	From Project Team: Arif Osmani Arisha Osmani Ruslan From Museums: Sultan – UHAC Complex Director Khayrulloh – STC Complex Director From ARIS: Malik Namatbekov Zuura Mamadalieva Islambek Israilov
4	20.05.2023	Meeting #2 with Promotion and Development Centre (PDC), Tourism Management Consultants	Clarification of the terms of reference for two projects	From PDC: Keneshbek From Project Team: Arif Osmani Arisha Osmani Marvi Mazhar (Remote)
5	12.06.2023	Ministry of Culture of KR	Introduction between relevant people and the development of communication guidelines	From Project Team: Bolot Abakirovich Ruslan Abdyldaev From Ministry of Culture: Maksutov Altynbek

6	12.06.2023	STC and UHAC Museum Directors	Collection of data and observations of the sites	From Project Team: Engineer Nurbolot Rakhimov From Museums: Sultan – UHAC Complex Director Khayrulloh – STC Complex Director
7	21.06.2023	Ministry of Culture of KR	Introduction between relevant individuals and the finalisation of communication guidelines	From Project Team: Ruslan Abdyldaev From Ministry of Culture: Bakeev Renat Askerbekovich Ybykeeva Nurzat
8	12.07.2023	ARIS Regional Office, Osh City Hall Building	Collection of data and observations of the sites	Ms. Galina Barashkina Ruslan Abdyldaev Nasiba Akmatova Dr. Jamil
9	13.07.2023	Ethnographic and Archaeological Museum	Collection of data and observations of the sites	Ms. Gulbara Kadyrbekovna Abdykalykova Ruslan Abdyldaev Nasiba Akmatova Dr. Jamil
10	14.07.2023	Fine Arts Museum	Collection of data and observations of the sites	Ms. Mirza Gül Ruslan Abdyldaev Nasiba Akmatova Dr. Jamil
11	04.08.2023	STC and UHAC	Collection of data and observations of the sites	KGIP: Musaev B.A. Toktoraliev T.A Rakhmanalieva S. Tukhvatullin A.A. Miniakhmetova T.B. Sakkaraev M. Rakhimov B.

12	07.08.2023 - 08.08.2023	STC	Collection of data and observations of the sites. Individual meetings with the STC staff.	Dzhoodar Dzhumagulov Gulbara Abdykalykova Orozgul Kozhanova Hairullo Ibaidulaev Mansura Jumanazarova Zhanybek uulu Kutman Ergesh Mametkadyrov
13	09.08.2023	Osh Mayor office	Collection of data and observations of the sites. Individual meetings with the Osh Mayor office staff.	Dzhoodar Dzhumagulov Azat Kubatbek uulu Talant Kasymov Mirlan Israilov
14	09.08.2023	Osh city	Collection of data and observations of the sites. Individual meetings with representatives of the tourism sector.	Dzhoodar Dzhumagulov Aikol Toktoev Parpieva Tazagul
15	10.08.2023	Uzgen City	Collection of data and observations of the sites. Individual meetings with representatives Uzgen Mayor office and UHAC.	Dzhoodar Dzhumagulov Sultan Abdrakhmanov Mirzakhid Mamatkasimov Almaz Anarbekov
16	08.09.2023	Osh city	Stakeholder Workshop: Design Validation	Marvi Mazhar, Ruslan Abdyldaev, Sadyrbaeva Tamara Orunbaeva Nurperi Mamarayimov Kubanychbek Umaraliev Abdurasultan Tolonov Y. Ibraimova O. Torogeldieva Kilia Ismailov Abdiraim Torogeldiev Altynbek
17	10.09.2023	Osh	Stakeholder Workshop: Design Validation	Marvi Mazhar Ruslan Abdyldaev Muzafa Joraev Sultan Abdyrakmanov Torsumbaev Avaz Anarbaev Almazbek

18	01.07.2026	Osh	Public consultations on environmental and social issues as part of the Regional Economic Development Project (REDP)	The lists of participants set out in Appendix 1
19	01.07.2026	Uzgen	Public consultations on environmental and social issues as part of the Regional Economic Development Project (REDP)	The lists of participants set out in Appendix 1

The feedback and recommendations gathered through this extensive consultation process were carefully reviewed, analyzed, and, where feasible, incorporated into the design and implementation arrangements of the Project. Concerns raised by local communities and other stakeholders regarding potential impacts on access to cultural heritage sites, environmental conditions, and livelihoods were used to refine mitigation measures, adjust construction scheduling, and strengthen the provisions of the Grievance Mechanism, ensuring that the Project's environmental and social safeguards remain responsive to the real needs and priorities expressed by stakeholders.

Beyond shaping specific technical and safeguard measures, the consultations fostered a spirit of transparency and mutual trust between the Project implementing agency and local stakeholders. ARIS will continue to inform Project implementation through ongoing consultations, disclosure of information, and ready access to grievance redress channels. This iterative and inclusive approach reaffirms the Project's commitment to meaningful stakeholder participation throughout the project cycle, ensuring that the voices of communities remain central to responsible and sustainable project delivery.

Planned consultations

Building on the consultations already conducted during Project preparation, further stakeholder engagement is planned throughout the remaining stages of Project design and implementation, ensuring that stakeholders and local community representatives continue to have meaningful opportunities to receive information and provide feedback as the Project progresses. As the final engineering and design solutions for each Project site are developed, ARIS will organize dedicated disclosure meetings with local authorities, community representatives, museum and cultural heritage site administrations, and other interested parties to present the finalized technical and architectural solutions, construction methodologies, and expected timelines. These sessions will provide stakeholders with an opportunity to review the final design in detail, ask questions, and raise any remaining concerns before construction begins, and will be documented and taken into account in finalizing implementation arrangements where appropriate.

Prior to the commencement of civil works at each site, ARIS and the responsible contractors will hold pre-construction consultations with directly affected communities, local authorities, site administrations, and other stakeholders located in the immediate vicinity of the works. These meetings will cover the confirmed scope and sequencing of construction activities, expected duration of works at each location, measures to minimize disruption to pedestrian access, tourism flows, and local livelihoods, and site-specific arrangements such as temporary fencing, detours, and working hours. As part of this

stage, ARIS will also carry out pre-construction screening of informal traders and other small-scale economic activities operating near Project sites, and will clearly explain the Grievance Mechanism to all stakeholders, including the available communication channels, procedures for submitting complaints (including SEA/SH-related concerns), and expected response timeframes, so that affected persons are fully aware of how to raise concerns before works begin.

During the construction phase, ARIS and the contractors will maintain regular and proactive communication with local communities and other stakeholders through periodic consultations, information boards, and local focal points stationed at or near the construction sites. These ongoing engagements will keep stakeholders informed of the progress of works, any changes to the construction schedule or traffic and pedestrian arrangements, the identity and contact details of the responsible contractor(s) and site supervisors, and the continued availability of the Grievance Mechanism, including contractor-level GRM channels for community and worker grievances. Local focal points will be readily accessible to receive feedback and complaints directly from community members and visitors, ensuring that any issues arising during construction are identified and addressed promptly, and that stakeholders remain informed and engaged for the full duration of Project implementation.

10.3. Summary of Stakeholder Feedback and Project Response

Stakeholder consultations were conducted in September 2023 in Osh and Uzgen with representatives of local museums, the Sulaiman-Too and Uzgen historical complexes, the Ministry of Culture, local authorities, and the ARIS regional team. The meetings included presentations of the preliminary design concepts, discussions of site-specific issues, and collection of feedback through SWOT analysis and questionnaires.

The key issues raised and corresponding responses are summarized below. Detailed minutes, attendance lists, and photographs are presented in Annex 1 “Results of the Consultations held.”

Key Issue / Concern Raised	Initial Response / Discussion Outcome	How Addressed in the Project and ESIA
Use of museum courtyard as parking; proposal to convert it into a public exhibition area	Supported by participants	Reflected in landscape design and visitor-flow solutions (ESMP Table 8).
Integration of the mosque area with the museum courtyard (removing separating walls)	Discussed, agreed to consider in future coordination with local authorities	Included in site-planning notes; no new construction beyond approved boundaries.
Narrow roads and stairs on Sulaiman-Too; proposal to use natural stone	Supported by STC Deputy Director	Reflected in material selection guidelines (Section 4.1.1, ESMP).
Inclusive access and visitor infrastructure (ramps, benches, drinking fountains, signage, lighting, rest areas)	Accepted as valid recommendations	Included in ESMP under community health and safety and visitor-management measures.
Collaboration between museum and local artisans (“connection between craftsmen and museum”)	Proposed by project architect; supported	Reflected in ICH (Intangible Cultural Heritage) measures for operation phase.
Scope and design of the new museum in Uzgen (space limitations, form, architectural style)	Directors recommended oval form and use of UHAC brick architecture	Reflected in updated concept parameters and heritage-compliance provisions.
Infrastructure gaps (water, electricity, microclimate systems)	Recorded as limitation	Addressed through small-scale upgrades and operational maintenance actions.
Risk of restricted access during construction	Raised in SWOT analysis	Temporary access and public notification included in ESMP Table 8 and SEP Section 10.3.
Need for digitization, education, and better tourism management	Noted in questionnaires	Addressed through ICH education/documentation measures and institutional capacity support.
Seismic and environmental risks; dome and tower restoration needs (Uzgen)	Recorded by Uzgen Directorate	Structural-safety and OHS provisions included in ESMP and monitoring plan.
Waste and parking issues around the museum garden	Highlighted by museum staff	Reflected in waste-management and operation-phase maintenance measures.
Lack of multilingual services and clear navigation	Identified as weakness	Addressed through visitor-management and interpretive signage measures.

Overall, the consultations confirmed broad stakeholder support for the Project's objectives, provided valuable site-specific recommendations, and helped refine the technical design and environmental and social management measures. All documented feedback was reviewed and, where feasible, incorporated into the ESIA and project design.

10.4. Grievance Redressal Mechanism

ARIS implemented a unified system for processing complaints and appeals of citizens.

An operational manual (regulation) has been developed, which provides procedures for handling appeals and complaints, assigns responsibilities to ARIS officials, and describes measures to control verification. All appeals and complaints of citizens that will be received under the REDP will be sent to a single system for further processing and control. The grievance mechanism is provided to project participants for questions, comments, suggestions and/or complaints, or any form of feedback on all activities financed by the project and ARIS. Project beneficiaries; project-affected persons (i.e. those who will and/or may be affected by the project directly or indirectly, positively or negatively), and the general public can use the GRM to submit complaints orally or in writing. All ARIS projects have established the following communication channels where appeals and grievances at different stages of project implementation can be directed for all issues on the progress of construction of project facilities, environmental and social safety measures, complaints and concerns related to COVID-19, sexual exploitation and abuse (SEA), sexual harassment (SH) and gender-based violence:

Grievance channels

1. Hotline: +996 (550) 70-05-22, (calls are accepted 24 hours a day, the conversation will be recorded); 2.WhatsApp: +996 (770) 70-05-22, (instant messaging system for mobile devices with voice and video support); 3. Social networks (Facebook - FM ARIS); 4. Website: www.aris.kg. 5. Oral or written complaints received during fieldwork meetings; 6. Incoming correspondence via mail to the ARIS office; 7. Incoming correspondence via e-mail: bfm@aris.kg. 8. ARIS CO tel: +996 (312) 301805 (reception) 9.ARIS CO address: 102 Bokonbaev St., Bishkek, Kyrgyz Republic 10. Local focal points at project sites (Sulaiman-Too and Uzgen Complexes) 11. Contractor's GRM (community and workers)	1. Grievances shall be recorded in the Feedback Mechanism log with incoming correspondence and shall be deemed accepted if the following information is present: - FULL NAME; - Address of registration and residence or telephone number; - The content of the complaint; - Other information. If the complaint lacks any of the above information, it is recorded in the FM log and the results of the grievance will be published in the media at the local level, on the ARIS website or announced at the session of rural and urban keneshes (councils). 2. Grievances are entered into the FM configuration in the 1C system for analysis and monitoring. 3. Complaints may be submitted anonymously. Confidentiality shall be maintained in all cases. 4. Local site focal points will receive grievances directly from community members, workers, and visitors. Their contact details will be displayed at construction sites and public access points. All grievances will be recorded and transferred to ARIS for registration and monitoring in the 1C FM system. 5. Each contractor will maintain (i) a site-level GRM for community grievances and (ii) a separate workers' grievance mechanism for labor-related, OHS, or SEA/SH issues. Both mechanisms will ensure confidentiality, non-retaliation, and timely resolution. The contractor will submit monthly summaries to ARIS for review.

ARIS online information platform op.aris.kg and the official ARIS website aris.kg contain information on FM/GRM where beneficiaries and other project stakeholders can leave their appeals or complaints. ARIS online information platform, created during the period of coronavirus epidemic spread and control in the Kyrgyz Republic, plays an important role in receiving feedback from beneficiaries and other project stakeholders. This platform will help to get information or provide feedback to the FM, as well as to get information on the results of studies and surveys conducted by the projects, which contributes to the objectives of the projects and responds to the needs of the beneficiaries. Appeals can be submitted

anonymously. Confidentiality is ensured in all cases, including when the identity of the complainant is known, to avoid stakeholder conflicts.

Steps to process and provide feedback responses.

Step 1. Feedback Registration. For the purpose of consolidation, analysis, and providing unified data (reports to donors, ARIS executive director, and project coordinators), all inquiries are registered in the FM 1C system. In order to execute, the inquiries will be forwarded to the assigned FM/GRM employee to provide a response in coordination with the corresponding project personnel. Inquiries can be submitted anonymously. In case inquiries are received without any of the above-mentioned data, they are recorded in FM 1C, and the results of the inquiry will be published in local media, on the ARIS website, or disclosed during the AK session.

Step 2. Classification of Categories/Distribution by FM/GRM Categories. Upon receiving inquiries, the FM specialist categorizes them in the FM configuration in the 1C system.

No. of category	Classification
1	General questions
2	Grievances regarding violations of policies, guidelines and procedures
3	Grievances regarding breach of contract/violation of contract
4	Grievances regarding misuse of project funds
5	Grievances regarding abuse of power/interference
6	Grievances related to sexual exploitation and abuse (SEA)
7	Sexual harassment grievances (SH)
8	Grievances related to gender-based violence (GBV)
9	Grievances related to violation of labor legislation of the Kyrgyz Republic
10	Force Majeure Reports
11	Proposal
12	Acknowledgements

No.	Protective measures	Classification of measures (during construction and operation)
1	Biological	Flora Fauna
2	Social	Health Security Resettlement Policy Community access to existing utilities preservation of aesthetics and landscape Protection from cultural heritage conflicts
3	Physical	Pollution Water resources Air quality

Step 3. Action/Response. After categorization, cases identified as grievances (categories 2-9) are assigned to the responsible person for investigation if necessary. Employees handling the complaint gather facts and clarify information to create a comprehensive picture of the circumstances that led to the complaint. The investigation typically involves field visits, document reviews, meetings with the complainant (if known and willing to be involved), and discussions with those who can address the issue.

For complaints related to misappropriation of funds, meetings with suppliers and contractors may also be necessary. Complaints involving labor law violations require intervention from the ARIS Human Resources, Legal, and Documentation Department. The responsible person coordinates the action plan with the FM employee and sets deadlines for resolving the issue.

- Complaints related to the construction process are directed to the Project Coordinator by the FM specialist.
- If the complaint pertains to the Central Office, the FM specialist directs it to the Executive Director.
- If the complaint involves a violation of labor laws, the FM specialist directs it to the Project Coordinator.
- The relevant employee and FM specialist decide on the course of action within 2 weeks of receiving the information.

Step 4. Notification. If the person submitting the feedback is not anonymous, they will receive a notification via phone or other FM/GRM channels informing them that their complaint is under investigation. The notification will be recorded in FM 1C. The FM/GRM employee will provide the following information:

- Full name of the executor (project specialist) handling the inquiry.
- Timeframe for resolution (minimum 14 calendar days, maximum 30 working days from the registration date of the inquiry).
- The timeline and course of action are determined in accordance with the ARIS FM instruction for handling inquiries.

Step 5. Execution Monitoring. After completing the investigation, the citizen/beneficiary will receive a notification about the decision made by ARIS regarding their case. If the citizen/beneficiary is not satisfied with the decision resulting from the inquiry, they have the right to appeal. Instructions for filing an appeal will be provided along with the response.

Special Principles for Receiving and Handling SEA/SH Complaints

In line with the World Bank Good Practice Note for Addressing Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) in Investment Project Financing involving Major Civil Works, the GM will apply the following additional principles when receiving and processing complaints related to SEA/SH:

- No identifiable information about the survivor will be stored in the GM.
- The GM will not request or record more than the following information related to a SEA/SH allegation: (i) the nature of the complaint, in the complainant's own words and without direct questioning of the survivor; (ii) whether, to the best of the survivor's knowledge, the alleged perpetrator was associated with the Project; (iii) where possible, the age and sex of the survivor; and (iv) where possible, whether the survivor was referred to services.
- The GM will assist SEA/SH survivors by referring them to a GBV service provider immediately upon receiving a complaint directly from a survivor. This will be possible because a list of available service providers will be established, through a service provider mapping exercise, before commencement of Project works.
- Information recorded in the GM will be kept strictly confidential, in particular with respect to the identity of the complainant. For SEA/SH cases, the GM will primarily serve to: (i) refer the complainant to the appropriate GBV service provider; and (ii) record resolution of the complaint, without documenting details that could identify the survivor.

ANNEXES

Annex 1. Results of the Consultations held

A preliminary concept for the design solutions was presented to key stakeholders through a series of seminars and working meetings. This appendix contains a summary of the consultations held (date, participants/organisations, main issues and comments received) and photographic material. The comments and feedback received were used to refine the concept and design solutions.

Project Approval Meetings

Table: Stakeholder workshop: project approval

Date	Participants		Photo
08.09.2023	Marvi Mazhar, Ruslan Abdildaev, Sadyrbaeva Tamara Orunbaeva Nurperi Mamaraimov Kubanychbek Umaraliev Abdurasultan Tolonov Yu. Ibraimova O. Torogeldieva Kilia Ismailov Abdiraim Torogeldiev Altynbek		
During the meeting, the OCL team presented the Design to the Director of the Fine Arts Museum. The artists participating in the presentation highly praised Marvi Mazhar's presentation of the design concept. Drawing on their knowledge of sculpture, architecture, and painting, they provided substantive feedback. Additionally, the artists emphasized their willingness to share their knowledge over time, as well as their concerns about the existing infrastructure and system. All attendees agreed that the museum should be involved in a more extensive communication development plan. They discussed the museum's collaboration with the neighboring mosque, suggesting that instead of separating the mosque with walls, it could become part of the internal courtyard and open space. The use of the central courtyard as a parking lot received criticism, and it was proposed to transform it into a public area suitable for exhibitions. Since the road leading from the Minaret to the Fine Arts Museum would allow the museum to control the street and support its economic survival, Marvi Mazhar proposed the concept of creating a connection between craftsmen and the museum.			
10.09.2023	Marvi Mazhar		
	Ruslan Abdyldaev		
	Muzafa Jorayev	Designer for the New Museum	
	Sultan Abdyrakhmanov	General Director	
	Torsumbayev Avaz	Ex-director	
	Anarbayev Almazbek	Deputy Director	
The four experts evaluated the project presented by the team during the debates, each possessing knowledge in the areas of construction, materials, design, and museum management. Despite the project's good design, it clearly lacked a program. Ms. Marvi noted that the program would be developed gradually and, due to limited space, would have a narrow focus, although some disagreements arose here. She emphasized the necessity of flexibility and vision for the museum space, something OCL hopes to achieve. Torsumbaev Avaz expressed a desire to create a modern, spacious museum with a facade that harmonizes well with the design of the Uzgen Complex. His goal is to enhance the prestige of the city of Uzgen by increasing its historical significance and cultural diversity. Abdurakhmanov Sultan emphasized the importance of bringing the museum in line with national and international standards. Among the proposed design ideas, he preferred the elliptical shape but, considering the available space, suggested adopting an oval form. Almazbek proposed a budget for the museum's creation and particularly emphasized the need for compliance with standard architecture. He suggested that Ms. Marvi and the hired Uzbek architect work in close collaboration.			
08.09.2023	Marvi Mazhar	OCL Team Leader	

Tokoshev Altynbek Askarbekovich	Osh Main Department of Architecture	
Nazarov Kubanychbek	The architect of the cave museum	
Saparbayeva Nurjamal	STC Deputy Development Director	
Abdyrakhmanov Sultanbek Arstanbekovich	Директор UHAC	
Anarbayev Almazbek	UHAC Deputy Director	
Abdykalykova Gulbara Kadyrbekovna	STC Director General	
Ibaidullaev Khairullo Khabibullaevich	STC Deputy Director for Science	
Israilov Islambek	ARIS Regional Specialist	
Egemberdiev Mirlan	ARIS Regional Specialist	

Feedback collected:

STC Deputy Director for Scientific Work:

Khairullo Ibaydullaev, the STC Deputy Director for Scientific Work, put forward several suggestions in response to the proposed conceptual reconstruction project of the Ethnographic and Archaeological Museum Complex. Firstly, he emphasized the importance of designing the entrance "Mountain Gates" on the north side of the mountain, in addition to the existing "Water" and "Fire" gates built in 2000. He added that as part of the current initiative, the issue of narrow roads and the cave museum in Sulaiman-Too should be addressed first. In particular, he proposed using natural stone for the stairs of the tourist road, as it complements the aesthetics of the mountain and the local climate.

Fine Arts Museum Director:

The leaders of the Fine Arts Museum - Director Baktygul and Deputy Director Myrzagul - expressed satisfaction with the presentation, noting its broad audience, including both leadership and artists whose opinions and suggestions were taken into account. The architectural project received high marks for both aesthetics and functionality. They emphasized the importance of the garden for hosting events and the proposed sidewalk from the mountain to the museum, which could increase accessibility and attract more visitors. They sought a project that harmoniously fits into the landscape of the Sulaiman-Too complex and questioned the feasibility of constructing a new building with spacious interiors. Additionally, they highlighted the necessity of a well-thought-out parking area to avoid potential conflicts.

UHAC Deputy Directors:

Emphasized the importance of adhering to the established master plan for museum construction. They stressed the need to precisely follow the provided dimensions and construct the museum using UHAC's characteristic brick-style architecture. Additionally, it was emphasized that the project must meet all engineering requirements and preserve the integrity of the existing infrastructure.

Director of the Sulaiman-Too National Historical and Archaeological Museum Complex:

Gulbara proposed necessary measures to improve infrastructure: firstly, creating facilities for people with limited abilities to ensure inclusivity. Secondly, installing benches and resting areas strategically placed along tourist and pilgrimage routes for visitor convenience. Thirdly, installing drinking fountains and food points along these routes. Fourthly, installing clear signposts for orientation on the terrain. Fifthly, installing appropriate lighting along the routes to enhance safety, especially at night. Sixthly, creating fire safety points for emergencies. Seventhly, creating facilities for expectant mothers. Eighthly, arranging a parking lot and a resting area at the entrance to the Cave Museum. Finally, including a museum shop for visitor convenience.

Below is the list of consultations conducted in Osh oblast on the project Sulaiman Too Complex:

Date	Location		Stakerholder's position
12.07.2023	ARIS Regional Office, Osh City Hall Building		Infrastructure Engineer for the regional economic development project
13.07.2023	Ethnographic and Archaeological Museum		Director General of the Ethnographic and Archaeological Museum
14.07.2023	Fine Arts Museum		Deputy Director of the Fine Arts Museum

Photo 1. Consultative meeting between environmental and social experts and ARIS.

Photo 2. Meeting of environmental specialists with the General Director of the museum

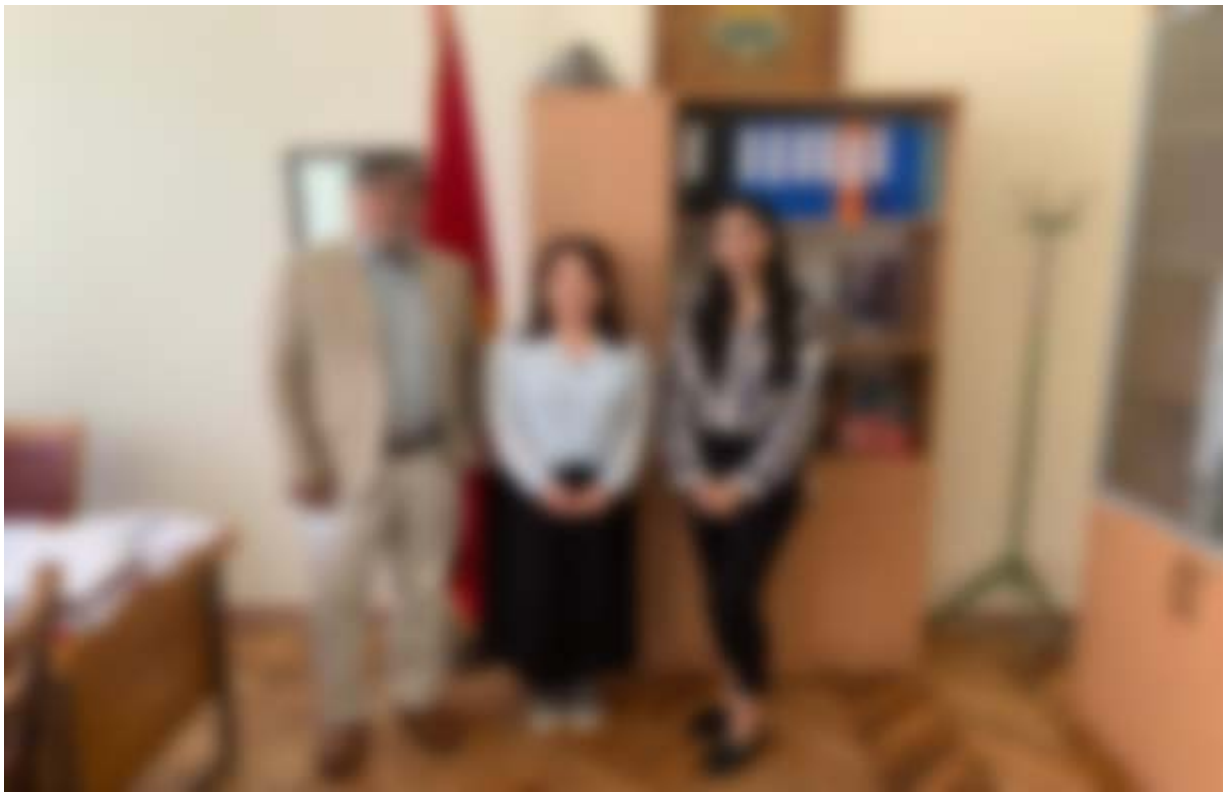
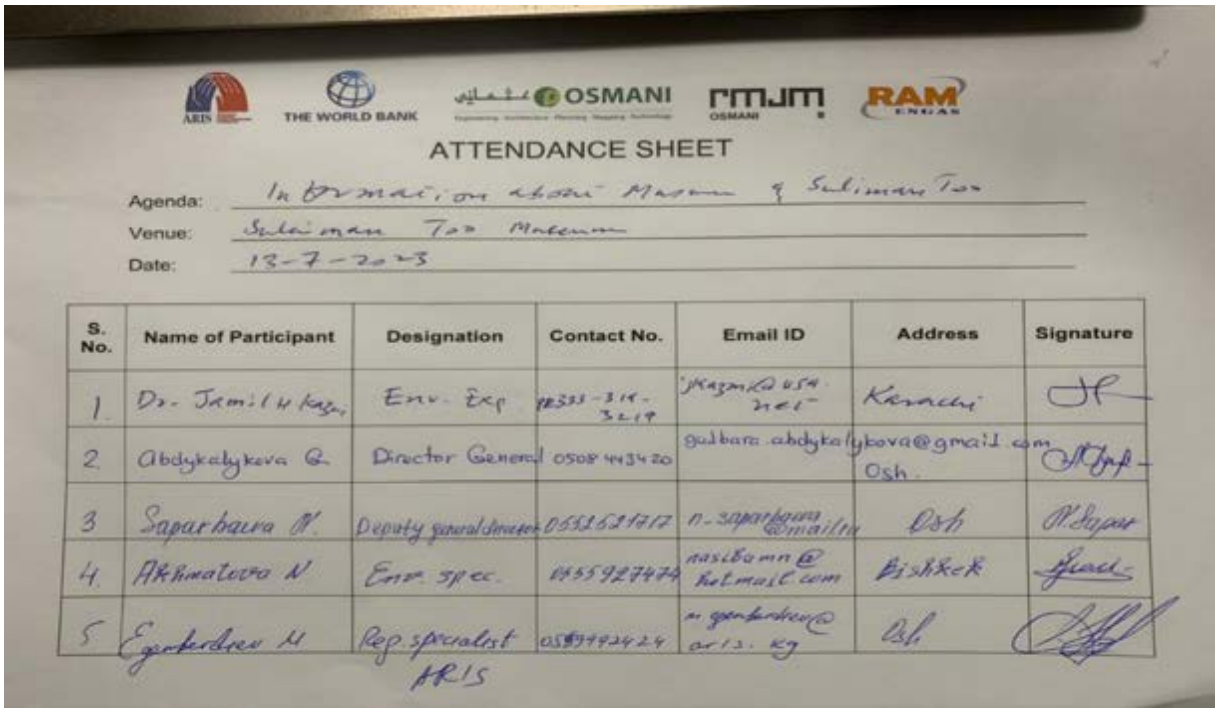


Photo 3. Meeting of environmental specialists with the Head of the Museum Management Department, Ministry of Culture, Kyrgyz Republic



ATTENDANCE SHEET

Agenda: Information about Museum of Suliman Too

Venue: Suleiman Too Museum

Date: 13-7-2023

S. No.	Name of Participant	Designation	Contact No.	Email ID	Address	Signature
1	Dr. Jamil Kazi	Env. Exp	[illegible]	[illegible]	Karachi	
2	Abdykalykova G.	Director General	0508 443420	gulbara.abdykalykova@gmail.com	Osh	
3	Saparbaeva M.	Deputy general director	0551631717	m.saparbaeva@mail.ru	Osh	
4	Akmatova N.	Env. spec.	0555927474	nasibamn@hotmail.com	Bishkek	
5	Egorkovtsev M.	Rep. specialist ARIS	0559992424	m.egorkovtsev@aris.kg	Osh	

Photo 4. List of participants of the meeting at the ARIS regional office

Results of Consultations held

Appendix 1 summarizes the results of face-to-face consultations with representatives of the authorities in charge of museums and government agencies responsible for STC management.

SWOT Analysis of Project Approval

All participants of the workshops were given the SWOT analysis worksheets. These were filled in by them and handed over to the Consultants within 3 days after the workshop.

CLASTER 1.2: Ethnographic and Archaeological Museum and Parade Square of the Burkia Mausoleum	
Strengths:	Weaknesses:
• Historic site of significance for UNESCO • Public interaction • Preservation and conservation of historical artifacts • Architecture of the museum building • The only architectural monument of the XVII century in Kyrgyzstan - mausoleum	• - Electricity, water and sewerage issues • - Limited budget • - Lack of directories • Lack of digitization of documents • Visitor inconvenience: Access to the site may be restricted during construction • Local people may resist changes to familiar heritage sites • Pedestrian connectivity - trails are in poor condition • Lack of modern microclimate and air conditioning system • Lack of communication from one site to another. • Mausoleum needs restoration • Poor condition of the museum building • Lack of infrastructure on the territory of the mausoleum. • Lack of parking lot in front of the museum building • Low staff capacity • Lack of climate control in the museum.
Threats:	Opportunities:
• Environmental hazards (for the mausoleum) • Littering • Government regulation (conservation and protection of nature)	• Increasing the local budget due to the inflow of tourists • Support local artists • Educational initiatives can attract researchers

CLUSTER 2.0: Uzgen Historical and Architectural Complex	
Strengths:	Weaknesses:
• Historic Site of Significance for UNESCO • Educational value • Public involvement • Preservation and conservation of historical artifacts	• Challenges for visitor access: access to the site may be restricted during construction • Pedestrian connectivity - trails are in poor condition • Lack of modern microclimate and air conditioning system
Threats:	Opportunities:
• State regulation (nature conservation and protection)	• Increase of the local budget due to the inflow of tourists

CLUSTER 3: Medieval Bathhouse, Bronze Age Settlement, and Petroglyphs.	
Strengths:	Weaknesses:

• Historic Site of Significance for UNESCO • Educational Value • Community Engagement • Preservation of Historical Artifacts	• Limited budget • Disruption to visitor access: access to the site may be restricted during construction • Local communities may oppose changes to familiar heritage sites • Skilled labour: ainding skilled labour for historic restoration work may be difficult, potentially affecting the quality of the project
Threats:	Opportunities:
• Environmental Threats • Littering and Vandalism	• Tourism Revenue, Boosting Local Budget • Educational Initiatives can attract researchers • Cultural Exchange through International Tourism

Answers to Questionnaires

- **Questionnaires**

	Question
	What are the unique features that distinguish this heritage site?
	What positive contribution has the site made to local culture and identity?
	What historical or cultural values are associated with the site and make it significant?
	Are there any problems or complaints related to the maintenance or preservation of the facility?
	Have there been any negative impacts on the site due to external factors or human activity?
	How has tourism effected the site, both positively and negatively?
	What efforts have been made to manage tourism and ensure a sustainable visitor experience?
	How does the local community perceive and interact with the heritage site?
	Were there any joint initiatives between the management of the enterprise and the local community?
	Can you provide a chronology of the development of the site infrastructure and any interventions by external or internal parties?
	How have previous interventions affected the current condition and significance of the site?
	Are there any anticipated future plans or vision for the development and conservation of the site?
	How do you envisage the development of the site with the preservation of its historical and cultural essence?
	What particular elements or features of the site are considered to be the main attractions for visitors?
	What are your expectations for the preservation, promotion and overall development of the site in the future?
	Are there any landmarks or sites nearby that have a significant relationship or connection to the heritage asset?
	Have there been any environmental issues or constraints affecting the conservation and development of the site?
	Could you provide an overview of the organizational structure responsible for managing and supporting the facility?
	How effective is the existing management structure in safeguarding the site and its attendance?
	Are there any upgrades, renovations or additions proposed that would enhance the value and attractiveness of the site?

	What is the long-term vision for the development, preservation, and role of the site in the community over the next decade?

Specific issues

Fine Arts Museum	Craftsmen Street	Uzgen Historical and Architectural Complex
Could you provide an overview of the organizational structure responsible for managing and supporting the facility?	How does the local community perceive and interact with the heritage site?	Were there any joint initiatives between the management of the enterprise and the local community?
How effective is the existing management structure in safeguarding the site and its attendance?	Can you provide a chronology of the development of the site infrastructure and any interventions by external or internal parties?	Can you provide a chronology of the development of the site infrastructure and any interventions by external or internal parties?
Are there any upgrades, renovations or supplements proposed that would enhance the value and attractiveness of the site?	Are there any anticipated future plans or vision for the development and conservation of the site?	How have past interventions influenced the current condition and significance of the site?
What is the long-term vision for the development, preservation, and role of the site in the community over the next decade?	How have past interventions influenced the current condition and significance of the site?	Are there any anticipated future plans or vision for the development and conservation of the site?
		Could you provide an overview of the organizational structure responsible for managing and supporting the facility?
		How effective is the existing management structure in safeguarding the site and its attendance?
		Are there any upgrades, renovations or supplements proposed that would enhance the value and attractiveness of the site?
		What is the long-term vision for the development, preservation, and role of the site in the community over the next decade?

- **Answers**

Osh City Hall:

The response from the Osh City Hall to the questionnaire regarding Craftsmen Street emphasizes the historical significance of this place. It serves as a testament to the city's past, where an active community of craftsmen played a vital role in servicing pilgrims embarking on a journey to the Sulaiman Mountains. These craftsmen, deeply rooted in local families and traditions, left an indelible mark on the heritage of Craftsmen Street. Remarkably, their legacy endures to this day, as the street continues to resonate with echoes of traditional crafts, including carpentry and blacksmithing. This steadfast connection to the crafts of bygone eras firmly establishes Craftsmen Street as a living link in Osh's rich historical tapestry.

At the heart of the historical and cultural significance of Craftsmen Street lies the Rabat Abdulla Mosque – an architectural masterpiece that serves as a tangible testament to the region's heritage. It is noteworthy that no complaints regarding the maintenance and preservation of this revered structure have been recorded. This indicates that the mosque is under close scrutiny, and efforts are in place to ensure its well-being. Craftsmen Street has maintained its resilience in the face of potential challenges, effectively shielded from the detrimental effects of external factors and human activities that often befall historical sites. This achievement in preservation is commendable, considering the numerous issues faced by many historically significant objects of comparable historical value.

As for tourism, the respondent suggests that its impact on Craftsmen Street is relatively limited. According to the respondent, significant influence is absent, acknowledging that some ancient elements may have gradually lost their significance over time. Nevertheless, the current situation prompts consideration of ways to revitalize this site, not only to increase visitor numbers but also to more effectively highlight its historical and cultural importance.

Tourism management and efforts to provide a sustainable visitor experience have been identified as insufficient in terms of improvement. This suggests potential for enhancement, particularly in more effectively accommodating tourists and enhancing their understanding of the deep historical significance of Craftsmen Street. The local community expresses a strong desire for the site to remain in its authentic state, avoiding modern interventions. Such sentiments underscore the importance of preserving historical and cultural heritage, allowing future generations to firmly connect with the past and deeply appreciate their cultural history. However, direct references to collaborative initiatives between the site management and the local population in this regard are not explicitly mentioned in the responses.

Despite the absence of a detailed timeline of infrastructure development and interventions in the provided information, it can be observed that past interventions have influenced the current state and significance of the site. The presence of preservation and conservation plans indicates a commitment to maintaining the historical legacy and ensuring its continued development. Thoughts on how to develop the site while preserving its history and culture inspire hope. There is a desire to preserve history and share it with people. Unfortunately, there are not many details in the responses about what attracts visitors, suggesting an opportunity to improve the promotion of the site.

The prospects for the preservation, popularization, and overall development of the site are optimistic. It is acknowledged that the integration of modern technologies and the establishment of a robust online presence are crucial. Such an approach aligns with the evolving landscape of heritage preservation and visitor engagement in the digital era. Despite the absence of nearby landmarks directly associated with Remeslennikov Street, it remains a significant cultural heritage of Osh. Fortunately, the street has not encountered serious ecological problems or restrictions that could hinder its preservation and development.

Concerning the organizational structure responsible for the management and maintenance of the site, there is recognition of the need for fresh ideas and a proactive approach to engage with the youth and effectively manage the site. The existing management structure is considered sufficient, contingent upon conducting extensive public outreach efforts.

While specific details are not provided, there is mention of proposed measures for modernizing, reconstructing, or supplementing the site to enhance its value and attractiveness. This indicates a willingness to invest in improving the site. In the long term, the vision for the development, preservation, and role of Craftsmen Street in society remains focused on preserving its historical significance and adapting to changing conditions. These responses demonstrate a clear understanding of the site's value for the residents of Osh and its potential to continue being a cultural heritage for future generations.

Management of the Fine Arts Museum:

The distinctive feature of this site is the involvement of the local community, whose residents actively participate in painting buildings, creating a cozy atmosphere, showcasing artists' works, and organizing a conference hall. Additionally, the museum serves as an educational platform for visitors, introducing them to local culture and artistic creativity.

The positive impact of the museum on local culture is evident in the preservation of works by local artists, emphasizing the crucial role of art in societal life. The historical and cultural values of the museum are significantly shaped by its central location near historical landmarks such as Sulaiman-Too and the Mausoleum. The ancient irrigation canal and proximity to Craftsmen Street add extra value to the museum. Despite its historical significance, the museum faces challenges, including the need for

reconstruction due to limited exhibition space and outdated adjacent roads. External factors such as the use of the garden area for parking and littering also affect its preservation.

Tourism plays a role, positively impacting the museum by attracting visitors who appreciate its unique offerings. However, the absence of audio guides and multilingual support complicates visitor engagement. Efforts to manage tourism and improve service quality are ongoing. There is a need to enhance the perception and interaction of the local population with the facility, especially regarding understanding its historical and cultural significance. Collaborative initiatives between the management and the local community are yet to be implemented.

The development and preservation concept involve constructing a new building for contemporary art, while the existing structure will house a museum of Soviet culture and art. The main attractions will include the museum, works by local artists, and a collection of local paintings. Expectations are optimistic, with a primary focus on integrating modern technologies and creating a robust online presence. The museum is located near the Rabat Abdullakhan Mosque and Craftsmen Street, enriching its cultural context. However, environmental issues such as dust, gas emissions, and pollution require attention.

Currently, the museum's organizational structure includes ten staff members overseeing various aspects of its activities, but improvements in personnel are suggested. Enhancements in lighting, climate control, and presentation are proposed. In the long-term plans, the goal is to preserve the historical and cultural essence of the facility by adapting it to modern requirements.

The garden at the foot of Sulaiman-Too, with an ancient irrigation canal, represents a quiet oasis. Issues include periodic use of the garden as a parking space and littering, necessitating regular cleaning. Tourism impacts the garden, and the staff maintains its cleanliness. Joint efforts have garnered public attention. Future priorities include preserving greenery and ensuring safe parking for students and visitors.

Uzgen Directorate:

The Uzgen Historical and Architectural Complex stands as a testament to the rich history of Central Asia, preserving an extensive array of monumental structures dating back to the 10th-12th centuries. These architectural wonders vividly remind us of the dominance of the Karakhanid state in the region during this period. The historical significance of the complex goes beyond ancient buildings; it played a crucial role in shaping local culture and self-awareness. The city's residents hold this place in such high esteem that it is depicted on the national currency, symbolizing its enduring importance. For tourists and city guests, the Uzgen Complex is a must-visit destination, offering a captivating journey through more than a millennium of history.

Historically, Uzgen held a prominent position as a capital city in the Middle Ages marked by significant achievements in various fields, including agriculture, manufacturing, culture, and science. The prosperity and influence of the city have left an indelible mark on its landscape and cultural heritage. However, alongside pride, there are pressing issues that require attention. One of the main problems is the lack of projects for preserving historically significant lands within the Uzgen Complex. A modern museum with adequate facilities for tourists is needed, along with urgent restoration of domes and towers carrying the weight of history. Improving tourist infrastructure is essential to accommodate the growing number of visitors who come to witness this historical treasure.

Despite minimal negative anthropogenic impact, the complex faces natural challenges such as earthquakes and heavy rainfall, causing damage to ancient structures. The rise in tourism underscores the relevance of restoring and developing the facility's infrastructure to preserve its historical values. Ongoing efforts focus on effective tourism management, providing comprehensive information for visitors, and engaging with the local population through joint initiatives like marathons, festivals, and events dedicated to heritage preservation and popularization.

In the past, especially in the 1970s-80s, significant changes were made to the infrastructure development of the complex leading to its current state. Future plans aim to preserve the historical value of the complex, expand its tourist potential, and possibly achieve inclusion in the UNESCO World Heritage List. Other historical monuments, including mosques, mausoleums, and ancient settlements, enrich the cultural landscape of the region near the Uzgen Complex. However, environmental problems, particularly vulnerability to earthquakes and harsh continental climates, pose challenges. Effective management remains a complex task due to financial difficulties, but the primary focus continues to be on repair, restoration, and conservation. The goal is not only to expand the territory but also to preserve existing historical values. The long-term development perspective of the Uzgen Complex involves creative revival, improving the quality, and modernizing methods of conveying historical information. The objective is to ensure the preservation and popularization of Uzgen's historical and cultural heritage within society over the next decade, strengthening its status as a living testimony to the region's rich history.

The minutes of the public consultations held by both the STC and the UHAC are set out below:

MINUTES OF PUBLIC CONSULTATIONS

on environmental and social issues in connection with the design of the 'Reconstruction of the 'Suleiman-Too' National Historical and Archaeological Museum Complex' as part of the Regional Economic Development Project (REDP)

Date: 1 July 2026

Date and time: 10:00

Venue: The 'Sulaiman-Too' National Historical and Archaeological Museum Complex, Osh, 235/2 Kurmanzhan Datka Street

Number of participants: 46 people, including 19 women (according to the registration form)

Participants at the meeting:

ARIS representative (coordinator) – **Shayloobek Arynov**

ARIS representative – **Ainura Tentieva**

ARIS representative – **Umutbek Raimov**

ARIS spokesperson – **Islam Israilov**

ARIS representative – **Mirlan Yegemberdiev**

Representative of RAM Engineering Associates (Deputy Director) – **Ulan Ishenaliev**

Representative of RAM Engineering Associates (Chief Engineer) – **Bakyt Kermaliev**

Representative of RAM Engineering Associates (Environmental Specialist) – **Asanalieva Nazgul**

Representative of RAM Engineering Associates (social affairs specialist) – Azamat Omurbekov

Representative of RAM Engineering Associates (Project Coordinator) – **Nursultan Ishenaliev**

Representatives of government bodies, the local community, residents of neighbouring areas and other interested parties also took part in the public hearings.

The conduct of public hearings

The public hearing was opened by the ARIS project coordinator, Mr Shayloobek Arynov, who welcomed the participants, introduced the project team and outlined the purpose of the event to those present.

In his opening remarks, he noted that the public hearing was being held as part of the 'Regional Economic Development of the Osh Region and the City of Osh (RED-1)' project, with the aim of informing stakeholders about the planned reconstruction of the 'Sulaiman-Too' National Historical and Archaeological Museum Complex

'Sulaiman-Too', to present the main design solutions, to discuss the environmental and social aspects of the project, and to gather suggestions and comments from the public. It was particularly emphasised that all suggestions and recommendations received would be considered during the further implementation of the project, subject to technical, environmental, economic and regulatory feasibility.

A welcome address was delivered by Mr Shukuraliyevich Madaminov, Deputy Minister of Culture, Information and Youth Policy of the Kyrgyz Republic, who thanked the participants for their interest in the project, expressed his gratitude to ARIS and the World Bank for their ongoing support in preserving sites of historical and cultural heritage, and spoke in detail about the significance of the forthcoming restoration of the National Historical and Archaeological Museum Complex 'Sulaiman-Too' to preserve the country's cultural heritage and develop the region's tourism potential.

Akylbek Abdishokurovich Sadirov, Deputy Head of the Interregional Directorate for the Southern Region of the Ministry of Economy and Trade of the Kyrgyz Republic, thanked ARIS and the World Bank for their many years of fruitful cooperation in implementing development projects in the city of Osh. In his speech, he emphasised the strategic importance of the museum complex's reconstruction, highlighted the prospects for further strengthening its international status –

including issues relating to UNESCO World Heritage sites – and announced that the project is in the final stages of design, which allows the main technical solutions to be presented to the public.

During the discussion, participants enquired about the timeline for the completion of the design phase and the start of construction and installation works.

In response to a question, Mr Shailoobek Arynov stated that the development of the design and cost estimate documentation was virtually complete, and that the working drawings and the estimated project cost had been prepared; following this, procurement procedures to select a contractor would commence. At the conclusion of the introductory session, the floor was given to the project specialists to deliver thematic presentations.

Environmental aspects of the project

The project's environmentalist, Ms Nazgul Asanalieva, gave a presentation.

During the presentation, information was provided on the objectives of the PRER-1 project, the current technical condition of the museum complex, and the need for renovation whilst ensuring the unconditional preservation of its historical, cultural and architectural value.

The speaker noted that the project primarily involves major refurbishment of existing buildings without altering their historical appearance or spatial layout. To minimise the impact on cultural heritage sites, the plan is to make maximum use of manual labour and limit the use of heavy construction machinery.

Participants were presented with the main potential environmental impacts associated with the construction works, including the generation of construction waste, noise and dust pollution, as well as possible risks of environmental contamination. It was noted that these impacts are temporary, localised and manageable, and will be minimised through the implementation of the Environmental and Social Management Plan (ESMP), which will be developed during the design phase and finalised by the contractor prior to the start of construction works.

During the project's implementation, particular attention will be paid to environmental monitoring, noise control, dust suppression measures, the management of construction waste, and strict compliance with environmental legislation, taking into account the site's high historical and cultural value.

Social aspects of the project

The presentation was given by the project specialist, Mr Azamat Omorbekov.

During the presentation, it was noted that the project includes a range of measures to improve accessibility to the museum complex for people with reduced mobility, including the installation of ramps, lifting platforms, safe pedestrian routes and wayfinding features for people with visual and hearing impairments.

In addition, participants were provided with information about the Feedback and Complaints Handling Mechanism currently in place at ARIS, through which members of the public can submit enquiries, suggestions, applications and complaints at all stages of a project's preparation and implementation.

Presentation of design solutions

The project's chief engineer, Mr. Bakyt Kermaliev, presented the key technical solutions and stated that the project involves the refurbishment of the museum complex's facilities, which are grouped into nine functional zones:

- The Gates of Fire — construction of a visitor center, a carport for four golf buggies and the development of the entrance area;
- Water Gate — construction of a ticket office, public toilet and kiosk using lightweight structures, as well as refurbishment of the entrance area;
- Mountain Gate — construction of a ticket office, a kiosk, a public toilet and the entrance area;
- Administrative complex — demolition of existing buildings and construction of a new administrative building;

- Cave Museum — major refurbishment of the premises, waterproofing works and reconstruction of the arch at the upper viewing platform;
- Burkhiya Mausoleum — major refurbishment of the site and landscaping of the surrounding area;
- Ethnographic Museum — major refurbishment of the façades, replacement of stained-glass windows and landscaping of the grounds;
- Mountain trail — major refurbishment of the route, cladding of steps with granite tiles, creation of rest areas, installation of staircases, handrails and protective netting against rockfalls, and reinforcement of existing guardrails;
- Golf cart track — laying of an asphalt concrete surface, installation of a drainage system, landscaping of the surrounding area and repair of existing fencing.

During the discussion, participants asked questions regarding the project's timeline and how the museum complex would operate whilst construction work was underway.

Mr Bakyt Kermaliev explained that the design organisation is responsible for preparing the design and cost estimate documentation, whilst the execution of the construction works falls within the remit of ARIS.

Mr Shayloobek Arynov stated that the renovation is tentatively scheduled for completion by the end of 2028. However, there are no plans to close the museum complex entirely during the construction period — the works will be carried out in phases, whilst allowing visitors to access certain parts of the complex.

Mr Umutbek Raimov, a representative of ARIS, further informed participants about the procedures governing the feedback mechanism and the complaints handling process, emphasising that complaints may be submitted at any stage of the project's implementation.

Questions from participants

Ms Mavlyuda Bulazhanova, a resident of the neighbouring area, asked questions regarding the removal of metal fencing at the burial sites located within the complex, as well as the sources of funding for the project.

In response, Mr Shayloobek Arynov stated that the project is being implemented by the Government of the Kyrgyz Republic with financial support from the World Bank.

It was specifically clarified that all construction, installation and landscaping works would be carried out exclusively within the boundaries of the project areas and locations presented during the public consultations. The area of the existing cemetery, burial sites and other areas not included within the boundaries of the project works will not be affected. Accordingly, the project does not envisage the removal of metal fencing at burial sites.

Regarding the dismantling of metal fencing, Akylbek Abdishokurovich Sadirov provided clarification, stating that the decision had been taken following inspections which revealed an increased fire risk and the unsatisfactory technical condition of most of the structures due to their significant physical wear and tear.

It was also noted that all measures were carried out with the participation of representatives of the Muftiate of the Kyrgyz Republic, in compliance with the requirements of current legislation and religious traditions.

During the subsequent discussion, participants requested further information on the landscaping of the complex's grounds.

Project representatives reported that the project envisages the reconstruction of the main footpath, the rectification of existing defects in the surfacing, the creation of safe pedestrian infrastructure, the establishment of routes for golf buggies, and comprehensive landscaping of the site. The use of heavy construction machinery will be kept to the absolute minimum.

Participants also enquired about the fitting out of the facilities with modern engineering systems. Representatives of the project team explained that the project provides for the installation of all necessary engineering systems to ensure the safe and comfortable operation of the buildings.

A separate issue concerned the installation of outdoor lighting for the complex's grounds.

Ms Ainura Tentieva explained that, given the site's high historical and cultural value and the need to preserve its historical landscape, the project does not envisage any large-scale architectural lighting. At the same time, the design solutions will fully comply with the requirements of legislation governing the protection of cultural heritage sites.

At the conclusion of the public consultation, participants raised the issue of the CCTV system. Representatives of the project team stated that the project provides for the installation of a modern CCTV system to enhance visitor safety and ensure the security of the museum complex's facilities.

Results of the public consultations

Following the public consultation, participants were briefed on the aims, objectives and key technical solutions of the 'Regional Economic Development of the Osh Region and the City of Osh (PRER-1)' project, specifically regarding the reconstruction of the 'Sulaiman-Too' National Historical and Archaeological Museum Complex.

During the event, representatives from ARIS and the project organisation presented the design, environmental and social solutions, explained the expected outcomes of the project, the potential environmental and social impacts, and the measures planned to prevent and minimise them.

The main questions from participants concerned the project timeline, the organisation of construction works, the operating arrangements for the museum complex during the reconstruction period, sources of funding, measures to preserve, the improvement of the surrounding area, improving accessibility for people with reduced mobility, the organisation of outdoor lighting, the installation of a CCTV system, and the removal of metal fencing at burial sites.

Comprehensive explanations were provided to participants on all the questions raised.

The comments and suggestions raised during the public consultation will be considered in accordance with established procedures and, subject to technical, environmental, economic and regulatory feasibility, taken into account at subsequent stages of the project's implementation.

Participants in the public consultation expressed their support for the implementation of the project to renovate the 'Sulaiman-Too' National Historical and Archaeological Museum Complex

'Sulaiman-Too', noting its importance for the preservation of the historical and cultural heritage of the Kyrgyz Republic, the development of tourism infrastructure, the improvement of the museum environment and ensuring the site's accessibility to residents and visitors to the city of Osh.

Participants expressed an understanding of the possible temporary inconveniences associated with the construction work and agreed to its continuation.

No further comments or proposals regarding environmental or social issues were received.

Secretary of the meetir
Umutbek Raimov

Appendices:

Registration list of participants Photographs from the public hearings

Appendix: List of participants

Катышуучулардын тизмеси

Компонент № __

Иш-чаранын аталышы: **«Сулайман-Тоо комплекси жана Өзгөн тарыхый-архитектуралык комплексин реконструкциялоо жана модернизациялоо» долбоору боюнча Экологиялык жана социалдык чөйрөгө тийгизүүчү таасир боюнча**

Өтүүчү жер: "Сулайман-Тоо" улуттук тарыхый-археологиялык музей комплекси

Дата: 01. 07. 2026

Катышуучулардын жалпы саны 46 анын ичинен аялдар 19

№	Аты жөнү	Кызматы/ иш орду	Телефон	Жынысы	Колу
1.					
2.					
3.					
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9.					
10.					
11.					

12.	Шамшиева С.	ул. А.Добко	0778592600		[signature]
13.	Муканжанова И.	К-Датка 33	0559296599	А	[signature]
14.	Козиева	Г. Айтиев	0553871090	А	[signature]
15.	Разыкова	Г. Айтиев	0555049407	А	[signature]
16.	Сариев М	УТМК	0559500651	Э.	[signature]
17.	Абдумажитов сул.		0555211441	Э	[signature]
18.	[illegible]		0555474402	Э	[signature]
19.	Саттыбалдиева	Алымбек Д.	0555140365	Ж	[signature]
20.	Токушова М.	А.Датка 319	0779-66-61-88	Ж	[signature]
21.	Искендер у Ш.	г. Ош	0777119845	Э.	[signature]
22.	Жумабаев Б.	гл. спец. МРУ МЭК КР	0551840048	Э.	[signature]
23.	Сайдимомтов Ш.	вед. спец. МРУ МЭК	0990 990077	Э.	[signature]
24.	Садыров А.	зам. рук. МРУ МЖКР	0776926363	Э	[signature]
25.	Бдравонсова	Сулайман ТОО МАБ	070401-02 21	А	[signature]
26.	Багышева	А. Датка 351/43	0559 200885	А.	[signature]
27.	Карашева Г.С	ул. Алиева 190/14	0772 314-319	А	[signature]
28.	Асанова С.	УТ МКА	070803 6194	А	[signature]
29.	Эмбаев. Э	Сулайман ТОО Экскурсовод	0225 50-50-65	Э	[signature]
30.	Жумбаникова Д	УТМКА	0553894 151	А	[signature]

31.	Эргешдоров И.	"Сулайман тоо"	0555 121355	Э	[signature]
32.	Егембердиев И	ПРЭР АРИС	559492424	М	[signature]
33.	И. Иргашов	ПРЭР АРИС	055146 0205	М.	[signature]
34.	Салиев. У	г Ош	0555586158	М	[signature]
35.	Байкишиев Р.	Ош РУ	0891 88-68 48	Э	[signature]
36.	Турдубаева	Мап Сулайм	709040577	а	[signature]
37.	Рахимов У	АРИС	0551102566	Э	[signature]
38.	Кермалиев Ба	RAM	0708004373		[signature]
39.	Ашенолиев У.	RAM	0550996512		[signature]
40.	Имеиношев И.	RAM	0556636785	Э.	[signature]
41.	Баронов Р.	RAM	0890168355	Э	[signature]
42.	Омордиев	RAM	0772011856	Э	[signature]
43.	Жумабаев К	А Ош	0772 4602	Э	[signature]
44.	Токтосунов Канып	г Ош	0554421424	Э	[signature]
45.	Мамашукиеву	А Ош	0704214024		[signature]
46.	Асанашева И.	RAM	0555325024	Ж	[signature]
47.					
48.					
49.					


ОВОСС: экологические
и социальные вопросы
Комплекс Сулаиман-Тоо, г. Ош
1.07.2026

MINUTES OF PUBLIC CONSULTATIONS

on environmental and social issues in connection with the design of the 'Reconstruction of the Uzgen Historical and Architectural Complex' as part of the Regional Economic Development Project (REDP-1)

Date: 2 July 2026
Time: 10:00
Venue: Uzgen, Uzgen Town Hall, 117 Lenin Street
Number of participants: 54 people, including 15 women (according to the registration list)
Meeting participants:
ARIS representative (coordinator) – Shayloobek Arynov
ARIS representative (consultant) – Ainura Tentieva
ARIS representative (environmental specialist) – Umutbek Raimov
ARIS representative (regional environmental specialist) – Mirlan Yegemberdiev
RAM Engineering Associates representative (Deputy Director) – Ulan Ishenaliev
RAM Engineering Associates representative (Chief Engineer) – Bakyt Kermaliev
RAM Engineering Associates representative (environmental specialist) – Nazgul Asanalieva
Representative of RAM Engineering Associates (social affairs specialist) –Azamat Omurbekov
Representative of RAM Engineering Associates (Project Coordinator) – Nursultan Ishenaliev
Representatives of state bodies, local authorities, residents of neighboring areas, representatives of the local community, and other interested parties also took part in the public hearings.

The conduct of public hearings

The public consultation was opened by the ARIS project coordinator, Mr Shayloobek Arynov, who welcomed the participants, introduced the project team members and outlined the purpose of the event to those present.

It was noted that the consultations are being held as part of the implementation of the Regional Economic Development Project (REDP-1) in accordance with the requirements of the World Bank's Environmental and Social Framework Policy and are aimed at ensuring that stakeholders are openly informed about the planned reconstruction of the Uzgen Historical and Architectural Complex, presenting the main design solutions, discussing potential environmental and social impacts, and gathering suggestions and comments from the public.

It was particularly emphasised that all suggestions and comments received would be taken into account during the further development and implementation of the project, within the limits of technical, regulatory and financial feasibility.

In his speech, Mr Shailoobek Arynov noted ARIS's successful implementation of a number of infrastructure projects in the town of Uzgen, including the construction of a new pedestrian bridge and the renovation of the town stadium and its adjacent park, emphasising that the experience gained would ensure the high-quality implementation of this project as well.

The Mayor of Uzgen, Mr Nurlanbek Saipbaev, delivered a welcoming address, in which he expressed his gratitude to ARIS for its consistent implementation of urban infrastructure development projects. He highlighted the exceptional historical and cultural value of the Uzgen Historical and Architectural Complex, which is one of the most important cultural heritage sites in the Kyrgyz Republic, and expressed his confidence that the project would help preserve the site for future generations and enhance its appeal to tourists.

To conclude the introductory part, Mr Shailoobek Arynov thanked representatives of state bodies, local authorities and relevant services for their constructive cooperation during the preparation of the project documentation and proposed moving on to the presentation of the project.

It was specifically clarified that all construction, installation, restoration and landscaping works would be carried out exclusively within the boundaries of the plots specified in the project documentation to be approved. Land plots and areas outside the project boundaries would not be affected.

Ms O.V. Tereshchenko, Chief Specialist at the Republican Inspectorate for the Protection of Historical and Cultural Heritage, noted that all types of construction, installation, restoration and earthworks will be carried out

under the constant supervision of the authorised state body responsible for the protection of cultural heritage sites, in compliance with the requirements of the current legislation of the Kyrgyz Republic.

39. **Environmental aspects of the project**

The presentation was given by Ms Nazgul Asanalieva, an environmental specialist.

During the presentation, participants were provided with information on the project's objectives, the current technical condition of the Uzgen Historical and Architectural Complex, and the need for its reconstruction whilst ensuring the preservation of the site's historical, architectural and cultural value.

It was noted that the project primarily involves major repairs and restoration of existing structures without altering their historical appearance or architectural identity. To minimise any potential impact on the cultural heritage site, the plan is to make maximum use of manual labour, with limited use of heavy construction machinery and specialised equipment.

The results of the project's environmental and social risk assessment were presented to the participants. It was explained that the main potential impacts are associated exclusively with the construction phase and include the generation of construction waste, a temporary increase in noise levels and dust levels, local access restrictions, an increase in construction traffic, and other typical construction-related impacts.

It was noted, however, that these impacts are temporary, localised and manageable, and will be minimised through the implementation of the Environmental and Social Management Plan (ESMP), which will be developed as part of the project documentation and further detailed by the contractor prior to the start of construction works.

Particular attention will be paid during the project's implementation to:

- - the preservation of cultural heritage sites;
- - environmental monitoring;
- - monitoring of air quality and noise levels;
- - dust suppression;
- - management of construction waste;
- - preservation of green spaces;
- - health and safety of workers;
- - ensuring public and fire safety;
- - safe management of visitor and vehicle traffic during the construction period.

It was further explained that, in accordance with the World Bank's Environmental and Social Framework, the project has been classified as 'Significant Risk', due to the following circumstances:

- - The works are to be carried out on the site of a cultural heritage property situated in a densely built-up urban area with high levels of tourist activity;
- - The main impacts are limited to the construction period and are temporary in nature;
- - The project does not involve the expropriation of land, the physical resettlement of the population or forced economic displacement;
- - Upon completion of construction, particular attention will be paid to the operation of the site, the management of tourist flows, the maintenance of the site's cleanliness and the provision of fire safety;
- - All environmental and social requirements will be integrated into the Environmental and Social Management Plan, the Contractor's Management Plan, the tender documentation and the construction supervision system.

Social aspects of the project

Mr Azamat Omurbekov, a social affairs specialist, gave a presentation. The speaker explained that the project aims to create a barrier-free environment and ensure the complex is accessible to people with reduced mobility through the installation of ramps, lifting platforms, tactile navigation features, as well as
other solutions that meet modern inclusivity requirements.

Particular attention has been paid to occupational health and safety, ensuring public safety during the construction period, keeping local residents informed about the project's progress, and engaging with all stakeholders.

Mr Umutbek Raimov, a representative of ARIS, briefed participants on the existing feedback mechanism, through which members of the public can submit enquiries, suggestions and complaints at all stages of the project's implementation. It was noted that all submissions must be registered, reviewed and responded to with an official reply to the applicants within the stipulated timeframes.

Presentation of technical design solutions

The project's chief engineer, Mr Bakyt Kermaliev, thanked representatives of central and local government bodies for their constructive cooperation in approving the project documentation and announced that the project is in its final stages of development.

Participants were presented with the key technical solutions, which involve the refurbishment of the complex's existing facilities, the construction of a new museum building and the modernisation of the engineering infrastructure.

The main activities of the project include:

1. Entrance area and communal spaces:
   - improvements to entrance areas;
   - creation of safe pedestrian routes;
   - installation of outdoor lighting;
2. Installation of modern wayfinding features. Landscaping of the site
   - • repair of existing pedestrian surfaces;
     • installation of small architectural features;
     • landscaping of the site;
     • creation of sanitary facilities and comfortable rest areas for visitors.
3. Administrative building

Following the results of a technical survey and the report by the Institute of Seismology, the existing administrative building has been deemed unsafe and unfit for further safe use. The project provides for:

• the demolition of the existing building;

• the construction of a new administrative building utilising modern, energy-efficient and earthquake-resistant structural solutions.

4. New museum building

The project involves the construction of a new three-storey museum complex with a total area of approximately 1,600 square metres, equipped with modern building services, a CCTV system, solar panels and a new transformer substation.

Construction will take place exclusively on state-owned land in compliance with the legislation of the Kyrgyz Republic, the World Bank's environmental and social standards, as well as requirements relating to health and safety, industrial safety and site management. 5. Engineering infrastructure

The project provides for the connection of the facilities to existing water supply and sewerage networks on municipal land, with the mandatory restoration of any damaged public amenities following the completion of construction works.

Questions from participants

During the public consultations, participants generally gave a positive assessment of the proposed design solutions and expressed their support for the project's implementation.

Most of the contributions were of an informative and advisory nature. Participants highlighted the importance of the project for preserving the historical and cultural heritage, enhancing the tourist appeal of the town of Uzgen, creating comfortable conditions for visitors and developing the town's infrastructure.

Representatives of ARIS and the project organisation provided the necessary clarifications on issues relating to the project's implementation timeline, the organisation of construction works, the preservation of cultural

heritage sites, compliance with environmental requirements, the operation of the museum complex during the construction period, and the procedure for handling members of the public's enquiries.

No questions or comments were raised during the public consultations that would require changes to the proposed design solutions or further design work.

Results of the public consultations

Following the public consultations, participants were briefed on the aims, objectives and key technical solutions of the project, as well as the environmental and social aspects of the 'Regional Economic Development of the Osh Region and the City of Osh (REDP-1)' project, specifically regarding the reconstruction of the Uzgen Historical and Architectural Complex.

Representatives of ARIS and the project organisation presented design solutions for the reconstruction of the complex's existing structures, the construction of a new
museum building, the landscaping of the site, the development of engineering infrastructure, and measures to prevent and minimise potential environmental and social impacts.

Participants received comprehensive explanations regarding the implementation of the project, compliance with the legislation of the Kyrgyz Republic and the World Bank's Environmental and Social Standards, the organisation of construction works, the preservation of cultural heritage sites, the ensuring of public safety, and the functioning of the ARIS Feedback Mechanism.

Following the discussion, no substantial comments or proposals requiring adjustments to the project design were received. Overall, the participants gave a positive assessment of the materials presented, noting the project's great significance for the preservation of historical and cultural heritage, the development of Uzgen's tourism potential, and the improvement of museum infrastructure.

ARIS representatives confirmed that should any further proposals or comments be received during subsequent stages of the project's implementation, all submissions will be considered in accordance with established procedures and, where technically, environmentally, economically and regulatory feasible, taken into account during the project's implementation.

The public consultations were concluded in a productive and constructive atmosphere. These minutes have been drawn up following the event and reflect the main issues discussed during the public consultations.

Secretary of the meeting:
Umutbek Raimov

Appendices:
Registration list of participants Photographs from the public hearings

Катышуучулардын тизмеси

Компонент № __

Иш-чаранын аталышы: **«Сулайман-Тоо комплекси жана Өзгөн тарыхый-архитектуралык комплексин реконструкциялоо жана модернизациялоо» долбоору боюнча Экологиялык жана социалдык чөйрөгө тийгизүүчү таасир боюнча**

Өтүүчү жер: Өзгөн шаарынын мэриясынын жыйындар залы

Дата: 02. 07. 2026

Катышуучулардын жалпы саны 54 анын ичинен аялдар 15

№	Аты жөнү	Кызматы/ иш орду	Телефон	Жынысы	Колу
1.	Садыров. А.	МРУ МЧК КР	0505428342	Э	
2.	Сайдумаматов [illegible]	МРУ МЧК КР	0990 990077	Э.	
3.	Ташматов Абдурахим	Арзыгер кеңешч	0557 7725-15	Э	
4.	Шакирова Гүлсун	Соц. педаг	055034 19-45	А	
5.	Асматова Назира	[illegible] аймактык кеңеш [illegible]	0554 00 61 86	А.	
6.	Исабаева Мамлакат	ОКТ кв. Сарыкол	0755 79 80 83	А	
7.	Мамытова Саламатхан	Ясак и Өзгөн	0777 65 4731	А.	
8.	Султонов. Солижонова	Аялдар кеңеши Куйганъяр	0550 35-68-35	А.	
9.	Нурзаада Ниязова	Косчевкие ЗК [illegible]	0559130400	А	
10.	Тохтаназарова Марина	U. [illegible] УК [illegible]	0437288887	А.	
11.	Терещенко О. В.	[illegible]	0559189910	ж	
12.	Турсунбаев А	Зав. корп. сотр ГИКМЗ Өзгөн	557122860	М	

13.	Кочкорбаев	ак со кол сот	559006990	Э	
14.	Рахманов М	[illegible]	0555[illegible]	[illegible]	
15.	Ибрагимов И	Килиz Бу Рхан кварт	05520005 44	Э	
16.	Анорханов Медербек	Сулайман-Тоо улама дарегтор	0773650087	Э	
17.	Абдразимова Миражан	7-15 Чуй Бек. көч. [illegible]	0552601900	А	
18.	Тургуев Жабибулло	Кв. Комитет тунан торагасы	0555310902	Э	
19.	Джакыпов Зилизин	кв. Ком. торагасы	0559333446	Э	
20.	Орозов Максатбек	кв. Ком. торагасы	0557714772	Э.	
21.	Абдурахмонов Абдурахим	жөрбасы №2	0554 474737	Э	
22.	Шарабидинов	Узген Торх-м	0556012601	Э	
23.	Гайбатов Юладибек	Узген Тарх м	0551 901708	Э	
24.	Ташев Байдыр	Узген Тарр. м	0998590051	Э	
25.	Умарахунов Абдымамат	Узген тарых м.	0990291155	Э	
26.	Уметаскупов	Узген Гүзар көл	0550 221737	Э	
27.	А. Мамадиев	Узген Гүзар Охоно	0559 264465	Э	
28.	Сатинбеков У	Озгон Шаа сы бол бас	0555 600238	Э	
29.	Анарбаев А.	Музей кызм.	0557 93 0257	Э	
30.	Исмаилов А	Музей.	0557.41 44 08	Э	
31.	Анарбаев М.	Музей	0504.08 40 11	А	

32.	Маматкасымов Мирзалиг	Өзгөн шаардык кирпич завод	0555-66-00-58	Э	[signature]
33.	Кутманбекова Жылдыз	Өзгөн ... соц өнүгүү	0999 277706	А.	[signature]
34.	Аринов Абдымаликович ...	координатор ПРЭР АРИС	0553 540050	Э	[signature]
35.	Жанбаев Кубатбек Жапарбекович	М/р Өзгөн мэр	0554414114	Э	[signature]
36.	Шамаматов Нурилло Маматкаримович	Тораға Г.К бас. г. Узген	0557186168	Э	[signature]
37.	Абдырахманов Султанбек Арстанбекович	Өзгөн шаар ... директору	0559525234	Э	[signature]
38.	Розакулов Шакир Насирович	Өзгөн шаар кеңеш	055381 8211		[signature]
39.	Саматкулова Султанкан	Кайрагач айыл окмоту кеңеш	0550 35-68-35	А.	[signature]
40.	Мирзакаримов Мирзамахмуд	Депутат гор. кенеш	0552 159959	Э	[signature]
41.	Мирзахалилов Ролан	пред ...	0559 381918	Э	[signature]
42.	Б. Хайдаров	МПБ ...	0555 723344	Э	[signature]
43.	Ташматов ТК	МАБ-3	0555 266132	Э	[signature]
44.	Маматкасымов Х	МПБ-17	0755 242400	Э	[signature]
45.	Байкишиев	КР МРЕПК Ош РУ	0557 88-68-68	Э.	[signature]
46.	Зияев Т	КР ЭР ... Т.К. Менам Өзгөн окр.	0774 567444	Э	[signature]
47.	Тешиева А.	консультант АРИС	077257 0378	А	[signature]
48.	Ешимбеков М	ПРЭР АРИС	0559442424	М	[signature]
49.	Оморов А	Нач. бухгалтер	0558777677	Э	[signature]
50.	Рахимов Ч.	АРИС Ікыл	0551102566	Э	[signature]

51.	Ишенашев Нурсултан	RAM	0556 656788	Э	
52.	Ишенашев Улан	RAM	0550 996312	Э	
53.	Керимкул Бакыт	RAM.	0708604379	Э	
54.	Исенашев И.	RAM	0557 328024	А	
55.					
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Annex 2. Social risks and environmental impacts evaluation checklist

Likely social impacts	Yes	Not	Provide details/quantity if possible
SOCIAL IMPACTS			
Will there be new construction work?	+		Reconstruction and construction
Will there be modernization, rehabilitation or repair of existing facilities?	+		Reconstruction of existing facilities and construction of new elements
Does the work require the acquisition of private land or the acquisition of additional municipal land?		+	
Will the project potentially involve temporary or permanent and full or partial economic displacement (eg loss of assets or access to resources due to land acquisition/donation or access restrictions - even in the absence of physical displacement)? (Specify in the comments what type of offset is expected)		+	
Is there any temporary impact on the community?		+	
Is there any estimate of the likely number of people who will be displaced as a result of the Project?		+	
Are any of them poor, female heads of households or at risk of poverty? Provide some appreciation		+	
Is there any temporary or permanent physical displacement of people/children due to construction, renovations?		+	
Will this interference cause unintended consequences such as accidents, damage to neighboring buildings, irrigation, etc.?		+	
Are there any vulnerable groups that may be adversely affected by project interventions?		+	
Will access to public facilities, residential buildings be restricted as a result of economic activity or construction / repair work?		+	
Is land available for the mobilization of materials or transport for construction work on the existing site (Right of Way)? If not, please provide details of location, availability, etc.	+		
Will the Project potentially reproduce discrimination against women on the basis of gender, especially in relation to access to assets, opportunities and benefits?		+	
Will the Project potentially limit the ability of women to use, develop and protect natural resources, given the different roles and positions of women and men in accessing environmental goods and services?		+	
Will the project result in land use restrictions and/or easement rights? Specify the details in the comments.		+	
Will there be loss of income sources and livelihoods due to the acquisition/donation of land under the subproject?		+	
ENVIRONMENTAL IMPACT			
Please describe proposed infrastructure locations			Osh and Uzgen city
Are there protected areas, forest lands, national parks, sanctuaries or wildlife sanctuaries near your project site (up to 3 km)?		+	
Are cultural or historical places, monuments of nature and architecture, ethnic values located on the site/near it (up to 500 m away)?	+		Nearby the Sulaiman-Too Complex (STC): • Osh Regional Museum of Fine Arts named after T. Sadykova • Kyrgyz-Cossack Leisure Museum (located near the monument to Abai Kunanbai uulu) • Monument to Batyraly Sydykov • Monument to Gapar Aitiev Nearby the Uzgen Historical and Architectural Complex (UHAC): • Monument to Salizhan Sharipov • Monument to Sagynbai uulu

			Zhanybek Kazy
Is the site located along the route of migratory birds or other migratory animals?		+	
Are you aware of any geological phenomena at the proposed site, such as faults, landslides, mudflows, rockfalls or unstable soil structure, that may affect the site or site?		+	
How far is the nearest river, stream or lake from the site (up to 1 km)?		+	
Will the risk of flooding from your proposed activity increase?		+	
Does the site require excavation, embankment placement, or removal of bedding (such as gravel) from a river, stream, or lake?		+	
Will the project activity result in the extraction of natural resources, such as granite, limestone, coal, lignite, oil, or gas?		+	
Will the project activity interfere with the operation of above ground or underground utility lines such as communications, water supply, sewerage or natural gas?		+	
Does your project activity require a source of potable water?		+	
Do you know what is the depth of groundwater at the site, m?		+	Unknown
Does your project activity involve the abstraction of groundwater or surface water?		+	
Will your project activity use construction machinery grader, excavator, etc.?	+		
Will the project activities interfere with the operation of the drainage systems?		+	
Will project activities, such as construction, renovation, demolition, result in increased noise or light pollution that could negatively impact nature or habitats?		+	There may be brief and intermittent noise during repair, renovation and improvement works. However, the works are limited in scope and are being carried out within existing cultural heritage sites; therefore, the impact will be temporary and localized, and will not have a significant effect on the local population or the natural environment.
Does the work involve the removal of asbestos-containing materials or the use of building materials that may contain asbestos, formaldehyde (chipboard, plywood, etc.) or other toxic materials (mercury-containing fluorescent lamps, transformer oil, pesticides, poisonous lead-based paints, etc.) .)?		+	
Does your project generate/need to process and dispose of medical waste?		+	
Will the project activity affect soil contaminated with toxic or hazardous materials?		+	
Will the project activity result in increased emissions of air pollutants from discharges or fugitive emissions, eg soot, sulfur dioxide, nitrogen oxides, volatile organic compounds, methane?		+	
Will there be an increase in odor and/or noise levels during your activities?	+		
Is your project activity related to animal husbandry and will it result in the release of animal waste such as manure or blood into surface water, soil?		+	
Will your project activities include the removal or felling of trees, shrubs?		+	
Will the project activity use solid fuel, fuel oil, waste oil heating?		+	
Does the project activity require construction/rehabilitation of electricity supply, water lines, pipelines, access roads?	+		
Please enter a preliminary risk category for your project activity (please circle as appropriate): - social risk - environmental risk			Substantial Substantial

Annex 3. Social Screening Form

Information about the Project

Project name:	Regional Economic Development Project (RED-1) in Osh region and the city of Osh
Subproject name:	Development of Feasibility Study and DED of Infrastructure of Sulaiman-Too Complex (including Craftsmen Street) and Uzgen Historical and Architectural Complex
Location (region, city, village):	Osh and Uzgen city, Osh Region
Screening done: Initial and|or Final: _____ Date: 06/06/2024 Reason: Preparation of ESIA	Initial
Project/sub project start date	Unknown
Project/sub project completion date	Unknown
Brief description of the sub-project and types of planned works:	Reconstruction and Modernization of the Existing Infrastructure of the Historical and Cultural Heritage Sites: Sulaiman-Too Complex (including Craftsmen Street) and the Uzgen Historical and Architectural Complex
Does this subproject include the rehabilitation of existing facilities or will new works be required?	Reconstruction of facilities with construction of new elements for the STC and UHAC (including Craftsmen Street)
Is this subproject closely related to any other activities not funded by the Project?	No
Will this sub-project include any ancillary impact/activities off site?	No

Data on assets/persons potentially affected by the project and characteristics of the affected asset

Questions	Yes	No	Not Known	Observations, remarks
Impacts Due to Land Acquisition/ Donation				
Is the ownership status and current usage of land to be used for the construction known? Is it free from encumbrances?	+			The project territory belongs to the state and is free from encumbrances.
Is the land area for the project known? (Give estimates in comments, including property status, area, land use type, etc.).	+			STC – 78,89 ha UHAC- 2,76 ha State owned lands. No additional land required.
Is land for material mobilization or transport for the civil work available within the existing plot (Right of Way)? If not, provide the details on that land location, availability etc.	+			
Would the Project potentially involve temporary or permanent and full or partial physical displacement? (Specify in the remarks what type of displacement is anticipated)		+		
Would the Project potentially involve temporary or permanent and full or partial economical displacement (e.g., loss of assets or access to resources due to land acquisition/ donation or access restrictions – even in the absence of physical relocation)? (Specify in the remarks what type of displacement is anticipated)		+		
Is there any impact on illegal land use practices? Are there any non-titled people who are living/doing business on the proposed site/project locations that will be		+		

used for civil work? If yes, provide in the Note Section details on any temporary or permanent impact on them?				
If the site is privately owned, can this land be purchased through negotiated settlement?				State owned land
Will the land owners donate the land plot for the project?				No additional land required
Will there be loss of shelter and/or residential land due to land acquisition/ donation?		+		
Will there be loss of any productive assets due to land acquisition/donation?		+		
Will there be losses of crops, trees, and fixed assets due to land acquisition/donation?		+		
Will there be loss of businesses or enterprises due to land acquisition/donation?		+		
Will there be loss of income sources and means of livelihoods due to the subproject land acquisition/donation?		+		
Will any social or economic activities be affected by land use related changes?		+		
Will people lose access to natural resources, communal facilities, services or other assets as a result of land acquisition/donation or project implementation? Provide details in the remarks.		+		
Will project result in land use restrictions and/or easement rights? Provide details in the remarks.		+		
Will access to land and resources owned communally or by the state be restricted?		+		
Are there any previous land acquisitions happened and the identified land has been already acquired? Provide details in the Note section.		+		
Are there any land acquisition happening in frame of this project but without financing of the World Bank? Provide details in the Note section.		+		
Data on Impact and Vulnerable Groups				
Is there any estimate of the likely number of persons that will be displaced by the Project?		+		No LAR impact is expected
Are any of them poor, female-heads of households, or vulnerable to poverty risks? Provide some estímate		+		
Gender				
Is there a likelihood of impacts on gender equality and/or the situation of women and girls?		+		
Would the Project potentially reproduce discriminations against women based on gender, especially regarding access to assets, opportunities and benefits?		+		
Would the Project potentially limit women's ability to use, develop and protect natural resources?		+		
IV. Results of the screening				
Decision on project categorization After reviewing the responses above, the category of project is determined: The activities planned under this sub-project will have Substantial social impacts. The screening exercise revealed that no significant social risks and impacts are expected, which may entail land acquisition, restrictions on economic activities or physical displacement. Project with a category with a Substantial social risk.				
Prepared by National Resettlement Specialist Azamat Omorbekov, 06 June, 2024.				

Annex 4. Risk rating justification Form and WB Exclusion List

Risk rating justification:	
The risk category is **"High"**. Significant impact, exclude from financing The risk category is **"Significant".** Limited or temporary impact requiring significantmitigation, excluded from financing The risk category is **"Moderate".** Limited or temporary impact The risk category is **"Low".** No impact	Prep. By: Name and Signature: Designation: Date: Approved by: Name and Signature: Designation: Date:

Any sub-project annexes that include actions that are coincident with actions that are included in sub- project lists of excluded sub-projects for financing and that may have significant environmental or social risks will be disqualified. If the answer to one of the following questions is YES, then the application should be excluded.

Risk rating justification:

Exclusion List defines the types of projects that WB does not finance

The WB does not finance the following projects:

- High risk subprojects that have negative environmental or social impacts that are irreversible, create cumulative impacts and/or cannot be adequately mitigated;
- Activities that may cause significant impacts on biodiversity and ecosystem services.

Activities that may cause significant impacts on cultural heritage resources.

- Production or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements, or subject to international bans, such as pharmaceuticals, pesticides/herbicides, ozone depleting substances, PCB's, wildlife or products regulated under CITES.
- Production or trade in weapons and munitions.
- Production or trade in alcoholic beverages (excluding beer and wine).
- Production or trade in tobacco.
- Gambling, casinos and equivalent enterprises.
- Production or trade in radioactive materials. This does not apply to the purchase of medical equipment, quality control (measurement) equipment and any equipment where IFC considers the radioactive source to be trivial and/or adequately shielded.
- Production or trade in unbounded asbestos fibers. This does not apply to purchase and use of bonded asbestos cement sheeting where the asbestos content is less than 20%.
- Drift net fishing in the marine environment using nets in excess of 2.5 km. in length.
- Production or activities involving harmful or exploitative forms of forced labor[3]/harmful child labor[4].
- Production or trade in wood or other forestry products other than from sustainably managed forests.
- Production, trade, storage, or transport of significant volumes of hazardous chemicals, or commercial scale usage of hazardous chemicals. Hazardous chemicals include gasoline, kerosene, and other petroleum products.

A reasonableness test will be applied when the activities of the project company would have a significant development impact, but circumstances of the country require adjustment to the Exclusion List.

Any subprojects that include activities that coincide with those included in the lists of excluded subprojects for financing and that which may have significant environmental and social risks will be disqualified. If the answer to one of the following questions is YES, the subproject application shall be excluded.

[3] Forced labor means all work or service, not voluntarily performed, that is extracted from an individual under threat of force or penalty.

[4] Harmful child labor means the employment of children that is economically exploitive, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health, or physical, mental, spiritual, moral, or social development

Annex 5. Minimum Content of the Contractor's Site-Specific C-ESMP

This Annex defines the minimum structure and content of the Contractor's site-specific Environmental and Social Management Plan (C-ESMP). The Project-level ESMP is presented in Table 6 of the ESIA. Before mobilization and commencement of works, each Contractor shall prepare a site-specific C-ESMP for the relevant site or construction package. Where one contract covers several sites, a consolidated C-ESMP may be prepared, provided that it contains separate site-specific sections. The C-ESMP shall be reviewed and approved by the Engineer and ARIS Environmental and Social Specialists before the relevant works commence.

Description of the of the Environmental and Social Management Plan
The PIU will:

- identify the set of responses to potentially adverse impacts;
- determine requirements for ensuring that those responses are made effectively and in a timely manner; and
- describe the means for meeting those requirements.

Specifically, the ESMP's content will include:

Mitigation

(a) identifies and summarizes all anticipated significant adverse environmental and social impacts (including those involving indigenous people or involuntary resettlement); (b) describes--with technical details- -each mitigation measure, including the type of impact to which it relates and the conditions under which it is required (e.g., continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate; (c) estimates any potential environmental and social impacts of these measures; and (d) provides linkage with any other mitigation plans (e.g., for involuntary resettlement, indigenous peoples, or cultural property) required for the project.

Monitoring

Environmental monitoring during project implementation provides information about key environmental aspects of the project, particularly the environmental impacts of the project and the effectiveness of mitigation measures. Such information enables the borrower and the Bank to evaluate the success of mitigation as part of project supervision and allows corrective action to be taken whenneeded. Therefore, the ESMP identifies monitoring objectives and specifies the type of monitoring, with linkages to the impacts assessed in the EA report and the mitigation measures described in the ESMP. Specifically, the monitoring section of the ESMP provides(a) a specific description, andtechnical details, of monitoring measures, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions; and (b) monitoring and reporting procedures to (i) ensure early detection of conditions that necessitate particular mitigation measures, and (ii) furnish information on the progress and results of mitigation.

Capacity Development and Training

To support timely and effective implementation of environmental project components and mitigationmeasures, the ESMP draws on the EA's assessment of the existence, role, and capability of environmental units on site or at the agency and ministry level. If necessary, the ESMP recommends the establishment or expansion of such units, and the training of staff, to allow implementation of ESA recommendations. Specifically, the ESMP provides a specific description of institutional arrangements - who is responsible for carrying out the mitigation and monitoring measures (e.g., for operation, supervision, enforcement, monitoring of implementation, remedial action, financing, reporting, and staff training). To strengthen environmental management capability in the agencies responsible for implementation, most EMPs cover one or more of the following additional topics: (a) technical assistance programs, (b) procurement of equipment and supplies, and (c) organizational changes.

Implementation Schedule and Cost Estimates

For all three aspects (mitigation, monitoring, and capacity development), the ESMP provides (a) an implementation schedule for measures that must be carried out as part of the project, showing phasing and coordination with overall project implementation plans; and (b) the capital and recurrent cost estimates and sources of funds for implementing the EMP. These figures are also integrated into the project cost tables.

Integration of ESMP with Project

The borrower's decision to proceed with a project, and the Bank's decision to support it, is predicated inpart on the expectation that the EMP will be executed effectively. Consequently, the Bank expects the plan to be specific in its description of the individual mitigation and monitoring measures and itsassignment of institutional responsibilities, and it must be integrated into the project's overall planning, design, budget, and implementation. Such integration is achieved by establishing the ESMPwithin the project so that the plan will receive funding and supervision along with the other components.

The Environmental and Social Management Plan format provided in **Form below.** It represents a model for development of an ESMP. The ESMP should cover the three phases of the project: construction, operation and decommissioning. For each phase, the preparation team identifies any significant environmental impacts that are anticipated based on the analysis done in the context of preparing an environmental assessment. For each impact, mitigation measures are to be identified andlisted. Estimates are made of the cost of mitigation actions broken down by estimates for installation(investment cost) and operation (recurrent cost). The EMP format also provides for the identificationof institutional responsibilities for "installation" and operation of mitigation devices and methods.

To keep track of the requirements, responsibilities and costs for monitoring the implementation of environmental mitigation identified in the analysis included in an environmental assessment a monitoring plan is necessary. A **Monitoring Plan format** is provided below and includes a row for baseline information that is critical to achieving reliable and credible monitoring. The key elements of the matrix are:

- What is being monitored?
- Where is monitoring done?
- How is the parameter to be monitored to ensure meaningful comparisons?
- When or how frequently is monitoring necessary or most effective?
- Why is the parameter being monitored (what does it tell us about environmental impact)?

In addition to these questions, it is necessary to identify the costs associated with monitoring (both investment and recurrent) and the institutional responsibilities.

When a monitoring plan is developed and put in place in the context of project implementation, the PIU will request reports at appropriate intervals and include the findings in its periodic reportingto the World Bank and make the findings available to Bank staff during supervision missions.

Format of Environmental and Social Management Plan

Phase	Environmental Impact	Mitigating measures	Cost		Institutional responsibility		Remarks
			Install	Operate	Install	Operate	
Construction							
Operation							
Decommissioning							

Format of Environmental monitoring plan

Phase	Which parameter should be controlled?	Where will parameter be tracked?	How will parameter be controlled?	When will parameter be controlled?	Why is this parameter controlled?	Cost		Institutional responsibility	
						Install	Work	Install	Work
Basic									
Construction									
Operation									
Decommissioning									

Annex 6. Environmental and Social Management Plan - Checklist (ESMP Checklist)

General Guidelines for Using the ESMP Checklist

These general guidelines are presented in abbreviated form and prepared for projects with low, moderate and significant risks of environmental and social impact. It is expected that the best practices provided in the manual will be applicable to the use of a checklist for ESMP for small construction.

The checklist type format was developed to provide “best practice examples” and is intended for the convenience of users and is compatible with the requirements of WB social and environmental framework.

The Environmental and Social Management Plan (ESMP) checklist type format attempts to cover typical core approaches to mitigate construction contracts with little local impact. It is generally accepted that this format provides key elements of a Socialand Environmental Management Plan (ESMP) or the Fundamentals of Environmental and Social Management (FESM) to meet the requirements of the World Bank's environmental and social assessment according to ESS1. The purpose of this checklist is that it will be applicable as a guide for small-scale contractors and will become an integral part of tender documentation for contractors performing minor construction work under projects funded by the Bank.

The checklist consists of four sections:

Part 1 includes a narrative part that describes the project and defines technical content of the project in terms of institutional and legislative aspects, potential need for capacity building program and description of public consultation process. This sectioncan contain up to two pages. Applications for additional information can be supplemented if necessary.

Part 2 includes a checklist of environmental and social audits where activities and potential environmental issues can be checked in a simple Yes / No format. If any specific activity / problem is caused by a “yes” check, a link is made to appropriate section in the following table, which contains clearly defined measures for management and mitigation.

Part 3 presents a plan for monitoring activities during construction and project implementation. It retains the same format as that required by the ESMP proposed in accordance with the Bank’s usual requirements for projects with significant risk. The purpose of this checklist is to ensure that part 2 and part 3 are included in the tender documentation for contractors whose valueis determined during the bidding process, and careful implementation is monitored during the implementation of work.

Content of ESMP checklist include next points:

A. General information on project and sub-projects/works
B. Environmental and social impact analysis
C. Mitigation measures
D. Monitoring plan

Part 1. Project Information (point A)

INSTITUTIONAL & ADMINISTRATIVE ARRANGEMENTS				
Country				
Project title				
Scope activity of project				
Institutional arrangements (names and contacts)	WB (Project Team Leader)	Project Management	Local Counterpart and/or Recipient	
Implementation arrangements (name and contacts)	Safeguard Supervision	Local Counterpart Supervision	Local Inspectorate Supervision	Contactor
SITE DESCRIPTION				
Name of site				
Describe site location			*Attachment 1*: Site Map [ ]Y / [ ]N	
Who owns the land?				
Geographic description				
LEGISLATION				
Identify national & locallegislation & permits that apply to project activity				
PUBLIC CONSULTATION				
Identify when / where thepublic consultation process took place				
INSTITUTIONAL CAPACITY BUILDING				
Will there be any capacitybuilding? (Yes/No)	[ ], if Yes, *Attachment 2* includes the capacity building program			

Beneficiary: **Signature:** **Date:**

Part 2. ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT (point B) AND MITIGATION MANAGEMENT PLAN (point C) (CHECKLIST)

ENVIRONMENTAL /SOCIAL SCREENING				
Will the site activity include/involve any of the following:	**Activity**		**Status**	**Additional references**
	Building rehabilitation	[ ] Yes	[ ] No	See Section **B** below
	New construction	[ ] Yes	[ ] No	See Section **B** below
	Individual wastewater treatment system	[ ] Yes	[ ] No	See Section **C** below
	Historic building(s) and districts	[ ] Yes	[ ] No	See Section **D** below
	Acquisition of land or loss of assets	[ ] Yes	[ ] No	See Section **E** below
	Hazardous or toxic materials[5]	[ ] Yes	[ ] No	See Section **F** below
	Impacts on forests and/or protected areas	[ ] Yes	[ ] No	See Section **G** below
	Handling / management of medical waste	[ ] Yes	[ ] No	See Section **H** below
	Traffic and Pedestrian Safety	[ ] Yes	[ ] No	See Section **I** below
	Labor Conditions and OHS	[ ] Yes	[ ] No	See Section J below
	Occupational Health and Safety of Workers	[ ] Yes	[ ] No	See Section K below
	Community outreach and GRM	[ ] Yes	[ ] No	See Section L below
	Community health and safety	[ ] Yes	[ ] No	See Section M below

ACTIVITY	**PARAMETER**	**MITIGATION MEASURES CHECKLIST**
A. General Conditions	Notification and WorkerSafety	– The local construction and environment inspectorates and communities have been notified of upcomingactivities – The public has been notified of the works through appropriate notification in the media and/or at publiclyaccessible sites (including the site of the works) – All legally required permits have been acquired for construction and/or rehabilitation – All work will be carried out in a safe and disciplined manner designed to minimize impacts on neighboring residents and environment. – Workers will comply with international good practice (always hardhats, as needed masks and safety glasses,harnesses and safety boots) – Appropriate signposting of the sites will inform workers of key rules and regulations to follow.
B. General Rehabilitation and /or Construction Activities	Air Quality	– During interior demolition use debris-chutes above the first floor – Keep demolition debris in controlled area and spray with water mist to reduce debris dust – Suppress dust during pneumatic drilling/wall destruction by ongoing water spraying and/or installing dust screen enclosures at site – Keep surrounding environment (sidewalks, roads) free of debris to minimize dust There will be no open burning of construction / waste material at the site – There will be no excessive idling of construction vehicles at sites

[5] Toxic / hazardous material includes and is not limited to asbestos, toxic paints, removal of lead paint, etc.

	Noise	– Construction noise will be limited to restricted times agreed to in the permit – During operations the engine covers of generators, air compressors and other powered mechanical equipment should be closed, and equipment placed as far away from residential areas as possible
	Water Quality	– The site will establish appropriate erosion and sediment control measures such as e.g. hay bales and / or silt fences to prevent sediment from moving off site and causing excessive turbidity in nearby streams and rivers.
	Waste management	– Waste collection and disposal pathways and sites will be identified for all major waste types expected from demolition and construction activities. – Mineral construction and demolition wastes will be separated from general refuse, organic, liquid and chemical wastes by on-site sorting and stored in appropriate containers. – Construction waste will be collected and disposed properly by licensed collectors – The records of waste disposal will be maintained as proof for proper management as designed. – Whenever feasible the contractor will reuse and recycle appropriate and viable materials (except asbestos)
C. Individual wastewater treatment system	Water Quality	– The approach to handling sanitary wastes and wastewater from building sites (installation or reconstruction) must be approved by the local authorities – Before being discharged into receiving waters, effluents from individual wastewater systems must be treated in order to meet the minimal quality criteria set out by national guidelines on effluent quality and wastewater treatment – Monitoring of new wastewater systems (before/after) will be carried out
D. Historic building(s)	Cultural Heritage	– If the building is a designated historic structure, very close to such a structure, or located in a designated historic district, notify and obtain approval/permits from local authorities and address all construction activities in line with local and national legislation – Ensure that provisions are put in place so that artifacts or other possible “chance finds” encountered in – excavation or construction are noted, officials contacted, and works activities delayed or modified to account for such finds.
E. Acquisition of land or loss of assets	Activity will not eligible	– If the activity will result in the taking of land resulting in: involuntary land acquisition or displacement of third parties using land; loss of assets or access to assets; or loss of income sources or means of livelihood, whether or not the affected persons must move to another location it will not be financed.
F. Toxic Materials	Asbestos management	– If asbestos is located on the project site, mark clearly as hazardous material – When possible the asbestos will be appropriately contained and sealed to minimize exposure – The asbestos prior to removal (if removal is necessary) will be treated with a wetting agent to minimize asbestos dust – Asbestos will be handled and disposed by skilled & experienced professionals – If asbestos material is being stored temporarily, the wastes should be securely enclosed inside closed containments and marked appropriately – The removed asbestos will not be reused
	Toxic / hazardous waste management	– Temporarily storage on site of all hazardous or toxic substances will be in safe containers labeled with details of composition, properties and handling information – The containers of hazardous substances should be placed in a leak-proof container to prevent spillage and leaching – The wastes are transported by specially licensed carriers and disposed in a licensed facility.
		– Paints with toxic ingredients or solvents or lead-based paints will not be used
G. Affects forests and/or protected areas	Protection	– All recognized natural habitats and protected areas in the immediate vicinity of the activity will not be damaged or exploited, all staff will be strictly prohibited from hunting, foraging, logging or other damaging activities. – For large trees in the vicinity of the activity, mark and cordon off with a fence large tress and protect root system and avoid any damage to the trees – Adjacent wetlands and streams will be protected, from construction site run-off, with appropriate erosion and sediment control feature to include by not limited to hay bales, silt fences – There will be no unlicensed borrow pits, quarries or waste dumps in adjacent areas, especially not in protected areas.

H. Disposal of medical waste	Infrastructure for medical waste management	– In compliance with national regulations the contractor will insure that newly constructed and/or rehabilitated health care facilities include sufficient infrastructure for medical waste handling and disposal; this includes and not limited to: – Special facilities for segregated healthcare waste (including soiled instruments "sharps", and human tissue or fluids) from other waste disposal; and – Appropriate storage facilities for medical waste are in place; and – If the activity includes facility-based treatment, appropriate disposal options are in place and operational
I. Traffic and Pedestrian Safety	Direct or indirect hazards to public traffic and pedestrians by construction activity	– In compliance with national regulations the contractor will insure that the construction site is properly secured and construction related traffic regulated. This includes but is not limited to – Signposting, warning signs, barriers and traffic diversions: site will be clearly visible and the public warned of all potential hazards – Traffic management system and staff training, especially for site access and near-site heavy traffic. Provision of safe passages and crossings for pedestrians where construction traffic interferes. – Adjustment of working hours to local traffic patterns, e.g. avoiding major transport activities during rush hours or times of livestock movement – Active traffic management by trained and visible staff at the site, if required for safe and convenient passage for the public. – Ensuring safe and continuous access to office facilities, shops and residences during renovation activities, if the buildings stay open for the public.
S. Labor Conditions	Child and Forced Labor, Working conditions, Worker GRM	Labor relations: The workers involved are considered to be the contractor's labor force and therefore the following requirements must be met: – Child labor (children under 18 years of age) to perform any type of work at the facility is completely prohibited; – The contractor signs contract with each worker, which will have rights and obligations with observance of labor norms, that is • 8-hour working day, and if it exceeds the set time, take into account extra-time with appropriate payment; • 40-hour work week; • 1 hour for lunch; – The Contractor shall sign with each worker a code of conduct consistent with international practice which should be followed, otherwise dismissal of workers and collection of proportionate financial penalties are possible; – Raise workers' awareness of the general principles of communication management with the local population;
		– Organize access of workers to toilets and areas for hand washing, which should be provided with hot and cold water, soap and a hand dryer in sufficient volume; – Develop a system for worker's grievance redress. Living conditions: Given that planned work is short-term, unskilled workers should, whenever possible, be recruited from local communities, and women should be recruited to do light work. If local workers will be involved in the work, then there is no need to provide jobs for temporary residence, but there is need to providethem with adequate conditions (sleeping places, kitchen, showers, toilets, etc.). If workers from other regions or cities and villages who do not have their homes in the place of repair work willbe involved in the work, then the contractor must provide them with housing. Housing must be provided with thefollowing conditions: – Bedrooms with beds; – Kitchens with the ability to cook food, store food; – Sanitary conditions (shower or bath, toilet, place where clothes can be washed); – In the cold season - heating; – Central power supply.

T. Occupational Health and Safety of Workers	COVID prevention measures, safety measures	Health protection: – At the construction site, it is necessary to have a medical first aid kit for persons who have been injured. – Daily measurement of the temperature of employees before the start of work on the construction site. – Regular activities with all employees at the construction site regarding compliance with the requirements for COVID-19 prevention; Safety of employees: – Provide safety training prior to commencement of each type of work and regularly check safety compliance. – Provide special clothing (masks, gloves and safety glasses, for repair work also helmets and protective shoes), personal protective equipment, tools, materials; – Provide necessary equipment for high-altitude works (temporary fences, safety belts and ropes, etc.)
U. CommunityOutreach	Public relations and Grievance Redress Mechanism	– The contractor will appoint one of his employees as a contact person who is responsible for communication with the local community, as well as for receiving complaints / complaints from the local community. – The contractor is obliged to consult with local communities to resolve conflict situations between interested parties, including between workers and local communities. – Inform the nearby population about the repair schedule. Limit construction work at night. – Provide a Grievance Redress Mechanism for stakeholders and communicate information to them.
V. Community health and safety	Exposure to dangerous agrochemicals	– Prepare, consult and disclose the site-specific Pest Management Plans – Implement and report on information and education campaigns among farmers or their family members who perform manual labor in areas treated with pesticides, and can also face major exposure from direct spray, drift from neighboring fields, or by contact with pesticide residues on the crop or soil.

PART 3: MONITORING PLAN (point D)

Phase	What (Is the parameter to be monitored?)	Where (Is the parameter to bemonitored?)	How (Is the parameter tobe monitored?)	When (Define the frequency / or continuous?)	Why? (Is the parametertobe monitored?)	Cost (if not included in project budget)	Who (Is responsible for monitoring?)
During activity **preparation**							
During activity **implementation**							
During activity **supervision**							

Annex 7. Occupational Health and Safety Plan (template)

The Occupational Health and Safety Plan (OHS Plan) apply to all project construction or reconstruction sites and any related areas. Contractors employed by Project are legally responsible for their construction sites and related areas and must follow the provisions of the Project OHS Plan within those locations.

An Occupational Health and Safety (OHS) Plan is a comprehensive approach aimed at ensuring the safety and health of employees within a working environment. The plan sets out processes and practices to help prevent injuries, illnesses, and fatalities on the job. Its emphasis is on proactive measures to identify and manage workplace hazards, thereby reducing risks.
Here's a structured approach to documenting an OHS plan for construction activities:

1. Introduction:
   - Purpose of the OHS plan.
   - Scope (covering which areas, departments, or activities).
   - Objectives and goals.
2. Policy Statement:
   - A formal statement by senior management outlining the organisation's commitment to health and safety.
3. Roles and Responsibilities:
   - Clearly define the responsibilities of everyone from senior management to individual employees.
   - Include any dedicated safety roles, like Safety Officers or Safety Committee members.
4. Hazard Identification and Risk Assessment:
   - Detailed procedure for identifying hazards.
   - Methodology for assessing the risks associated with those hazards.
5. Control Measures:
   - Procedures to eliminate or mitigate identified risks.
   - Hierarchy of control measures: elimination, substitution, engineering controls, administrative controls, and personal protective equipment (PPE).
6. Training and Education:
   - List of required training programs.
   - Schedule for regular training and refresher courses.
   - Procedure for documenting training and maintaining records.
7. Emergency Procedures:
   - Detailed plans for foreseeable emergency scenarios (e.g., earthquakes, fire, chemical spills, medical emergencies, and structural instability).
   - Earthquake preparedness shall include evacuation routes, assembly points, communication procedures, responsible persons and periodic drills.
   - Evacuation routes and assembly points.
   - Contact details for emergency services.
8. Monitoring and Review:
   - Inspection schedules and procedures.
   - Health surveillance programs (if required).
   - Process for regular review of the OHS plan's effectiveness.
9. Incident Reporting and Investigation:
   - Procedures for reporting incidents, accidents, or near misses.
   - Steps for conducting investigations.
   - Corrective action processes.
10. Communication and Consultation:
    - Mechanisms for sharing safety-related information.
    - Procedures for addressing concerns or feedback from employees.
11. Documentation and Record Keeping:
    - List of essential safety records.
    - Procedures for maintaining, storing, and accessing these records.
12. Legal and Regulatory Compliance:
    - Reference to applicable laws, regulations, and standards.
    - Procedures to ensure ongoing compliance

Once the Occupational Health and Safety plan is documented, it should be shared throughout the organisation, ensuring all employees have access to it. Regularly review and update the document, especially after significant changes in operations, after incidents, or when new information becomes available.

Annex 8. Cultural Heritage Management Framework (ESS8)

Purpose:

This framework outlines the approach and guiding principles for the protection, conservation, and management of tangible and intangible cultural heritage during the reconstruction of the Sulaiman-Too Complex (STC) and the Uzgen Historical and Architectural Complex (UHAC). It complies with the World Bank Environmental and Social Standard ESS8 – Cultural Heritage and the Law on the Protection and Use of Historical and Cultural Heritage of the Kyrgyz Republic.

Objectives:

- Prevent adverse impacts on cultural heritage during design, construction, and operation phases.
- Preserve the authenticity and integrity of the STC and UHAC sites.
- Promote the participation of cultural heritage authorities and local communities in heritage conservation activities.

Key Measures:

1. Integration into Design: All design and construction documents shall undergo review by the Ministry of Culture and local museum authorities to ensure consistency with heritage protection norms.
2. Heritage Oversight: A qualified conservation specialist or archaeologist shall be engaged to supervise all restoration works.
3. Use of Compatible Materials and Techniques: Construction methods and materials must match the original heritage features, as approved by the supervising authority.
4. Documentation: All works, interventions, and findings shall be documented (before, during, and after) and stored in the heritage archive of the site.
5. Stakeholder Engagement: Continuous consultation with heritage authorities, UNESCO representatives (if applicable), and local communities.
6. Monitoring: Heritage supervision reports to be submitted to ARIS and the Ministry of Culture after each major stage of restoration.

Responsibility:

Implementation will be coordinated by the PIU Environmental and Social Specialists together with the Ministry of Culture and heritage site management authorities.

Annex 9. Chance Find Procedure

Purpose and Scope: This procedure is designed to protect cultural heritage and ensure compliance with the legislation of the Kyrgyz Republic and the World Bank's Environmental and Social Standard 8 (ESS8).

It is intended for immediate use by all participants in the RED-1 project, including contractors, suppliers, ARIS staff and temporary workers, in the event of the accidental discovery of objects of potential cultural, archaeological, historical or religious value.

What constitutes an incidental find.

An incidental find is defined as any unintentional discovery made during project activities (including delivery, excavation, installation of temporary infrastructure, etc.):

• archaeological sites, pottery, stone or metal tools;
• human remains or mass graves;
• remains of ancient structures, foundations, roads or walls;
• religious objects, symbols, engravings, commemorative plaques;
• any unusual objects that clearly differ from the natural soil or rock.

Step-by-step response procedure

Step 1 – Immediate suspension of work

• Person responsible: Any person involved in the project who has discovered the object (worker, driver, engineer, etc.).
• Actions:
- Immediately cease all work within a radius of at least 10–15 metres of the site where the object was found.
- Do not touch, move or attempt to remove the object.
- Secure the area to prevent further disturbance.

Step 2 – Notification

• Person responsible: Site manager or the person responsible for safety measures on site.
• Actions:
o Notify:
- the designated ARIS security officer,
- and, where possible, local cultural bodies or the local council.

Step 3 – Temporary protection

• Person responsible: Contractor, site coordinator (site manager).
• Actions:
- Set up temporary barriers (cordon tape, pallets, homemade fencing).
- Assign someone to monitor the area until the authorities arrive.
- Prevent any unauthorised access.

Step 4 – Documentation

• Responsible party: ARIS safety officer or contractor.
• Actions:
- Fill in the form to report a chance find
- Take photographs from different angles.
- Record the GPS coordinates.
- Prepare a brief written description (what, where, when, who found it).

Step 5 – Notifying the authorities

• Responsible: Project coordinator
• Actions:
- Within 24 hours, send detailed information to: the Ministry of Culture, Information, Sport and Youth Policy of the Kyrgyz Republic or to the local cultural authorities, as appropriate.

Step 6 – Deciding on the next steps

• Responsible party: In coordination with the competent authority for the protection of cultural heritage.

• Possible actions:

1. Allow work to resume (if the object is of no value),
2. Secure the object temporarily for further investigation,
3. Adjust work routes/locations (if the object is of value),
4. Transfer the object to a museum or archive (if it is safe to do so and permission has been granted).

Step 7 – Resuming operations

• Work may only resume following official written or verbal authorisation, duly recorded in the on-site work log.

4. Implementation principles

• Training on the detection of stray objects must be included in the mandatory health and safety briefings for all contractors.
• All supporting materials (brochure, contact list, incident report form) must be kept in the mobile documentation kit on site.

Annex 10. Environmental and Social Clauses for Bidding Documents

These standard clauses are to be inserted into all construction bidding documents and contracts to ensure compliance with the ESIA and the World Bank's Environmental and Social Standards.

1. General Requirements:

   Contractors shall comply with all environmental, social, occupational health and safety, and cultural heritage protection measures outlined in the ESIA and ESMP.

2. Contractor's Environmental and Social Management Plan (C-ESMP):

   Prior to commencing works, the Contractor must prepare a C-ESMP consistent with the ESIA, ESMP, and ESS requirements. It shall include:

   - site-specific mitigation and monitoring plans;
   - OHS, waste management, and emergency preparedness procedures;
   - Chance Find Procedure;
   - procedures for the protection of existing artifacts, museum exhibits, archival materials, and other movable cultural objects, including inventory and condition recording, authorized relocation or in-situ protection, access control, physical security, and incident response;
   - Code of Conduct for workers; including explicit prohibitions on unauthorized touching, handling, movement, removal, concealment, damage, destruction, collection, purchase, sale, or other interference with artifacts and movable cultural objects;
   - reporting and supervision mechanisms.

3. Labor and Working Conditions:

   Contractors shall comply with the national Labor Code and the World Bank's ESS2, including requirements for written contracts, non-discrimination, and grievance mechanisms for workers.

4. Community Health and Safety:

   Measures must be in place to protect the public from hazards, restrict access to construction sites, and communicate risks to local residents.

5. Cultural Heritage Protection:

   Contractors shall implement specific measures to protect existing artifacts, museum exhibits, archival materials, and other movable cultural objects from theft, unauthorized removal, loss, accidental damage, destruction, contamination, or improper handling during works.

   Before works commence in or adjacent to areas containing movable cultural objects, the Contractor and the museum administration shall prepare or verify a photographic inventory and condition record of all potentially affected objects. Such objects shall be relocated to a secure area where feasible, solely by authorized museum personnel or qualified conservation specialists. Where relocation is not feasible, the objects shall be protected in situ using appropriate conservation-compatible covers, rigid barriers, lockable enclosures, vibration protection, or other measures approved by the museum administration.

   Access to exhibition, collection, and storage areas shall be restricted to authorized personnel and controlled through designated entry points, key control, and access records. Appropriate physical security measures shall be maintained, including lockable rooms or enclosures, temporary security barriers, security personnel, adequate lighting, and use of existing CCTV systems where available.

   Any suspected theft, loss, unauthorized movement, damage, or destruction of an artifact or movable cultural object shall result in immediate suspension of works in the affected area. The area shall be secured, and the museum administration, the Engineer, and ARIS shall be notified immediately. Works may resume only after the incident has been documented, investigated, and the necessary corrective measures have been implemented.

   Contractors shall also follow the approved Chance Find Procedure and immediately report any chance finds in accordance with Annex 9.

6. Training and Awareness:

   Contractors shall ensure that all workers and subcontractors receive mandatory training before starting work on environmental, social, occupational health and safety, and cultural heritage protection requirements. Cultural heritage training shall cover restricted areas, identification and protection of artifacts and movable cultural objects, access and handling rules, physical security measures, relevant prohibitions under the workers' Code of Conduct, reporting of theft, loss or damage, stop-work requirements, and the Chance Find Procedure. Refresher training shall be provided during construction and following any significant incident or non-compliance.

7. Monitoring and Reporting:

   Regular reports on environmental and social performance, incidents, and non-compliance shall be submitted to ARIS and the Engineer. Reports shall include the implementation status of cultural heritage protection measures, worker training, access-control arrangements, condition and inventory records, and any suspected theft, loss, unauthorized movement, damage, or destruction of artifacts or movable cultural objects. .

8. Sanctions:

   Non-compliance with ESMP or ESS requirements may result in contract suspension, financial penalties, or termination.